WORKING CAPITAL MANAGEMENT
OF
Nepal Telecom

BY

Guras Atreya

Tribhuvan Multipale Campus

T.U. Reg. No: 5-1-49-42-2000

A THESIS

SUBMITTED TO

Office of the Dean

Faculty of Management, Tribhuvan University

In Partial fulfillment of the Requirements for the

Master's Degree in Business Studies (M.B.S)

June 2012

त्रिभुवन विश्वविद्यालय
Tribhuvan University
त्रिभुवन बहुमुखी क्याम्पस
Tribhuvan Multiple Campus

तानसेन, पाल्पा, नेपाल
Tansen, Palpa, Nepal
☎ 075-520030, 520114, 520116
Fax : 075-520114
क्याम्पस प्रमुखको कार्यालय
Office of the Campus Chief

प.सं./Ref No. :-
च.नं. :-

मिति/Date:-

RECOMMENDATION

This is to certify that the thesis

Submitted by
Guras Atreya

Entitled

Working Capital Management of Nepal Telecom

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

.....
Keshav Sharma
Supervisor

त्रिभुवन विश्वविद्यालय
Tribhuvan University
त्रिभुवन बहुमुखी क्याम्पस
Tribhuvan Multiple Campus

तानसेन, पाल्पा, नेपाल
Tansen, Palpa, Nepal
☎ 075-520030, 520114, 520116
Fax : 075-520114
क्याम्पस प्रमुखको कार्यालय
Office of the Campus Chief

प.सं./Ref No. :-
च.नं. :-

मिति/Date:-

Approval Sheet

This is to certify that the thesis

Submitted by :

Guras Atreya

Entitled :

Working Capital Management of Nepal Telecom

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

…… ……

Keshav Raj Sharma

(Thesis Supervisor) **(Head of Research Committee)**

त्रिभुवन विश्वविद्यालय
Tribhuvan University
त्रिभुवन बहुमुखी क्याम्पस
Tribhuvan Multiple Campus

तानसेन, पाल्पा, नेपाल
Tansen, Palpa, Nepal
☎ 075-520030, 520114, 520116
Fax : 075-520114
क्याम्पस प्रमुखको कार्यालय
Office of the Campus Chief

प.सं./Ref No. :-
च.नं. :-

मिति/Date:-

VIVA- VOCE SHEET

We have conducted the viva- voce examination of the Thesis

Submitted by:
Guras Atreya

Entitled

Working Capital Management of Nepal Telecom

and found the thesis to be the original work of the student written in accordance with the prescribed format. We recommend the Thesis to be accepted as partial fulfillment of the requirement for Master's Degree of Business Studies (MBS)

Viva - Voce Committee

Chairperson, Research Committee: ……

Member (Thesis Supervisor): ……

Member (External Expert): ……..

DECLARATION

I hereby, declare that the work reported in this thesis entitled "Working Capital Management of Nepal Telecom submitted to Research Department of Tribhuvan Multipal Campus, Tansen Palpa., is my original work done in the form of partial fulfillment of the requirements for the Masters of Business Studies (MBS) under the supervision of Lecturer Keshav Sharma Tribhuvan Multipal Campus, Tansen Palpa.

Date:

Guras Atreya
Tribhuvan Multipal Campus

ACKNOWLEDGEMENT

The thesis report on the comparative study on **Working Capital Management of Nepal Telecom Company Limited** has been prepared in partial fulfillment of the requirement for the Degree of Master's in Business Studies. On the journey of reaching this final step of my work, I would like to thank all those who have directly and indirectly helped and supported me in many ways. In other word, I will not be able to justify my work without acknowledging those who have significantly contributed to my thesis work. So I want to express my heartfelt thanks to all of them.

It has been a matter of great pleasure for me to complete this thesis under the supervision of Keshav sharma lecturer of Tribhuvan Multipal Campus. I appreciate his kind guidance, valuable supervision, constructive comments and inspiration during the preparation of this thesis. I am also thankful to all the staffs of the library and administration of Tribhuvan Multipal Campus.

Similarly, I would like to express my debt of gratitude to my family members for their continuous inspiration and support during the entire period of the study. I owe thanks to my friends and colleagues for helping and supporting me in many ways.

Finally, I would not want to state that this thesis is perfect but may have various limitations and shortcomings. Nevertheless, I have tried my best.

Guras Atreya

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

AFS	=	Advanced Free Phone Service
CA	=	Current Assets
CA	=	Current Assets
CCC	=	Cash Conversion Cycle
CDMA	=	Code Division Multiple Access
CL	=	Current Liabilities
CL	=	Current Liabilities
HCD	=	Home Country-Direct Service
HSI	=	High Speed Internet
ICP	=	Inventory Conversion Period
IN	=	Intelligent Network Service
ITU	=	International Telecommunication Union
IVR	=	Interactive Voice response Service
MBA	=	Masters of Business Administration
MBS	=	Masters of Business Studies
NDC	=	Nepal Doorsanchar Company Limited
NGN	=	Next Generation Network
NT	=	Nepal Telecom
NTC	=	Nepal Telecommunication Corporation
PCC	=	Prepaid Calling Card Service
PCL	=	PSTN-Credit Limit Service
PDP	=	Payable Deferred Period
PSTN	=	Public Switch Telephone Network
RCP	=	Receivable Conversion Period
TA	=	Total Assets
TU	=	Tribhuvan University
VAS	=	Value Added Service
VMS	=	Voice Mail Service

WC	=	Working Capital
WCDMA	=	Wireless Code Division Multiple Access
WCM	=	Working Capital Management
WLL	=	Worldwide Local Loop

Chapter 1

Introduction

1.1 Background of the Study

The growth of Nepal Telecom is not so long in comparison with other developed or developing countries. Nepal Telecommunication Corporation was established on 1st Asadh 2032 under the Communication Act 2028. Before its establishment, telecom services were conducted by Telecom Development Board, a government body under Ministry of Communication of Nepal. Now, Nepal Doorsanchar Company Limited (Nepal Telecom) was registered on 22nd Magh 2060 under Company Act 2053 and the notice to this effect was published in Nepal Gazette dated 26th Chaitra 2060, after dissolving the then NTC. However, the company name was officially effective from 1st Baisakh 2061 (13th April 2004) and also known to the general public by the name Nepal Telecom as registered name. NT is the member of ITU and Intelsat. NT as a progressive, customer spirited and consumer responsive entity is committed to provide nation-wide reliable telecommunication services to serve as an impetus to the social, political and economic development of the country. "At present, NT is providing voice service via PSTN, CDMA, GSM and 3G technologies to its fixed and mobile subscribers. It has been providing other value added services like VMS, IVR, IN, PCC, AFS, PCL, HCD services. In addition, NT also provides internet service to its fixed/mobile subscribers and data service to corporate customers via leased lines" (Nepal Doorsanchar Company Ltd, Annual Report).

Vision of NT is to remain a leading player in telecommunication sectors in the country while also extending reliable and cost effective services to all. "As per the framework of the currently running 11th plan, NT plans to increase its basic telephony penetration by around 4% and to provide broadband services in the form of HSI. The first three years of the 11th plan covers the implementation of NGN to expand around 500K voice and 125K DSL and deploy various access notes throughout the country."

In order to make telecommunication sector more competitive and liberalized the than HMG/N has introduced and also started to implement the new telecommunication act and

policy. Private sector has been given license to operate mobile and (WLL) based telephone services. The issue of privatization of NT has been raised as a major question in the environment of private sector participation and competition. There are so many argue for and against the privatization of NT. The top level manager are showing their conflicting views and already decided to introduce competition in all telecommunication services including mobile and international services from the year 2001 as a major condition for membership.

1.2 Focus of the Study

As discussed earlier, the debate of privatization of NT becomes a burning issue. Argues both for and against are concerned to the quality service and profitably existence of NT. The financial statements shows that the gross revenue as well as net profit have increased at higher rate from 6% in the fiscal year 2063/064 to 34.8% for the fiscal year 2064/065. NT was in loss of (5%) in the fiscal year 2065/066.Then after its net profit for the fiscal year 2066/067 and 2067/068 to today of 24% respectively. It showed that the gross revenue as well as net profit increasing rate of the company were lower in comparison with the earlier years. This lower trend will be continuing in the coming years because it has become inherent to come with huge reduction in call charges. If this situation comes, it may require substituting that reduced portion of revenue by national revenue to maintain the existing profitability trend intact. The profitability position of the corporation has to be examined from the point of view of probable competitive market of investment also to establish the real capability of return on investment.

Although NT has far better performance than other State Owned Enterprises (SOEs) of Nepal, in the sense that it is such a public enterprise which is operating under the net profit position since its establishment, the coming days are not as easy as earlier because its days of monopoly are almost over now. Its profitability definitely, can be considered as major indication of financial performance. However, only net profit cannot ascertain that its assets are financed appropriately and sources and application of fund have been effectively mobilized, so the need of study on existing working capital position to observe and evaluate the sources and application of funds in NT is considered relevant. Thus this study will assess

whether the size, liquidity, efficiency and profitability of working capital in NT is adequate or not and provide suggestions for sound working capital position and maximize profitability of NT in future days. Thus the research was focused on analysis of the working capital management of NT.

1.3 Statement of the Problem

Working Capital management was not found to have followed uniform policy on net working capital. Almost all of them have suggested the NT management to estimate immediate required funds and either invest the excess fund in marketable securities or use that fund in refunding debt. They have suggested utilizing its own internal fund rather than accepting high interest bearing loans for capital investment, since the rate of earning in liquid fund is less than the interest it pays for the loan amount. The studies have shown that the liquidity position of the company is quite high as it keeps capacity to pay off whole debt at once. The question arises here, ' Does a company engaged in public utility service need so high position of liquidity?'

Talking the above problem under consideration, some research questions are raised as follows:

- Are the size, liquidity, efficiency and profitability of working capital in NT is adequate or not?
- What is the (year-wise) working capital position of Nepal Telecom?
- Is restructuring of capital needed in the context of the internal financing?
- How the sources of funds are created and mobilized?
- Did the huge amount of cash and bank balance may cause to lose its profitability?
- Can NT make better utilization of excess cash amount by investing in marketable securities?
- Is severe efforts needed to collect the outstanding bills immediately?

1.4 Objectives of the Study

The objectives are to gain an insight into the management of working capital in NT. More specifically, the following general objectives can be outlined:

- To examine and critically analyze the working capital management of Nepal Telecom.
- To evaluate working capital of the NT and analyze their assets structure and their implications.
- To analyze of working capital trend position of Nepal Telecom .
- To analyze the financial position of NT by using different tools and techniques.
- To examine liquidity position and profitability position of Nepal Telecom.
- To assess the size and growth of working capital, and
- To recommend viable suggestions to cope up with working capital management shortcomings in Nepal Telecom.

1.5 Limitation of the Study

i. This study is mainly based on balance sheet and income statement maintained by the company and published in annual reports, where the various types of information were given in condensed form.
ii. The study covers the information of only past five years data from 2063/64 to 2067/68.
iii. This study will only concern with the Working Capital factors.
iv. This study and its results and its result will depend on the availability and reliability of the data.
v. Time and resource constrains may limit the areas covered by the study,

The limit time available to submit the thesis for the partial fulfillment of MBS in the main constraints of the study.

1.6 Organization of the Study

This study is about the Working Capital Management of Nepal Telecom. This study was divided into main five chapters. They are as follows:

Chapter- I: Introduction

The first chapter is introductory chapter; it contained general background of the study, size of the study, statement of the problem, objectives of the study, significance of the study and limitation of study.

Chapter- II: Review of Literature

The second chapter dealt with the review of literature broadly divided into many parts, which included published books, article, reports, dissertation and journal related to the topic of the study.

Chapter- III: Research Methodology

The third chapter deals with the research methodology, which consists of research design, population and sampling, sources of data and information along with different analytical tools that have been applied in the study.

Chapter- IV: Data Presentation and Analysis

The fourth chapter presents the main aspects of the study. It dealt with systematic presentation and analysis of data where various financial and statistical tools and technique were used to analyze and interpret data. It also included the main findings based upon analysis.

Chapter- V: Summary, Conclusion and Recommendations

Finally, in the fifth chapter whole study was summarized. Conclusion of the whole study and supply of some valuable recommendation for the improvement were done.

Bibliography and other appendixes used in statistical result were attached at the end of the study.

CHAPTER - II

REVIEW OF LITERATURE

This chapter is basically concerned with review of literature relevant to the topic **"Working Capital of Nepal Telecom."** Every study is very much based on past knowledge. The previous study cannot be ignored because they provide the foundation to the present study. There must be continuity in research. This continuity in research is ensured by linking the present study with past research studies. This chapter highlights the literature that is available in concerned subject as to my knowledge, research work, and relevant study on this topic, review of journals and articles and review of thesis work performed previously. The study about Nepal Telecommunication Corporation has been streamlined to some extend in the first chapter regarding growth, objectives, statement of problem and working capital practices in general. The main objective of this chapter is to clarify the need of the study rationally and systematically. Moreover, in order to make the study more comprehensive it is important to go through relevant literature. This chapter covers the following aspects.

- Conceptual framework
- Concept of Working Capital
- Classification of Working Capital
- Need and Importance of Working Capital
- Working Capital Policy
- Financing of Working Capital
- Working Capital Cash Conversion Cycle
- Determinants of Working Capital
- Review of different studies

2.1 Conceptual Framework

The term "Working Capital Management" is concerned only with the management of current assets and current liabilities of the organization which is necessary for day to day operation.

Every company has variable and permanent working capital. Hence, the success and failure of any organization depend on it. So far as the management of working capital in Nepalese organization, concerned a number of studies have been undertaken by different management experts and students of MBS/MBA.

Working capital is the amount of fund that id needed to finance the current assets of the firm. Since the current assets are normally converted into cash within one year. Working capital helps revolving within one year or less through different current assets. One the fund is converted into current assets, it is constantly converted into cash and cash outflow in exchange for other current assets (Weston, 1981:137). Working capital is a furnish investment in short term assets (Poudel, Gautam, Dhahal, Rana, 2062: 322). Working capital is a firm's investment in short term assets, cash, short term securities, account receivables and inventories (Weston, 1984:266). Working capital involves deciding upon the account and composition of current assets and to finance these assets. The decision involves trade of between risk and profitability (Kuchhal, 1988:156).

The goal of working capital management is to manage the current assets and liabilities of the firm to keep at satisfactory level. It helps the organization to operate day to day transaction and operation without any interruption. If the firm cannot maintain the satisfactory level of working capital, it is likely to become insolvent and may even be forced into bankruptcy.

2.2 Concept of Working Capital

Working capital is a controlling nerve of every business organization because no organization can run smoothly without the proper control upon it. Thus, it plays the crucial role in the success and failure of the organization. As the management of current assets and current liabilities of the business organization is necessary for day-to-day operations, it plays the key role in the success and failure of the organization in the short run as well as in the long run also.

Every organization needs various types of assets in order to carry out its function without any

interruption. They are fixed and current assets. Some fixed assets have physical existences and are required to produce goods and services over long period. These types of fixed assets are called tangible fixed assets. It includes land, building, plant, machinery, furniture, and so on. But some other fixed assets do not generate goods and services directly. However, it reflects the right of the firm. It is called intangible fixed assets. It represents patents, copyrights, trademarks, and goodwill. Both types of fixed assets are written off over a period of time.

Current assets are those resources of the firm, which are either held in the form of cash or expect to be converted into cash within operating cycle of the business. It includes, cash, marketable securities, account receivables, stock of raw materials, work-in-progress, and finished goods. Among these, some assets are required to meet the need of regular production and some for day-to-day expenses and short-term obligations.

Current liabilities are those claims of outsiders, which are expecting to be matured with in an accounting year. It includes; creditors, bills payable and outstanding expenses.

There are two concepts of working capital: Gross Concept and Net Concept. According to gross concept, working capital refers to the capital invested in current assets of a firm. It focuses only the optimum investment in the current assets and financing of current assets. (Khan and Jain: 1996:604).It includes cash, short-term securities, inventory and account receivable. The level of current assets should be adequate. The level of current assets must be fluctuating with the changing business activity. Thus his concept can help earning more profit through maximum utilization of current assets. This concept is called quantitative concept.

In the view SC Kuchhal: there are two concepts of thoughts on working capital. One school of thought says that working capital is meant for the current assets only. Another school of thought argued that working capital is the excess of current assets over current liabilities. In other words, it is that portion of current asserts financed with long term funds. It is the liquidity position of the firm and suggests extending which working needs to be financed by

permanent source of funds. It is very successful for comparing the performance of different firms as a measuring of liquidity, but it is quite useful for internal control. This concept helps to compare the liquidity of the same firm under a particular time period.

The first school of thought under the sponsorship of mead, baker, malts and field, relates with gross working capital and the second school of thought under the leadership of Lincoln, Doris, Stevens and Sailors relates with net working capital. The gross working capital refers to the firms' investment in current assets which includes to the management of cash, inventories and account receivable of the firm while, net working capital refers to difference between current assets and current liabilities.

There are specially two concepts of working capital: Gross concept and net concept. The gross working capital simply called as working capital refers to the firm's investment on current assets. Current assets are those assets which can be converted in to cash with in an accounting year and includes cash, short term securities, debtors, bill receivable, stock, inventories and pre-paid expenses. The term net working capital refers to the differences between current assets and current liabilities. Current liabilities are those claims of outsiders which can expected to mature for payment with in an accounting year and includes creditors, bills payable, Bank overdraft and outstanding expenses or accrued income. Net working capital can be negative or positive. A negative net working capital occurs when current liabilities are in excess of current assets (Pandey, 1992: 800).

The management of working capital plays a vital role run any public enterprises successfully. It focuses on the routine administration of current assets and current liabilities. Therefore working capital management in public enterprises is very important mainly for four reasons.

- Firstly, public enterprises must need to determine the adequacy of investment in current assets otherwise it could seriously erode their liquidity base.
- Secondly, they must select the type of current assets, suitable for investment so as to raise their operational efficiency.
- Thirdly they are required to ascertain the turnover of current assets, which determine profitability of the concerns.

- Lastly, they must find out the appropriate source of funds to finance current assets (Agrawal, 1996:8).

Weston and Brigham have given some theoretical insights into working capital management after their various research studies on it. The best conceptual findings of their study provide sound knowledge and guidance for the further study on the field of management of working capital in any firm. At the beginning, they explain the importance of working capital, the use of short term versus long-term debt, relationship between current assets to fixed assets. The components of working capital they have dealt with current assets which are cash, marketable securities, receivable and inventory. For the efficient management of cash, they have explained the different cash management model. They have also explained the major sources and form of short-term financing. Such as trade credit, loan from commercial banks and commercial paper.

Proper management of working capital must ensure, adequate amount of working capital as per need of a business firm. It should be in good health and efficient circulated. To have adequate 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.

From the management point of view, gross working capital deals with the problem of managing individual current assets in the day-to-day operation. But having along run view of working capital, we have to concentrate on the net value of current assets, i.e. the operation of current assets, which is constant in short run analysis and decision making but variable and manageable in long run operation. The net concepts of working capital helps the management to look for permanent source for it's financing since working capital under this approach does not increase with increase in short term borrowing.

According to KV Smith, "Working capital management is usually described as involving the administration of these assets namely cash, marketable securities, receivable and inventories and of current liabilities". It means the working capital management is concerned with the

problems that arise in attempting to manage the assets, current liabilities and the inter-relationship that exist between them".

Working capital management is the process of planning and controlling the level and mix of the current assets of the firm as well as financing these assets. Specially, working capital management requires financial manager to decide what quantities of cash, other liquid assets account receivables and inventory of the firm should hold at any point of time. In addition, financial managers must decide how the current assets are to be financed according to need of the firm.

2.3 Classification of Working Capital

Working capital can be classified into two parts: Permanent (Fixed) working capital and temporary (Fluctuating) working capital. These two types of working capital are necessary for continuous production and sales.

(i) Permanent (Fixed) Working Capital

Permanent working capital refers to that level of current assets, which is required on a continuous basis over the entire year. A manufacturing concern cannot operate regular production and sales functions in the absence of this portion of working capital. Therefore, a manufacturing concern holds certain minimum amount of working capital to ensure uninterrupted reduction and sales function. This portion of working capital is directly related to the firm's expansion of operation capacity. This minimum working capital of a firm has to provide out of long – term sources are such as,

- Issue of share
- Issue of debenture
- Retention in various forms (i.e., plugging back of profits, general reserves etc.)

(ii) Variable (Fluctuating) Working Capital

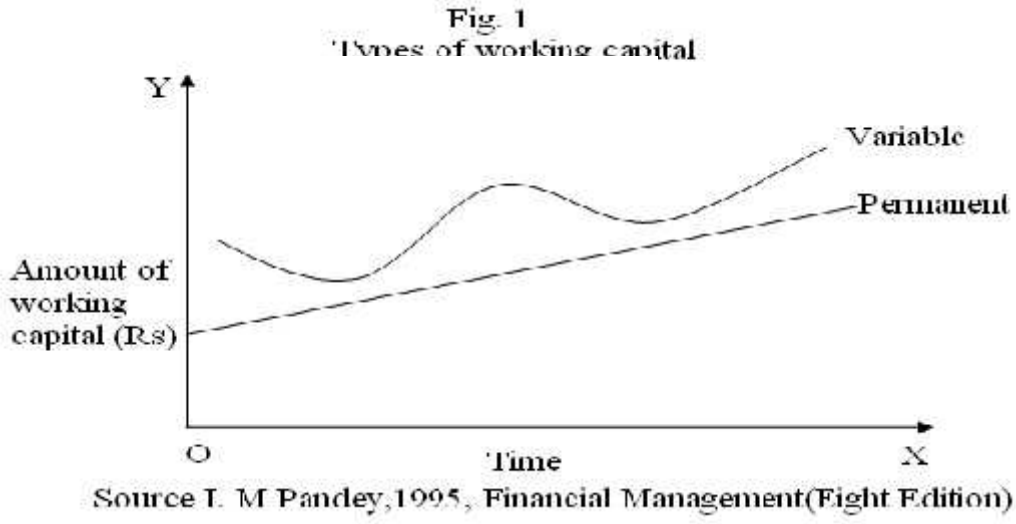
Variable working capital represents the portion of working capital, which is required over permanent working capital. Therefore, this portion of working capital depends upon the nature of firm's production, relation between labor and management. The firm's, which are seasonal in character in their business, need a large amount of capital for holding inventory during the peak period. But, as soon as the peak period is over, their working capital becomes idle. Therefore, firm's having seasonality in their business find it convenient to meet their working capital requirements by resorting to short – term sources, such as:

- Bank loan
- Public deposits
- Trade credit and other payables
- Provision for taxation
- Depreciation provision etc.

Fig No. 1 shows clearly about this portion of working capital. If a firm has sound management of this portion of working capital, it can easily win the other competitors in the cutthroat of the market.

Figure 2.1

Type of Working Capital



Source: I.M Pandey, 1995: Eight Editions

2.4 Need and Importance of Working Capital

Most of firms aim at maximizing the 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 needs to hold the working capital components cash receivable, inventory etc. therefore every firm needs working capital to meet the following motives:

(i) The Transaction Motive

According to transaction motive a firm holds cash and inventories to facilitate smooth production and sales operation in regular. Thus, the firms need the working capital to meet the transaction motive.

(ii) The Precautionary Motive

Precautionary motive is the need to hold cash and inventories to guard against the risk of unpredictable change in demand and supply forces and other factors such as strike, failure of important customer, unexpected show down in collection of account receivable, cancellation of some order for goods and some other unexpected emergency. Thus, the firm needs the working capital to meet any contingencies in future.

(iii) The Speculative Motive

Speculative motive refers to the desire of firm to take advantage of following opportunities:

- Opportunities of profit making investment.
- An opportunity of purchase raw materials at a reduced price on payment of immediate cash.
- To speculate on interest rate.
- To make purchase at favorable price etc.

Thus the firms need the working capital to meet the speculative motive.

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 enterprise. However, a sale does not covert into cash instantly; there is invariably a time log between the sales of good and receipt of cash. There is therefore, a need for working capital in the form of current assets to deal with the problem arising out of the lack of immediate realization of cash against goods sold. Therefore, sufficient working capital is necessary to sustain sales activity. Technically, this is referred to as the operating or cash cycle. The operating cycle is the time duration required to convert sales, after the conversion of resources into inventories, into cash.

Some of the more significant reasons why working capital management is important are as follows:

1. The relationship between sales growth and working capital is both close and direct. As sales increase, firm must increase inventory and accounts payable. Increase sales generate a higher level of account receivable. So working capital must be managed as firms increase or decrease their scale of operation and sales. At the same time, some of the current liabilities especially account payable; tend to increase and decrease spontaneously. This spontaneously short term financing (due to use of trade credit) must be kept in mind as we consider both the CA and then financing (by both current and long term sources).
2. The size and volatility of working capital make it major managerial concern managers spend much of their time on the day to day activities that revolve around working capital management.
3. WC has direct relationship with the inflows and outflows of cash. WCM ensures the right timing and right amount of cash inflows and outflows. This makes the firm able to meet the obligation in right time and there will not be idle cash in hand. This is done by calculating inventory conversion period, receivables collection period and payable deferred period.

4. Size of CAs and CLs, in most of the manufacturing firms CA comprise of about 50% of the total assets. Similarly, CL supply 30% of total finance of the firm in general. WCM is very important because it helps to manage each of the CAs and CLs properly.

2.5 Working Capital Policy

Working capital policy refers to the firm's basic policies regarding (i) target levels for each category of current assets and (ii) how current assets will be finished. So, of all, in working capital management, 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 finance mangers 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.

2.5.1 Current Assets Investments Policy

Current assets investment policy refers to the policy regarding the total amount of current assets to be carried to support the given level of sales. There are three alternative current assets investment policies – Fat cat, Lean and Mean & Moderate.

(i) 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, and 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 with lower risk.

(ii) Lean and Mean Policy

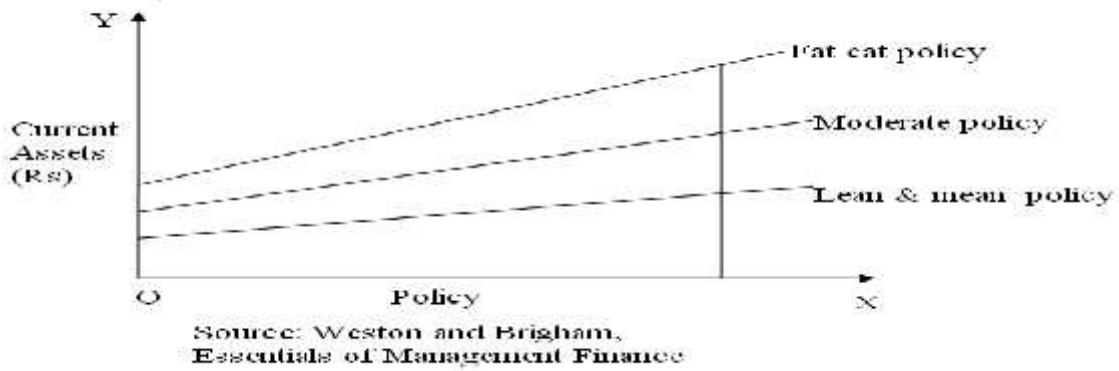
In lean and mean policy, a firm holds the minimum amount of cash, marketable securities,

inventory and receivable to support a given level of sales. This policy trends to reduce the inventory and receivable conversion cycle. Under this policy, firm follows a light credit policy and bears the risk of losing sales.

(iii) 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 Policy



Source: Brigham and Houston, 2001: 697

2.5.2 Current Assets Financing Policy

It is the manner in which the permanent and temporary current assets are finance. 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 types of policies.

(i) Aggressive Policy

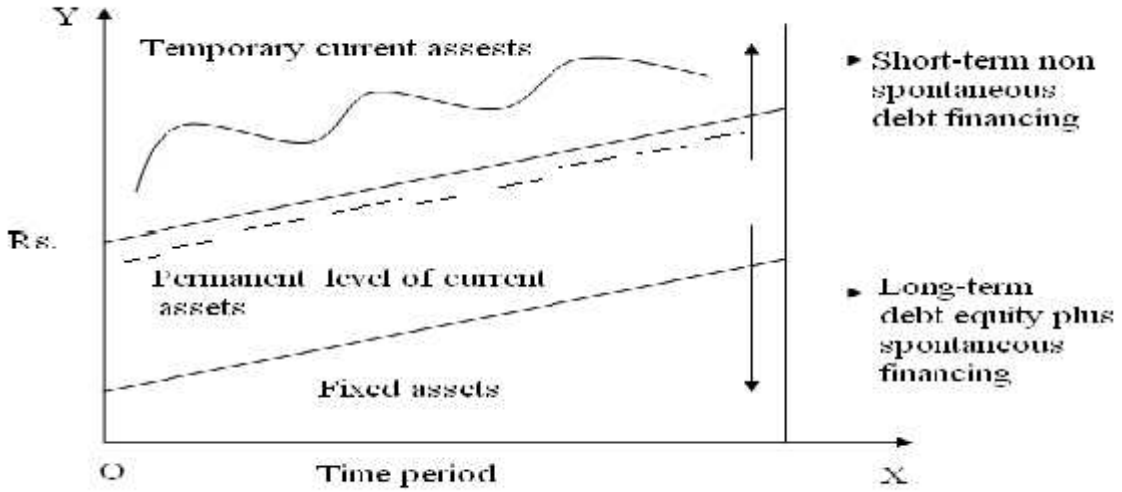
In an aggressive policy, the firm finances a part of its permanent current assets with short-term financing and rest with financing. In other words, the firm finances not only temporary

current assets but also a part of the permanent current assets with short-term financing. Fig No. 3 shows that short-term financing finances 50 percent of the permanent current assets. In general, interest rate increases with time i.e. shorter the times lower the interest rate. It is because lenders are risk adverse and risk generally increases with the length of leading period.

Thus, under normal the firm borrows on a short term 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 interest expenses will fluctuate widely. And also it may be difficult for the firm to raise the funds during the stringent credit periods. In conclusion, there is higher risk, higher return and low liquidity position under this policy.

Figure 2.3

Aggressive Financing Policy



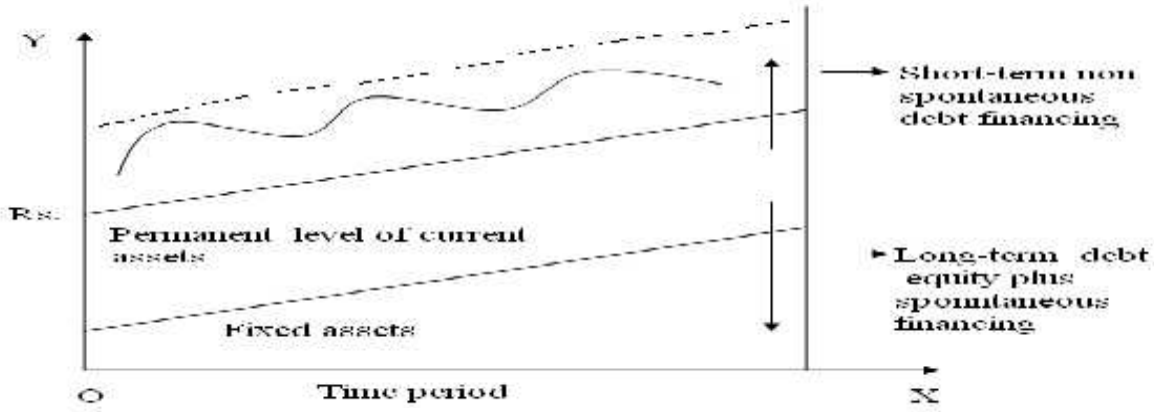
Source: Weston and Brigham, 2001: 748

(ii) Conservative Policy

In conservative policy, the firm uses to finance not only fixed and permanent current assets,

but also 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 risk adverse management follows this policy.

Figure 2.4
Conservative Financing Policy

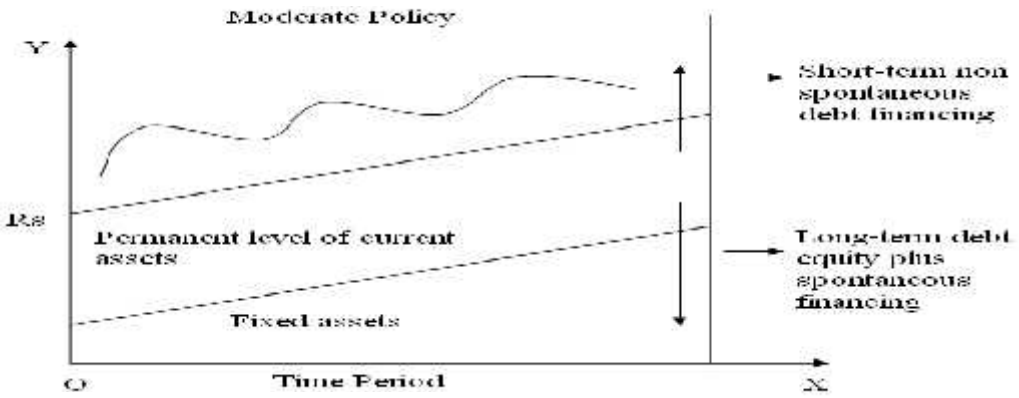


Source: Brigham and Houston, 2001:748

(iii) 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 No. 5 shows temporary working capital is financed by short term financing and long term by long term financing. Thus, no working capital is financed by long term funds. Hence, net working capital is zero under this policy.

Figure 2.5
Moderate Policy



Source: Brigham and Houston, 2001:748

2.6 Financing of Working Capital

Every manufacturing concern or industry requires 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 is to be financed. Financing of any assets is concerned with two major factors: cost and risk. Therefore, the financial manager 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.

(i) Long – term financing
(ii) Short – term financing
(iii) Spontaneous financing

(i) Long – Term Financing

Long – term financing has high liquidity and low profitability. Ordinary share, debenture, preference share, retained earnings and long – term debt from financial institution are the major source of long – term financing.

(ii) Short – Term Financing

Firm must arrange short –term credit in advance. The sources of short term financing of working capital are trade credit and bank borrowing.

- 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 immediately for the purchase is called trade credit. It is mostly and informal arrangement and is granted on an open account basis. Another form of trade credit is a bill payable. It depends upon the term of trade credit.
- Bank credit: Bank credit is the primary institutional sources for working capital financing. For the purpose of bank credit, amount of working capital requirement has to be estimate by borrows and banks are approached with the necessary supporting data. After available of this data, bank determines the maximum credit based on the margin requirement of the security. The types of loan provide by commercial banks are loan arrangement. Overdraft arrangement, commercial papers etc.

(iii) Spontaneous Financing

Spontaneous financing arises firm the normal operation of the firms. The two major sources of such financing are trade credit (i.e. creditor and bill payable) and accruals. Whether trade credit is free cost or not, actually depends upon the terms of trade credit.

Financial manager of the firm would like to finance its working capital with spontaneous source as much as possible. In practical aspect, the real choice of current assets financing is either short – term or long – term sources. Thus, the financial manager concentrates his power in short – term versus financing. Hence, the financing of working capital depends upon the working capital policy, which is perfectly dominated by management attitude towards the risk and return.

2.7 Cash Conversion Cycle

Cash conversion cycle, which nets out the three periods: inventory conversion period, receivable period, payable deferral period equals the length of time between inventory convert into cash, the firm's actual and expenditures to pay for productive resources (materials and labor) and the cash receipts from the sale of products (that is, the length of time between paying for labor and materials and collecting on receivables). Cash conversion cycle is the length of time between the firm's payment for its purchases and labor and its own collection of payment from the customers. A cash conversion cycle refers to the period between the payments to its creditors and receipts from its suppliers (Poudel and Dahal, 2062:329). The cash conversion cycle thus equals the average length of time a rupee is tied up in current assets.

Cash conversion cycle is calculated by deducting the average payable deferral period and average receivable period. So, it can be calculated through the following equation.

Cash Conversion Cycle (CCC) = Inventory Conversion Period (ICP) + Receivable Conversion Period (RCP) - Payables Deferral Period (PDF)

- **Inventory Conversion Period (ICP)**

Inventory conversion period refers to the average length of time required to convert raw materials into finished goods and then to sell those finished goods. The inventory may remain in the form of raw materials or semi-finished goods or finished goods during the inventory conversion period. The inventory conversion period can be calculated with the help of following equation:

$$\text{Inventory Conversion Period} = \frac{\text{Days in Year}}{\text{Cost of Goods Sold / Average Inventory}}$$

- **Receivable Conversion Period (RCP)**

Receivable conversion period refers to the average length of time required to convert the firm's receivables into cash. It is known as average collection period.

Receivable conversion period can be calculated from the following equation:

$$\text{Receivable Conversion Period} = \frac{\text{Days in Year}}{\text{Net Credit Sales/Average Receivable}}$$

- **Payable Deferral Period (PDF)**

It is defined as the average length of time between the purchase of raw material and labor and the payment of cash for them. It shows the average length of time required to make the cash payment of credit payment of credit purchase and outstanding wages. Generally, it is 30 days long. It can be calculated using the following equation.

$$\text{Payable Deferral Period} = \frac{\text{Payable} \times 360}{\text{Purchase}}$$

2.8 Determinants of Working Capital

The efficient working capital management is an important 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. But there are no sets of rules or formula to determine the working capital requirements of the firm. It's because of a large number of factors that influence the working capital requirement of the firm. A number of factors affects different firm in different ways. Internal policies and environmental changes also affect the working capital. Generally, the following factors affect the working capital requirements of the firms:

- **Nature and Size of Business**

The working capital requirements of firm are basically related to size and nature of the 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.

- **Manufacturing Cycle**

Working capital requirements of enterprises is also influenced by the manufacturing or production cycle. It refers to the time involved to make the finished goods from the raw materials. During the process of manufacturing cycle funds are tied – up. The longer manufacturing cycle, working capital requirement larger and vice – versa.

- **Production Policy**

Working capital requirement is also determined by its production policy. If a firm produces seasonal goods, then it production and sales volume fluctuates with different seasons. This type of fluctuation production policy affects the working capital policy of the firm.

- **Credit Policy**

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

- **Availability of Credit**

Availability of credit facility is another factor that affects the working capital requirements. If the creditors benefit open-minded credit terms, then the firm will need less working capital. 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.

Growth and Expansion

Growth and expansion also affect the working capital requirement of a firm. However, it is difficult to exactly 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 these static ones.

- **Price Level Change**

Price level change also affects the working capital requirement of a firm generally, a firm requires maintaining the higher amount of working capital it the price level raises. Because the same level of current assets needs more funds due to the increasing price. In conclusion, the implications of changing price level on working capital position will differ from firm to firm depending on the nature and other relevant consideration of the operation of the concerned firm.

- **Operating Efficient**

Operating efficient is also important factor, which influences the working capital requirement of the firm. It refers to the efficient utilization of available resources at minimum cost. Thus, financial manager can contribute to strong working capital position through operating efficiency. If a firm has strong operating efficient then it needs lesser amount of working capital and vice – versa.

- **Profit Margin**

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

- **Level of Taxes**

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

Besides these factors the Working Capital also determines by the following factors:

- Technological Developments
- Transportation and communication facilities
- Companies' dividend policy etc.

2.9 Review of Related Studies

2.9.1 Review of Journals

It is not possible to estimate working capital needs accurately the firm must decide about level of current assets to be carried. The current assets holding of the firm will depend upon working capital policy. It may follow a conservative or aggressive policy. This policy has different risk return implication (Van Horne, 1970:71-88). The financial manager should determine the optimum level of current assets, so that the wealth of shareholders will be maximized. In fact optimum level of each type of current assets should be fixed (Walker, 1964:21-35). To find out corporate bankruptcy, Zeta model was developed by Altman and others (Edward, Altman, Haldmand and Narayan, 1997: 29-54).

The authors extended the 2 score model to include among other things. The capitalization of leases, and they updated its application. A sample of 53 bankrupt firms and 58 non bankrupt firms were employed. Manufacturing and for the first time in any study retailing companies were included on the thesis of discriminatory ability, 27 original variables were reduced to 7, the retained earnings to total assets ratio, the current ratio, the company equity to total capital ratios and size of total assets using the linear discriminate model, the authors were successful classification ranges from 96 percent 1 year before failure to of percentage 5 year before to

failure, a better performance then the 2 score mode, both quadratic and linear models were tested, wit linear function winning out.

2.9.2 Review of Articles

In this section the review of journal/ articles, various published articles by different management expert relating to Working Capital Management were made.

In this regards, Monohar K. Shrestha, in an articles has considered ten selected PEs and studied the working capital management in those PEs. He has focused on the liquidity, turnover and profitability position of those enterprises. In this analysis he found that four PES had maintained adequate liquidity position. Two had excessive and the remaining four had failed to maintain desirable liquidity position. On the turnover side, two PES had negative working capital, four adequate turnovers, one had high turnover and remaining three had not satisfactory turnover on net working capital. He had also found that out of ten PEs six Public Enterprises were operating at losses while only four were getting some percentage of profits. With reference to those finding he had bought certain policy issues such a lack of suitable financial planning, negligence of working capital management, deviation between liquidity and turnover and return on net working capital. To the end he had made some suggestive measures to overcome from the above policy issues, identification of needs funds, regular checks of accounts, development of management information system, positive attitude towards risk and profit and determination of right combination of short-term and long term sources of funds to finance working capital needs (Shrestha, 1982: 83).

During the analysis he observed some problem like the lack of far sighted liquidity adjustment strategy in most of the PEs no guiding criteria to ascertain the satisfactory malignances of acid-test ratio and working capital needs large blocking of capital in inventories and low capacity utilization. All these were due to efficient management of working capital in that PEs.

The next article relating to working capital management published by K. Acharya, he has described the two major problems operational problems and organizational problems

regarding the working capital management in Nepalese PEs. The operational problem he listed in the first part is: increase of current liabilities than current assets, not allowing the current ratio relation 2:1 and slow turnover of inventory. Similarly, change in working capital in relation to fixed capital had very low impacts over the profitability, thin transmutation of capital employed to sales, absent to apathetic management information system, break even analysis, funds flow analysis and ratio analysis were either undone or ineffective for performance evaluation. Finally monitoring of the proper functioning of working capital management had never been considered as managerial job.

In the second part he has listed the organizational problems in the PEs. In most of the PEs there is lack of regular internal and external audit system as well as evaluation of financial results. Similarly very few PEs have been able to present their capital requirement, functioning of finance department is not satisfactory and some PEs are even facing the under utilization of capacity.

To make an efficient use of funds for minimizing the risk of the loss to attain profit objectives, he has made some suggestion. The PEs should avoid the system of crisis decision which prevailed frequently in their operation, avoid fictitious holding of assets, the finance staff should be acquainted with the modern scientific tools for the presentation analysis of data and lastly. He has suggested optimizing its level of investment at a point of time. The management of an enterprise desires neither over nor under investment in working capital because both of these situation will erode the efficiency of the concern.

An article relating to working capital is by R.S. Pradhan. He studied on “The Demand for Working Capital by Nepalese Corporations.” For the analysis nine manufacturing public corporations were selected with the 12 years data from 1973-1984. For the analysis the regression equation has been adopted. From the study he concluded that: The earlier studies concerning the demand for cash and inventories by business firms did not report unanimous findings. A lot of controversies exits with respect to the presence of economics of scale, rate of capital cost, and capacity utilization rates, and the speed with which actual cash and inventories are adjusted rates to describe cash and inventories respectively. The pooled

regression result shows the presence of economics of scale with respect to the demand for working capital and its various components. The regression results, suggests strongly that the demand for working capital and its components is a function of both sales and their capital costs. The estimated results shows that the inclusion of capacity utilization variable in the modern seems to have contributed to the demand functions of cash and net working capital only. The effects of capacity utilization on the demand for inventories, receivables and gross working capital are doubtful.

The specific objectives undertaken in his study area are:

1) To conduct risk analysis of liquidity of working capital position.
2) To access the short term financial liquidity position of the enterprises.
3) To access the structure and utilization of WC.
4) To estimate the transaction demand function of WC and its various components (Pradhan, 1986: 10).

His study has mentioned the following findings:

1. It has showed a poor liquidity portion of most of the enterprises. This poor liquidity position has been noticed as the enterprises here either negative cash follows or negative earnings before tax or they have excessive current debts which cannot be paid within a year.
2. It has found that most of the selected enterprises have been activating a tradeoff between risk and return.
3. The Nepalese manufacturing PEs have an average half of their total assets in the form of current asset of all the different components of CAs, the share of inventories in total assets, and an average is largest followed by receivable, and cash in most of the selected enterprise.
4. The economic scale has been highest for inventories followed by cash and gross WC receivable and net WC.
5. This regression results also shows that the level of WC and its components and enterprises desire to hold depends not only a sales but on holding costs also.

His study is concerned with inter relationship that exists between managing CAs and CLs.

This study manages to focus on net working capital concept. The study has employed ratio analysis, discriminates analysis and economic model for the analysis. This study does not cover all the PEs in manufacturing sectors. Each selected enterprises does not represent the entire industry which it falls. The manufacturing PEs selected for the study differs in its working and nature. This study period covers ten years period for 1973 to 1982. He has mentioned only finding and conclusion in his study but not recommended suggestions to solve the finding problems.

A study was conducted by the management consultant and company on the performance of PEs of Nepal in the study: it was conducted that the assets management in general and current asset management in particular was the weakest point in Nepal.

Prof. Radhe Shyam Pradhan and Kundan Datta Koirala jointly have conducted a study on working capital management in Nepalese Corporation (Pradhan and Koirala, 1982). They have focused on evaluation of the working capital position of selected manufacturing and non manufacturing Corporation of Nepal. They have sampled five manufacturing and six non-manufacturing public enterprises. This study is concentrated in the size of investment, trend of investment and need to control the investment in current assets, significance of current assets management. Major findings of this study are as follows:

1. Investment in total assets had declined over the period of time in both manufacturing and Non-manufacturing Corporation.
2. Management of working capital was more different than that of fixed capital. They found the high level of inventory in manufacturing ones.
3. Inventory management was a great significance in manufacturing-corporation and management of cash and receivables was a great significance in non-manufacturing corporations.

2.9.3 Review of Thesis

A number of studies have been done by students of MBS, relating to working capital management in Nepal. This section is focused to review some of those dissertations.

Prem Kumar Shrestha (1994) has study on “Working Capital Management of Bhrikuti Paper Mills Limited”. He used ratio analysis as a tools analysis the working capital management of mills. From the analysis he found that the cash and bank balance holds the largest portion followed by inventory and receivables respectively. He also found that the current assets level with total assets is in increasing trend. The credit and collection policy of BPML was not sound during the study period. So, the receivables were increasing year after year. The decreasing and fluctuating trend of various turnovers indicates that current assets are not properly utilized in BPML. He also concluded that though BPML was earning profit, its profitability position was not encouraging one because of its return on total assets was not high enough.

The various turnover ratio of his analysis indicates the increasing and fluctuating trend. Gross working capital, Net working capital turnover is in decreasing trend in the study period. He has mentioned the receivable turnover. Besides this condition, there is no consistency in inventory turnover but it does not fluctuate largely. Liquidity position of the company shows increasing trend. Net working capital of the company is found positive and increasing year after year. The current ratio is also increasing during study period. He has analyzed the profitability position from various angles. Gross profit margin and Net profit margin are found in increasing trend in the first three year of the study period and then decreasing in subsequent year and increasing in next year. He has also defined that company has earning profit but it is not enough to return on total assets.

Naresh Kunwar (2000) has carried out a research on "A Study on Working Capital Management of Pharmaceutical Industry of Nepal with special reference to Royal Drugs Limited". His main objects of the study were to analyze empirical testing affective working capital of RDL as well as to know whether adequacy of working capital depends upon the nature of financing current assets or not. He analyzed six years published data of RDL from 2049/50 to 2054/55 and used statistical and financial tools that help to achieve there objectives.

He has found that long-term sources are used more than short-term sources in its total amount of working capital. It has followed conservative working capital policy. The major components of current assets in RDL are cash and bank balance, receivable, inventory. Among these current assets, inventory holds largest portion of CAs and cash holds smallest portion of CAs. The overall proportion of current assets on total assets and current assets to net fixed assets are found in increasing trend in the study period. The calculation of cash and bank balance with respect to current assets and total assets shows decreasing trend inventory and receivable position of RDL was fluctuating during the study period. This is due to the fluctuation in sales volume of the company. He has found that company cannot efficiently utilize current assets because it can't create sales as investment in CAs. The average collection period of RDL was found 57 days, which indicates inefficient management of receivable collection policy. The average inventory holding period was found 8 month, which increased liquidity capacity. He has analyzed liquidity position and found satisfactory that means the company has enough current assets to meet obligation of current liabilities.

He has measured the profitability position by analyzing various angles and found loss during his first four-year study period and showed operational inefficiency of the company. Further, he has found negative ratio of the return on total assets and return on net worth. He has mentioned that the overall return position is negative and is not in favorable condition because of inefficient utilization of current assets, total assets and shareholder's wealth.

Om Bikram Gurung (2002) has done the research on the title "A study on Working Capital Management of Nepal Lever Limited ". His main objectives of this study are to analyze liquidity composition of working capital, assets utilization and profitability position of Nepal lever limited as well as to examine the relationship between liquidity and profitability of Nepal lever limited. He analyzed five year published data of Nepal lever limited from the fiscal year 2053.54 to 2057/58 and used statistical and financial tools to analyze the secondary data to achieve set objectives.

He has found that major components of current assets are inventories, receivables, prepaid expenses and advanced. Among these inventory holds major portion of current assets. He has

mentioned that all the components of current assets are fluctuating during observed period. It indicates that the company has not had clear vision about the investment policy. Similarly, the current ratio contains high amount of inventory and receivable but they don't show any significant relationship between current assets and current liabilities. The liquidity position of the NL Ltd. has been analyzed by calculating current ratio and quick ratio. It is below the standard value. So, it indicates that the company has preferred short term financing rather than long-term financing. It applies moderate policy. Inventory turnover and receivable turnover isn't found at satisfactory level. It was fluctuating during the study period. It can be concluded that the company has high risk. Even though the profitability position of the company is in increasing trend.

Ram Babu Ghimire (2002) has carried out "A study on Working Capital Management of selected Manufacturing Companies Listed in Nepal Stock Exchange Limited". He has used data from 1997-2001. he has selected Nepal Lever Limited (NL), Bottler Nepal, (Balaju)(BNK), Bottler Nepal (Terai)(BNT), Arun Vanaspati Udghyog (AVU), Jyoti Spinning Mills (JSM), Raghupati Jute Mills(RJM), Nepal Lube oil(NL). He ahs used ratio analysis, working capital approached, cash conversion cycle, du-pont analysis, correlation coefficient, and simple regression analysis as per tools.

The findings of this study were as follows:

1. Risk and return trade off is not matched in Nepalese manufacturing company.
2. NLO, BNK, BNT, RJM and NL have followed the Moderate approach where as other two companies such as JSM and AVU have followed the aggressive working capital policy.

3. Most of the selected manufacturing companies have followed moderate working capital policy es.
4. Out of seven companies only two companies have higher conversion period than average. NLO has highest & JSM has lowest conversion period.
5. He has found that Nepalese manufacturing company has inefficiency, Missing working capital policy, less encouraging attitude towards the working capital, high levels cost,

excessive borrowing weak liquidity position, managerial ineffectiveness, high conversion cycle.

6. He has also found that Nepalese manufacturing company in present context are facing certain policy issues, like deficient financial planning, neglect of working capital management, deviation between liquidity and turnover etc.

Dikpal Subedi (2003) has done a research on "A Working Capital Management Manufacturing Companies Listed in NEPSE". His objectives of the study are to examine working capital management of the Nepalese manufacturing companies, to study te impact of working capital of profitability, to analyze the current assets and current liabilities policy of manufacturing companies and to examine the relationship between liquidity and profitability of manufacturing companies. He analyzes five years data from 1997 to 2001. He used statistical and financial tools to achieve these objectives.

His analysis shows that the management has not seriously examined the working capital policy so that most of the manufacturing companies are following aggressive policy but opposite impact in revenue. The theory of high risk and high return is not applied here. By taking high risk company has negative return. Similarly, liquidity, profitability and turnover position are found unfavorable. The study shows that Arun Vanaspati Udhyog limited and Nepal lube Oil limited are following aggressive policy where as Bottlers Nepal Limited, Jyoti Spinning Mills Limited and Nepal Lever Limited are following conservative policy.

The overall cash conversion cycle is 114.40 days. Three companies such as Arun Vanaspati Udhyog Limited, Bottlers Nepal Limited and Nepal Lever Limited have very less conversion period then overall average cash conversion period. Whereas Nepal Lube Oil Limited has much higher than overall average. Higher and lower cash conversion period is not good for the companies. Such volatile cash conversion period shows that there is no consistent working capital policy in Nepalese manufacturing company.

The liquidity position of Nepalese manufacturing companies is not similar among different companies. The liquidity position of Nepal Lube Oil Limited is good. The current ratio of

Bottlers Nepal lever, Arun Vanaspati Udhyog and Jyoti Spinning Mills Ltd. has lower than standard ratios.

Rojina Shrestha (2003) has carried out her research on "A study on Working Capital Management with respect to National Trading Limited and Salt Trading Limited". Her main objectives of the study are to present overall picture of working capital of National Trading Limited and Salt Trading Limited, to examine the relationship between liquidity and profitability and to know whether the companies have maintained optimum level of working capital or not. She has analyzed 11 years data from the fiscal year 2047 to 2057 and used financial tools and statistical tools to achieve these objectives.

Her analysis shows that the various profitability ratios, it can be conclude that there is operating inefficiency in both sample companies and overall return position of the company is also not in favorable condition because of inefficient utilization of current assets, total assets and shareholders wealth. The outcome of cash conversion cycle of these companies are not in satisfied condition for long run because analysis shows that there is long payable deferral period, short inventory collection period and short receivable conversion period in both companies which is favorable only for short run and it will cause negative impact from its trade creditors in upcoming days of the companies. This study shows that the receivable portion of National Trading Limited are found in decreasing trend except the fiscal year 2050 and the receivable portion of Salt Trading Corporation Limited is fluctuating year after year. These both trading companies follow aggressive financing policy which comprises higher risk and higher return and low liquidity position are not in condition of following the policy (Shrestha, 2003).

Mukti Nath Lohani (2004) has done a research on "A study on Working Capital Management of Nepal Lube Oil Limited". His main objectives of study are to analyze the structure of the different components of working capital of Nepal Lube Oil Ltd, to analyze composition of working capital liquidity ratio, profitability ratio and turnover ratio of the company and to evaluate the financial performance and to examine the relationship between the various components of working capital and overall profitability and their impact.

He analyzes five years published data of Nepal Lube Oil Ltd. from 2055/056 to 2059/060 and used statistical and financial tools to achieve these all objectives.

After analyzing the data, Mr. Lohani found that current assets to fixed assets were increasing. Current assets to fixed assets ratios are in increasing trend. It means that Nepal Lube Oil Ltd has applied aggressive current assets policy. Furthermore; he has calculated liquidity position, turnover position, conversion cycle and profitability position for financial performance analysis. Annual current ratios are higher than standard, which might cause to decrease profitability. Quick ratios are also higher than standard which might cause to decrease profitability. The receivable turnover ratios showed that the company had better management in 2059/060 because there is higher the sales and lesser the debtors. The annual cash conversion cycle are said to be more fluctuating. The company had poor cash management in 2057/058 having highest conversion cycle. There is low degree of positive correlation between sales and current assets. That can be concluded that increase in sales may increase in current assets and vice-versa.

Sheela Yadav (2006) has conducted the research on "A study on Working Capital Management of listed Hotels in Nepal Stock Exchange". She has used financial as well as statistical tools to analyze the financial data of 2000 to 2005.She has also used primary and secondary sources of data. The main objective of this study is to appraise the working capital management of listed hotels and to find out the relationship between the different variables of working capital .The major findings of her study are:

- Yak & Yeti, Oriental and Soaltee Crown Plaza are suffering from excess of current assets over the current liabilities.
- Oriental has good inventory management in comparison to both hotels.
- Yak & Yeti has followed conservative financing policy where as Soaltee and Oriental has followed aggressive financing policy.
- The liquidity and profitability position of all selected hotels is satisfactory.
- Oriental has able to collect debt on time rest two has difficulty to collect their debt on time.
- Receivable and inventory conversion period are relatively short than the payable deferral period it indicates they have got long credit period from its creditors.

- The relationship between current assets and current liability, current assets and net working capital, net profit and net working capital are found negative and receivables and net sales are positive of all selected hotels.
- From the primary information, it has also found that Oriental and Yak &Yeti are not implying any credit standard policy and credit payable policy.
- In the view of Oriental and Yak & Yeti good financing planning is important to make better working capital management system.

She has taken only three hotels out of four hotels listed in Nepal Stock Exchange. Although she has used questionnaire method to collect the primary information about related field, which one is not able to collect more information from listed hotels because it is only distributed in only two hotels, Yak &Yeti and Oriental. If she has directly collect primary information from the related respondent not from the Human Resources Department then her study would be far better than others.

Bhupendra Pandey (2007) has done the research on the title "A study on Working Capital Management in Hotel Industry with reference to Hotel Radisson, Hotel Soaltee and Hotel Hyatt". His main objectives of this study are to analyze composition of working capital, liquidity and profitability position of Hotel Radisson, Hotel Soaltee and Hotel Hyatt as well as to examine the relationship between sales and different variables of working capital position. He analyzed five year published data of selected hotels from the fiscal year 2057/58 to 2061/62 and used statistical and financial tools to analyze the secondary data to achieve set objectives.

He has found that major components of Current Assets are Inventories, Debtors, Cash & Bank Balance (CB Balance) and Loans, Advances and Deposit (LAD). Among these, Hotel Soaltee has held high portion of working capital in its daily operation of business. He has mentioned that investing in FA doesn't seem good practice due to requirement of high fund. Hotel Soaltee has maintained high portion of current assets in terms of sales the other two hotels have low ratio. Debtor turnover ratio and Cash & Bank turnover ratio of Hotel Soaltee is quite higher than the rest of the two hotels. Similarly, Hotel Radisson has followed highly

aggressive financing policy and used short term fund in permanent working capital as well as fixed assets. At last, Hotel Hyatt has given high priority in liquid assets rather than no liquid assets due to the hotel held high amount of debtors in composition of current assets. The turnover ratio and loan, advances and deposit turnover ratio of Hotel Hyatt is greater in comparison to Hotel Radisson and Hotel Soaltee. The cash conversion cycle of Hotel Soaltee seemed favorable as compared to other hotels due to its conversion period within the time period of 365days.

He found that the poor liquidity position of all three hotels because they can't meet the current obligation in very short period. The gross profit margin of the Hotel Soaltee was in decreasing trend where as the Hotel Hyatt was in increasing trend. The average return on total assets and return on capital employed of Hotel Radisson was higher in comparison to other two hotels.

Since the all hotels have negative working capital, it indicates that all the hotels have higher portion of current liabilities as compare to current assets which means all the hotels kept high amount of loan in capital structure. None of the hotels have solid view on the management of working capital due to highly depend upon short term loan. Current assets ratio as well as quick assets ratio of the selected hotel was below the standard level, which show the inability position to meet the current obligation. The turnover of Hotel Soaltee was higher in comparison to other two hotels. The performance of the hotels are highly depends upon the location and political condition of the country. Among various industries, hotels sectors are mainly victimized by the Moist Insurgency and bad political situation of the country.

Sarita Marahatta (2008) has conducted the research on "A study on Working Capital Management of Agriculture Development Bank Limited". She has used financial as well as statistical tools to analyze the financial data of2060/061 to2064/065. She has also used primary and secondary sources of data. The main objective of this study is to appraise the working capital management of agriculture development bank limited and to find out the relationship between the different variables of working capital. The major findings of this study of ADBL during the five years study period are summarized below:

- The major components of current assets of this bank are cash and bank balance, loan and advances and government securities. In the study period, the proportion of cash and bank balance, loan and advances and government securities to total current assets on average are 7.88%, 65.85% and 8.04% respectively. The trend value of cash and bank balance is 0.3245. Similarly, the trend value of loan and advances is 26.21. But, the trend value of government securities is higher than cash and bank balance and loan and advances, which are 32.89.
- The average net working capital of this bank is 0.2865. All of the net working capital is positive in the study period. Positive net working capital indicates the sufficient amount of net working capital and negative net working capital indicates the insufficient amount of net working capital. The net working capital ranges from 9126.19 million to 30094.69 million. The CV of ADBL is 0.085.
- The liquidity position of the bank is analyzed with the current ratio, quick ratio and cash balance to deposit ratio. The current ratio of ADBL is ranges from 1.52 to 8.19. Likewise, the average current ratio is 3.99.This shows the liquidity position or short term solvency during the study period. Although higher liquidity means lower risk as well as lower profit in general, it does not necessarily mean lower profit in case of every bank.
- Fixed deposit to total deposit ratios are increasing in the study period. The average ratio of fixed deposit to total deposit ratios is 0.374.The ratio ranges from 0.366 to 0.386. Therefore, it concluded that more long term and costly sources of funds and risk depends upon the ratio.
- Saving deposit to total deposit ratios fluctuating during the study period. It is ranges from 0.534 to 0.559. The average ratio is 0.547. High ratio indicates more short –term and less costly sources of funds. Similarly, the low ratio indicates long-term and costly sources of funds.
- The turnover positions have fluctuated .The average value of loan and advance to total deposit ratio, loan and fixed deposit ratio and loan and advances to saving deposit ratio are 1.029, 2.75 and 1.883 respectively. From the analysis, every bank is better investment efficiency on loan and advances in higher turnover ratio.

- The profitability position of ADBL is analyzed from different ways. The average value of interest earned to total assets ratios and net profit to total deposit ratios are 0.124 and -0.051 respectively. When, these ratios are high, then more efficiently using its total assets to earn interest income.
- The trend value of interest earned to total assets ratio are increasing. Although the net profit to total assets ratios and net profit to total deposit ratios are more fluctuating in the study period. It shows that the bank is not able to efficiently using its working funds of assets to earn higher rate of profit during the study period.
- Cost of services to total assets ratio is both increasing and decreasing order. The average ratio of cost of services to total assets is 0.072. Similarly, the range of cost of services to total assets is 0.053 to 0.095 in the analysis period. Therefore, it is found that profitability position of ADBL is better .It would be better to increase the cost of services of ADBL.
- While analyzing the correlation coefficient, loan and advances and total deposits of this bank are insignificantly correlated. The value of r of ADBL is 0.8109 in loan and advances and total deposits. The positive value of r shows the positive relationship between loan and advances and total deposits. It shows that the bank utilizes its total deposit on loan and advances effectively. Correlation between investment on government securities and total deposits of ADBL is significant.
- Coefficient of correlation between cash and bank balance and current liabilities of this bank shows that there is no significant relationship between these two variables. The value of r is -0.7484. It shows that the holding of cash and bank balance is not related with current liabilities. Coefficient of correlation between loan and advances and net profit is 0.7743. It shows that there is no significant relationship between loan and advances and net profit. It shows that the change on loan and advances does not change the amount of profit significantly. It may be due to the higher amount of costly funds and other higher costs.

2.10 Research Gap

The above mentioned studies in the context of Nepalese manufacturing companies were done in the last few years in respect to WCM. Many changes have taken place in and outside Nepal after these studies. Nepal also has followed the policy of liberalization, privatization and globalization. Many more companies have also come up after these studies.

A very few studies have been performed on the financial performance of NT but no one has studied typically on its WCM. Different researcher have written their desertions on its WCM; however almost all of them are related to the manufacturing sector and do not addresses the real situation of service sector public enterprises like Nepal Telecom. It is thus clear that no full-fledged academic research study on WCM in NT has been carried out. The present study, therefore, bridge this ling felt gap in the field of research. This is only a beginning and it could be further developed through continued research in this field.

CHAPTER - III

RESEARCH METHODOLOGY

Research in common parlance refers to a search for knowledge is composed by "re" and "search" where "re" means repeatedly or again and again and "search" means to investigate or find. Research methodology is a way to systematically solve the research problem. Research methodology may be defined as “a systematic process that is adopted by the researcher in studying problem with certain objective and view”. In other word, research methodology describes the methods and process applied in the entire aspect of the study focus of data, data gathering instrument and procedure, data tabulating and processing and methods of analysis. It is really a method of critical thinking by defined and redefining the problems, formulating hypothesis or suggested solution and collecting and organizing and evaluating data, making deduction and making conclusions. Research methodology is a path from which we can solve research dilemma systematically to accomplish the basic objective of the study. It consists of a brief explanation of research design, nature and sources of data, method of data collection and methods of tools used for analyzing data.

3.1 Research Design

Research design is a plan structure and strategy of investigation conceived so as to obtain answer to research questions and to control variances (Kothari, 1984:43). A research design is the management of condition for collection analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Claire Seltiz and others, 1962: 50).

Research design is highlighted for ascertaining the basic objectives of the study. Research design includes definite procedures and techniques which guide in sufficient way for analyzing and evaluating the study. This study is carried out by using both quantitative and qualitative analysis methods. Mostly the secondary data has been used for analysis, but the discussion and personal interview with the concerned employees of Nepal Telecom are also

used for qualitative analysis. Hence, research design or undertaking this study is based on descriptive and analytical method. Attempts have been made to explore working capital management of Nepal Telecom.

3.2 Nature and Sources of Data

Secondary data have been used to fulfill the objectives of this study. Some primary data are also collected through questionnaire in Nepal Telecom. The secondary sources of data include the published documents of NT, annual reports of NT, booklets, similar previous dissertations and other publications. Data requisition slip from NT in appendix and supplementary questionnaire is also given in the appendix.

3.3 Data Processing

The balance sheet, income statement and profit & loss a/c of the company for the five fiscal years period from 2063/64 to 2067/68 are collected for the convenience of the study. Then all the raw data are processed and presented in tabular form with the help of simple arithmetic rules. Entire raw data are converted into approximate and condensed in the form of consolidated balance sheet and income statement. Most of the data have been compiled in one form and processed and interpreted as per the need of the study. The secondary types of data are presented for the analytical purpose after the tabulation of the data. These types of data processing will help to present the clear situation of WC in NT.

3.4 Population and Sample

This research work was related with the analysis of working capital management of public enterprises in Nepal. So, the total present number of public enterprises in Nepal was the population of this study. However, due to various constraints of mine like time, resource, etc., selected only one representative public enterprise for my research work and the representative public enterprise was Nepal Telecom. This study covered five years period in NT from the fiscal year 2063/64 to 2067/68

3.5 Tools for Analysis

The data collected from various sources were managed, analyzed and presented in proper tables and formats and were interpreted and explained wherever necessary. Financial and statistical tools were used to analyze the collected data.

3.6 Financial Tools

Financial tools are defined as the systematic use of ratio to interpret the financial statement so that the strength and weakness of a firm as well as its historical performance and current financial condition can be determined. Management may have different types of weakness that can be found from ratio analysis. So, the organizations use an analytical tool to know about its own situation and take suitable and corrective actions to relieve from arising problems.

"The most useful tools of financial analysis are ratio analysis. In order to bargain more effectively for outside funds, the management of a firm should be interested in all aspects of financial analysis that outside supplier of capital use it in evaluating the firm" (Van Horn, 2000:205). With the help of financial ratio analysis, we can understand the financial condition and performance of the firm and they would obtain from analysis of the financial data alone. There are following selected financial ratios, which can be analyzed to determine the financial position of an organization.

a) Liquidity Ratio

Liquidity ratio is employed to measure the company's ability to meet short-term obligations. These ratios provide insight into the present cash solvency in the event of adverse financial condition. 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

This ratio measures the short-term solvency, i.e. its ability to meet short-term obligation. As a measure of creditors versus current assets, it indicates each rupee of current assets available by dividing current assets by current liabilities.

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

ii) Quick Ratio

Quick Ratio establishes a relationship 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 value. Cash is the most liquid assets. Other assets, which are considered to be relatively liquid and included in quick assets, are book debts and marketable securities. This quick ratio can be found out by dividing the total of quick assets by total current liabilities.

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

iii) Cash to Current Assets Ratio

This ratio is employed to measure whether total cash balance is sufficient to cover its current assets. It is calculated by dividing total cash balance by current assets.

$$\text{Cash Balance to Current Assets Ratio} = \frac{\text{Cash Balance}}{\text{Current Assets}}$$

b) Turnover Ratio

In a business concern, through these ratios, it is known whether the funds employed have been used effectively in the business activities or not. The following are the ratio employed to analyze the activeness of the concerned company.

i) Inventory Turnover Ratio

Inventory turnover ratio shows the efficiency of the business concern in an inventory management. It established the relationship between cost of goods sold during the given

period and average amount of inventory and lower stock ratio suggests that management should manage its inventory properly. It is calculated as follows:

$$\text{Inventory Turnover Ratio} = \frac{\text{Sales}}{\text{Inventory}}$$

ii) Debtors / Receivables Turnover Ratio:

Although there is no measurement, higher turnover of current assets is always desirable as it indicates the maximum utilization of current assets during the year. Therefore, lower ratio indicates greater volume of working capital and vice versa.

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

iii) Cash Turnover Ratio

Cash turnover ratio shows the number of times the average cash balance is turned over during the year. It measures the speed with which cash moves through the organization operations. The ratio is computed by dividing sales by cash and bank balance.

$$\text{Cash Turnover Ratio} = \frac{\text{Sales}}{\text{Cash Balance}}$$

iv) Net Working Capital Turnover Ratio

The ratio shows the number of times the working capital turned over during the year. The higher ratio indicates the utilization of the working capital and vice versa. The ratios can be defined as,

$$\text{Net Working Capital Turnover Ratio} = \frac{\text{Sales}}{\text{Net Working Capital}}$$

Where,

$$\text{Net Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

c) Profitability Position

Profitability measures the efficiency of the organization; profitability of the firm can be measured by its profitability ratio. So, it plays significant role in any organization. Generally, the profitability positions of the companies are analyzed with the help of following ratios.

i) Net Profit Margin Ratio

The ratio measures the relationship between net profit and sales of the company. It measures the overall profitability or company's ability to earn net profit. It is computed as net profit by sales.

$$\text{Net Profit Margin Ratio} = \frac{\text{Net profit}}{\text{Sales}}$$

ii) Operating Ratio

The overall ratio is an important ratio, which is calculated to ascertain the relationship between operating expenses and volume of sales. The ratio is computed as follows:

$$\text{Operating Ratio} = \frac{\text{Cost of Goods Sold} + \text{Operating Expenses}}{\text{Sales}} \times 100$$

Operating Expenses = Administrative Expenses + Selling & Distribution Expenses + Financial Expenses

Higher ratio indicates the lower efficiency of the company and vice versa. Higher operating ratio means small amount of operating income to meet interest and dividends. So, it is not seems to be favorable for company while there is higher rate of operating ratio.

iii) Return on Total Assets Ratio

Return on total assets ratio measures the profitability of the company by established relationship between net profit after taxes and total assets. It also helps to understand the utilization of assets of the company. The ratio is computed as follows:

$$\text{Return on Total Assets} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}} \times 100$$

iv) Return on Net worth Ratio

The ratio indicates the return to the shareholders. It shows whether the firm has earned satisfactory return for its shareholders or not. Higher return on net worth ratio indicates

higher return to the shareholders and vice-versa. The ratio is computed as follows:

$$\text{Return on Net Worth Ratio} = \frac{\text{Net Profit After tax}}{\text{Net Worth}} \times 100$$

v) Return on Working Capital / Return on Current Assets Ratio

The ratio measures the profitability position of the company with respect to current assets. Higher ratio indicates higher utilization of current assets to earn profit and vice-versa. The ratio is computed by dividing net profit after tax by current assets or working capital.

$$\text{Return on Current Assets} = \frac{\text{Net Profit After Tax}}{\text{Current Assets}} \times 100$$

d) Working Capital Cash Flow Cycle

The continuous flow from cash to supplier, to inventory, to account receivable and back into cash is known as working capital cash flow cycle. It continuously repeats. The cycle demonstrates the conversion of raw materials and labor to cash. Hence this concept is also called cash conversion cycle model.

Cash conversion cycle model has been applied to more complex business and it is useful when analyzing the effectiveness of a firm's working capital management. There are following four factors of cash conversion cycle model.

i. Inventory Conversion Period (ICP)

The length of time required converting raw material into finished goods and then to sell these goods can be defined as inventory conversion period. This period indicates its product. Inventory turnover is calculated by dividing the cost of goods sold by average inventory. It can be said as time required for conversion inventory into cash. It can be calculated as follows:

$$\text{Inventory Conversion Period} = \frac{360\ \text{Day}}{\text{Inventory Tumover}}$$

$$\text{Inventory Turnover} = \frac{\text{Costofgood Sold}}{\text{Averageinv Entory}}$$

ii. Receivable Conversion Period (RCP)

Receivable conversion period indicates the number of day's debtor's turnover into cash. It analyses to determine collection of debtors and also efficiency of collection effects. It is one of the important financial tools for the measurement of cash conversion cycle. Generally, the longer the collection period, the more efficient is the management of credit receivable collection period is also known as average collection period or day's sales outstanding (DSO) RCP be calculated s follows:

$$\text{Receivable Conversion Period} = \frac{\text{Sales}}{\text{Receivalestu Mover}}$$

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

iii. Payable Deferral Period (PDP)

Time required purchasing raw material and labor and the payment of cash for them is called payable deferral period. It indicates the speed of creditor payable conversion period is favorable for the creditor too much higher period also can hamper the credit worthiness of the company. The payable deferral period can be calculated using following formula:

$$\text{Payable Deferral Period} = \frac{\text{Account Payable}}{\text{Purchase Perday}}$$

iv. Cash Conversion Cycle (CCC)

Cash conversion cycle is an important financial tool and also a quick and convenient way to analyze the ongoing liquidity of the firm over time. It generally measures the length of time that funds tied up in working capital. Cash conversion cycle can be calculated by using following formula:

Cash Conversion Cycle (CCC) = Inventory Conversion Period (ICP) +Receivable Conversion Period – Payable Deferral Period (PDF)

As we know that inventory and receivables are cash inflow of business and PDP is cash outflow of business. So for the calculation of conversion cycle RCP and ICP should be added and PDP should be deducted.

3.7 Statistical Tools used

The research hold varies statistical tools, which are defined as follows:

i. Mean

The most popular and widely used measure of representing the entire data by one value is known as average or mean. The value is obtained by adding together all the items and by dividing this total by the number of items. It represents the entire data, which lies almost between the two extremes. Mean can be calculated as;

$$\text{Mean} = \frac{\sum X}{n}$$

ii. Standard Deviation (S.D)

The standard deviation is an important and widely used measure of dispersion. The measurement of the scatters of the mass of figures in a series about in average is known as dispersion. The standard deviation (SD) is an absolute measurement of dispersion in which the drawbacks present in other measures of dispersion are removed. The high amount of dispersion reflects high standard deviation. The small standard deviation means the high degree of homogeneity of the observations. It is calculated for selected dependent and independent variables specified. It is the positive square root of the arithmetic mean of the standard deviation from arithmetic mean. It is usually denoted by (small sigma).

$$SD(\sigma) = \sqrt{\frac{\Sigma(X-\bar{X})}{n}}$$

iii. Coefficient of Variation

The coefficient of variation reflects the relation between standard deviation and mean. The relative measure of dispersion based on the standard deviations known as coefficient of variation. The coefficient of dispersion based on standard deviation multiplied by 100 is known as the CV. It is used for comparing variability of two distributions; the CV is defined as,

$$CV = \frac{\sigma}{\bar{X}} \mid 100$$

Greater the CV, the more variable or conversely less consistent, less uniform, less stainable and homogenous than the consistent more uniform, more stable and homogenous. This nature of CV uses that actual size of working capital.

iii. Simple Correlation Coefficient

The relationship between two variables (one dependent and one independent) is called simple correlation. The most important method of measuring the correlation between the two variables is "Karl Pearson's coefficient of Correlation". This method of measuring correlation is also called "Pearsonian coefficient of Correlation". This is the mathematical method of measuring the degree of association between the two variables.

Correlation analysis is the statistical tools that we can use to describe the degree to which one variable is linear related to another. Coefficient of correlation is the measurement of the degree of relationship between two casually related sets of figure whether positive or negative. Its values lie somewhere ranging between - 1 to +1. If the both variables are constantly changing in the similar direction, the value of coefficient will be –1, two variables take place in opposite defection. The correlation is said to be perfect negative. In this study, simple correlation is use to examine the relationship of different factors with working capital and other variable.

$$\text{Coefficient of Correlation (r)} = \frac{\text{CoVariance of X \& Y}}{\sigma_X \quad \sigma_Y}$$

Where,

Cov (X, Y) = Covariance of X and Y

Ox = Standard deviation of X

σy = Standard deviation of Y

v. Probable Error (PE)

Probable error of the correlation coefficient denoted by PE is measure of testing reliability of the calculated value of ‘r’

$$P.E. = 0.6745 \frac{1 Zr^2}{\sqrt{n}}$$

a) If r<6PE, it is not significant. So there is no evidence of correlation.

b) If r>6PE, it is highly significant.

The PE of correlation coefficient may be used to determine the limits within the population correlation lies limits for population correlation coefficient are r ± PE. It the correlation c(r) is greater than 6 times of PE ratio the observed value of r is said to be significant. Otherwise nothing can be concluded with certainly. But if the calculated (r) is less than the PE (r) correlation is not at all significant.

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

This chapter presents the calculation of different ratios and their application on analysis of WCM. The ratio will help us to find the objectives of the study and give valuable suggestion to the particular organization for the improvement in further transaction.

4.1 Analysis of Working Capital Position

There are various types of current assets that have been used in an organization. Some of them have held high amount of current assets and some of them have occupied low amount. It is affected by the nature of business and attitude of the management towards risk. The company which has risk adverse management system maintains the high liquid assets in total working capital and vice-verse. The organization that aims to maximize return on investment, the company should earn sufficient return from its operation which depends upon the volume of productions and sales. It should hold optimum current assets in order to meet increasing sales level. The excess and low working capital affects on profitability and liquidity position of the manufacturing companies. Therefore, the effective composition of the current assets has the greater impact on the whole working capital management as well as the success and failure of the organization.

To operate a business, different kinds of assets are needed. For the day-to-day business operation, the different types of current assets are required. The main component the following ratios and tools has been calculated to analyze the working capital position of Nepal Telecom. The major currents assets of Nepal Telecom are cash and bank balance, loan and advances, sundry debtors and stores & Spares. Miscellaneous current assets are also a component of current assets. Interest accrued on investment and unexpired L/C & Advances are included in miscellaneous current assets. The ratio will be calculated to study the working capital position of Nepal Telecom.

The following table shows the amount of cash and bank balance, inter-branch balance, loan and advance, sundry debtors, stores & Spares and miscellaneous the current assets of Nepal Telecom of the study period.

Table 4.1

Current Assets Composition of Nepal Telecom (Rs. '000')

Fiscal Year	Stores & Spare	Sundry Debtors	Loans & Advance	Cash & Bank Balance	Total Current Assets
2063/064	327684	3455511	5088713	14746337	23618245
2064/065	416424	3318464	4143958	16134516	24013362
2065/066	180131	3593205	5699165	18191058	27663559
2066/067	842,405	4,295,998	6,805,636	21,611,536	33555575
2067/068	958,052	3,904,742	8,747,035	16,769,204	30379033

Source: Annual Report of Nepal Telecom, 2063 to 68

Table 4.1, represents that the composition of current assets of Nepal Telecom. Cash & Bank balance is rapidly increased over the study period. Similarly, Loan & Advance also increased. Sundry debtors were not in consistency. Store & spares decreased in the fiscal year 2065/66 and thereafter increased, the overall, total current assets rapidly increased during the study period.

Table 4.2

Percentage of Current Assets to Total Current Assets

Fiscal Year	Stores & Spare	Sundry Debtors	Loans & Advance	Cash & Bank Balance	Total
2063/064	1.39	14.63	21.55	62.43	100
2064/065	1.73	13.82	17.26	67.19	100
2065/066	0.65	12.99	20.60	65.76	100
2066/067	2.51	12.80	20.28	64.41	100
2067/068	3.15	12.85	28.79	55.21	100

Source: Table 4.1

Figure 4.1

Percentage of Current Assets

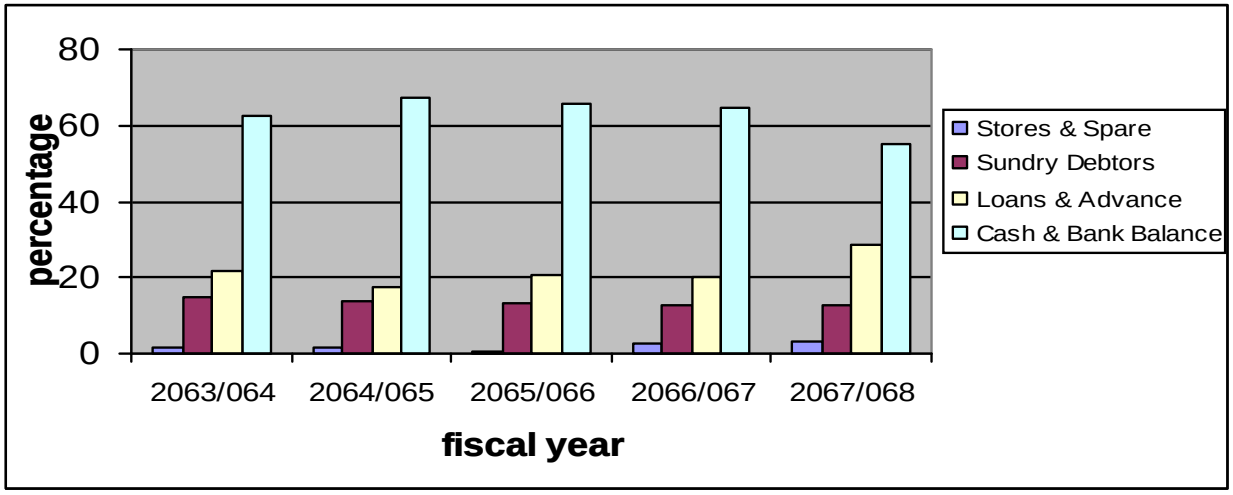


Figure 4.1 presents that the currents assets in percentage of Nepal Telecom for the five fiscal year. In comparison to other current assets, cash & bank balance was higher. The lowest current asset was store & spare.

4.1.1 Gross Working Capital or Current Assets to Total Assets Ratio

This ratio can be analyzed to study the position of working capital of the company. It expresses the gross working capital portion that is held in total assets. In other words, it shows how much percentage of total assets has been invested on gross working capital of the company. It can be calculated by current assets divided by total assets which have been shown in the table below.

Table 4.3

Gross Working Capital or Current Assets to Total Assets Ratio **(**Rs in '000'**)**

Fiscal year	Current Assets	Total Assets	Ratio (%)
2063/064	23618245	34234180	68.99
2064/065	24180638	37241988	64.92
2065/066	27663559	38837295	71.22
2066/067	33555575	66835844	50.20
2067/068	30379033	76021558	39.96
Total	139397050	253170865	295.31
Mean	27879410	50634173	59.06
S.D.			2.51

C.V.	4.16

Table 4.3 shows that the current assets with respect to total assets ratio are not consistent over the study period. The current assets and total assets were in increasing trend in every fiscal year. The current assets to total assets ratio increased to the fiscal year 2065/066 thereafter it was in decreasing trend. The highest ratio was 68.99% in the fiscal year 2063/064, which assets are Rs. 23,618,245 thousand and Rs. 34,234,180 thousand respectively and the lowest ratio was 39.96% in fiscal year 2067/068, which current assets and total assets are Rs. 30,379,033 thousand and Rs. 76,021,558 thousand respectively. The standard deviation and coefficient of covariance was 2.51 and 4.16 % respectively.

Figure 4.2
Gross Working Capital or Current Assets to Total Assets Ratio

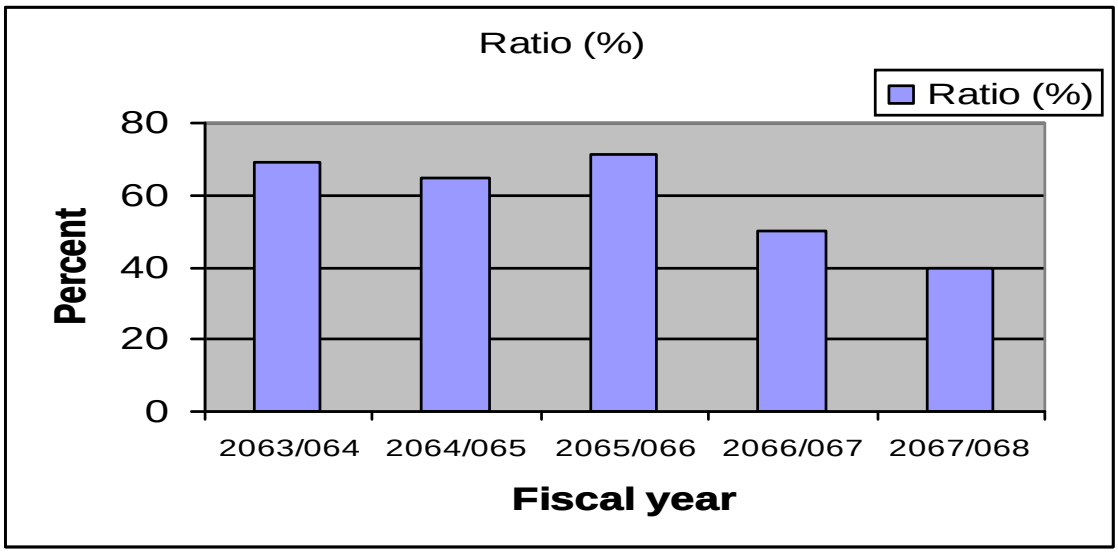


Figure 4.2 presents that the Current Assets to total assets Ratio of Nepal Telecom which is not consistent over the study period.

4.1.2 Net Working Capital with respect to Total Assets Ratio

The major objective of this ratio is to examine the portion of net working capital on total assets, which has been invested to run the business smoothly. It is calculated as NWC divided by TA shown in following table.

Table 4.4

Net Working Capital to Total Assets Ratio **(**Rs in '000'**)**

Fiscal year	Net Working Capital	Total Assets	Ratio (%)
2063/064	17,393,250	34234180	50.80
2064/065	18,748,735	37241988	50.34
2065/066	20,835,286	38837295	53.64
2066/067	29,739,869	66835844	44.49
2067/068	28,050,769	76021558	41.96
Total	114,767,909	243985151	241.26
Mean	22953581.8	48797030.2	48.25
S.D.			1.96
C.V.			4.04

Source: Appendix-2

Table 4.4 shows that the net working capital to total assets ratio of Nepal Telecom are not stable over the study period. The net working capital and total assets are in increasing trend in every fiscal year. The net working capital to total assets ratio increased to the fiscal year 2065/066 and thereafter it was in decreasing trend. The highest ratio was 53.64% in the fiscal year 2065/066, which net working capital and total assets are Rs. 20,835,286 thousand and Rs. 38,837,295 thousand respectively and the lowest ratio was 41.96% in fiscal year 2067/068, net working capital and total assets are Rs. 28,050,769 thousand and Rs. 76,021,558 thousand respectively. The standard deviation and coefficient of covariance was 1.96 and 4.04 % respectively.

Figure 4.3

Net Working Capital to Total Assets Ratio

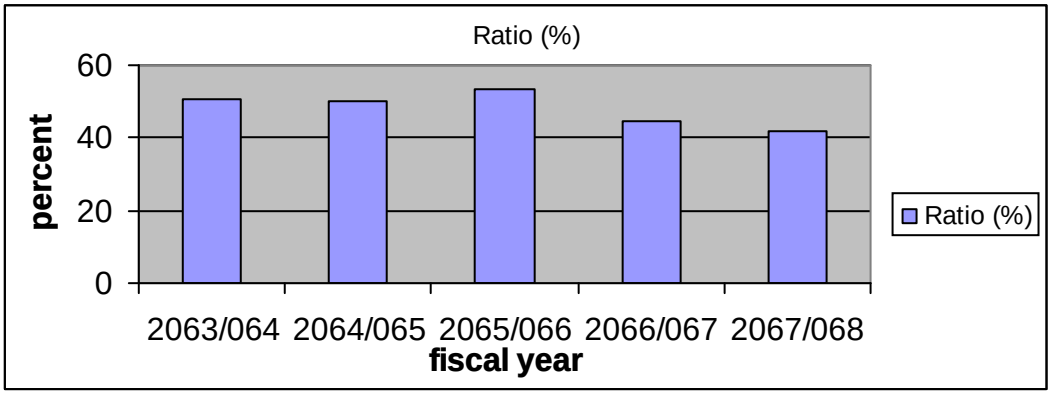


Figure 4.3 presents that the net working capital to total assets Ratio of Nepal Telecom. The highest ratio was in the fiscal year 2065/066. Overall the ratios are not consistent during the study period.

4.1.3 Calculation of Net Working Capital with respect to FA Ratio

This ratio finds the financing policy of the company. It measures how much net working capital has been invested with respect to fixed assets. Net working capital is difference between CA and CL. This ratio can be calculated as NWC divided by FA as shown in the table.

Table 4.5
Net Working Capital to Fixed Assets Ratio **(**Rs in '000'**)**

Fiscal year	Net Working Capital	Fixed Assets	Ratio (%)
2063/064	17,393,250	9,840,397	176.75
2064/065	18,748,735	9,907,614	189.23
2065/066	20,835,286	10,064,206	207.02
2066/067	29,739,869	16,040,917	185.40
2067/068	28,050,769	17,088,427	164.15
Total	114,767,909	62,941,561	922.56
Mean	22,953,581.80	12,588,312.20	184.51
S.D.			6.64
C.V.			3.46%

Source: Appendix-3

Table 4.5 shows that the net working capitals to fixed asset ratio are not stable over the study period. The net working capital and fixed assets are in increasing trend in every fiscal year. The net working capital to fixed assets ratio increased to the fiscal year 2065/066 and thereafter it was in decreasing trend. The highest ratio was 207.02% in the fiscal year 2065/066, which net working capital and fixed assets are Rs. 20,835,286 thousand and Rs10,064,206 thousand respectively and the lowest ratio was 164.15% in fiscal year 2067/068, net working capital and fixed assets are Rs. 28,050,769 thousand and Rs. 17,088,427 thousand respectively. The standard deviation and coefficient of covariance was

6.64 and 3.46 % respectively.

Figure 4.4
Net Working Capital to Fixed Assets Ratio

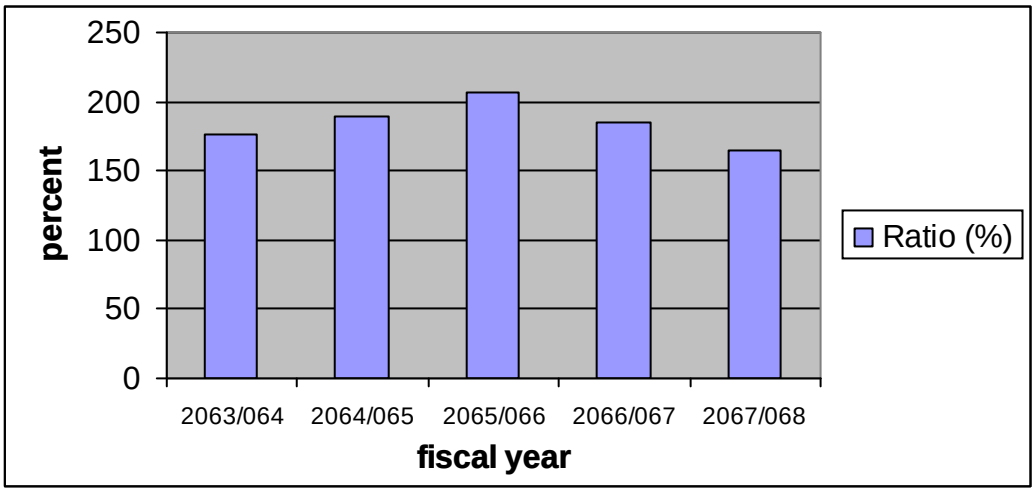


Figure 4.4 shows that the net working capital to fixed assets Ratio of Nepal Telecom. The highest ratio was in the fiscal year 2065/66. Overall the ratios are not consistent during the study period.

4.1.4 Calculation of Cash & Bank Balance with respect to Current Assets Ratio

This ratio helps to know the position of cash and bank balance that has been used in the organization. It is calculated as cash and bank balance divided by current assets shown as table below.

Table 4.6

Cash & Bank Balance to Current Assets Ratio **(**Rs in '000'**)**

Fiscal year	Cash & Bank Bal.	Current Assets	Ratio (%)
2063/064	14746337	23618245	62.43
2064/065	16134516	24180638	66.72
2065/066	18191058	27663559	65.75
2066/067	21,611,536	33555575	64.40
2067/068	16,769,204	30379033	55.19
Total	87452651	139397050	314.52
Mean	17490530	27879410	62.90
S.D.			3.40
C.V.			6.42%

Source: Appendix-4

Table 4.6 shows that the cash & bank balance ratios are not stable over the study period. The cash & bank balance increased every fiscal year except the fiscal year 2067/068. Similarly, current assets also increased every fiscal year of the study period. The highest ratio was 66.72% in the fiscal year 2064/065, which cash & bank balance and current assets are Rs. 16134516 thousand and Rs. 24180638 thousand respectively and the lowest ratio of was 55.19% in fiscal year 2067/068, which cash & bank balance and current assets are Rs. 16,769,204 thousand and Rs. 30379033 thousand respectively. The standard deviation and coefficient of variance was 3.40 and 6.42% respectively.

Figure 4.5
Cash & Bank Balance to CA Ratio

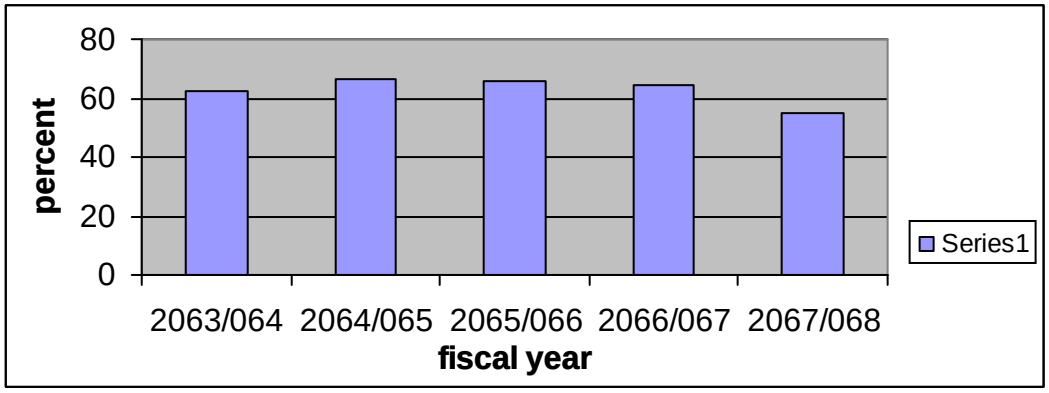


Figure 4.5 presents that the Cash & Bank Balance to Current Assets Ratio of Nepal Telecom. Cash & Bank Balance and current assets are rapidly increased over the study period but cash & bank balance to current assets ratio was not consistent.

4.1.5 Calculation of Debtor with respect to Current Assets Ratio

Debtor is one of the major components of working capital. It indicates the debtor portion that is occupied in current assets. It is calculated as debtor divided by current assets shown in table below.

Table 4.7

Debtors to Current Assets Ratio **(**Rs in '000'**)**

Fiscal year	Debtors	Current Assets	Ratio (%)
2063/064	3455511	23618245	14.63
2064/065	3318464	24180638	13.72
2065/066	3593205	27663559	12.98
2066/067	4,295,998	33555575	12.80
2067/068	3,904,742	30379033	12.85
Total	18567920	139397050	66.99
Mean	3713584	27879410	13.39
S.D.			1.52
C.V.			10.48%

Source: Appendix-5

Table 4.7 shows that the calculation of debtor to current assets ratio. The debtors increased every fiscal year. But the current assets increased every fiscal year of the study period. The highest debtors to current assets ratio was 14.63% in the fiscal year 2063/064, which debtor and current assets are Rs. 3455511 thousand and Rs. 23618245 thousand respectively and the lowest ratio of was 12.80% in fiscal year 2066/067, which debtors and current assets are Rs4,295,998 thousand and Rs. 30379033 thousand respectively. The standard deviation and coefficient of variance was 1.52 and10.48 % respectively.

Figure 4.6

Debtors to Current Assets Ratio

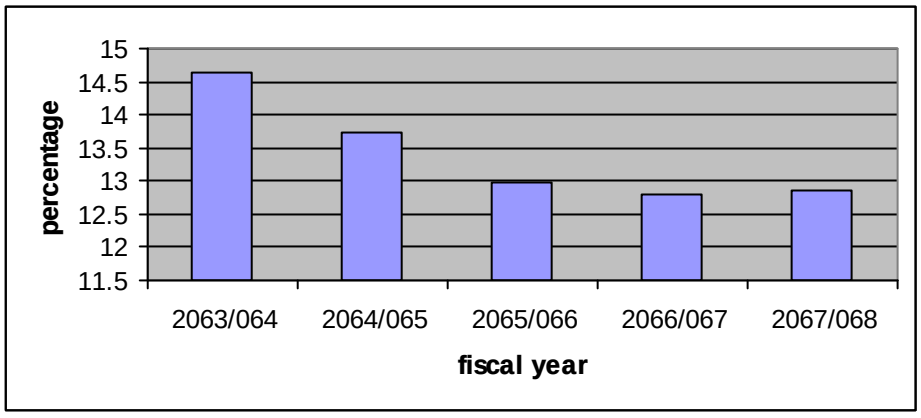


Figure 4.6 shows that the debtors to current assets Ratio of Nepal Telecom. The lowest ratio was in the fiscal year 2066/067. Overall the ratios are not consistent during the study period.

4.2 Analysis of Liquidity Position

Liquidity of any business organization is directly related with working capital or current assets and current liabilities of the organization. In other words, one of the main objectives of working capital management is keeping sound liquidity position. Nepal Telecom is a different organization, which is engaged in mobilization of funds. So without sound liquidity position, Nepal Telecom is not able to operate its function. To measure the Nepal Telecom's solvency position or ability to meet its short-term obligation, various liquidity ratios are calculated and to know the trend of liquidity, trend analysis of major ratio have been considered.

4.2.1 Calculation of Current Ratio

This ratio indicates the current short-term solvency position of Nepal Telecom. Higher current ratio indicates better liquidity position. In other words, current ratio represents a margin of safety, i.e. a 'cushion' of protection for creditors and the highest the current ratio, greater the margin of safety, large the amount of current assets in relation to current liabilities, more the organizations ability to meet its current obligations. It is calculated as current assets by current liabilities.

The following table shows the current ratio to compare the working capital management of Nepal Telecom.

Table 4.9

Current Ratio **(**Rs in '000'**)**

Fiscal year	Current Assets	Current liabilities	Ratio (Times)
2063/064	23618245	4,243,376	5.56
2064/065	24013362	4,775,412	5.02
2065/066	27663559	4,990,353	5.54
2066/067	33555575	6,458,484	5.1
2067/068	30379033	6,075,753	5.0
Total	139229774	26,543,378	26.33
Mean	27845954.8	5308675.6	5.26
S.D.			0.12
C.V.			2.33%

Source: Appendix-7

Table 4.9, shows that the current assets of Nepal Telecom increased every fiscal year of study period. Similarly, current liabilities also increased every fiscal year except in the fiscal year 2067/068. Current ratios are not consistent during the study period. The highest current ratio was 5.56 times in the fiscal year 2063/064, which current assets and current liabilities are Rs. 23618245 thousand and Rs. 4,243,376 thousand respectively and the lowest current ratio was 5.0 times in fiscal year 2067/068, the standard current ratio is 2:1, but the Nepal Telecom current ratio is greater than the standard ratio. The standard deviation and coefficient of variance was 0.12 and 2.33% respectively.

Figure 4.8

Current Ratio

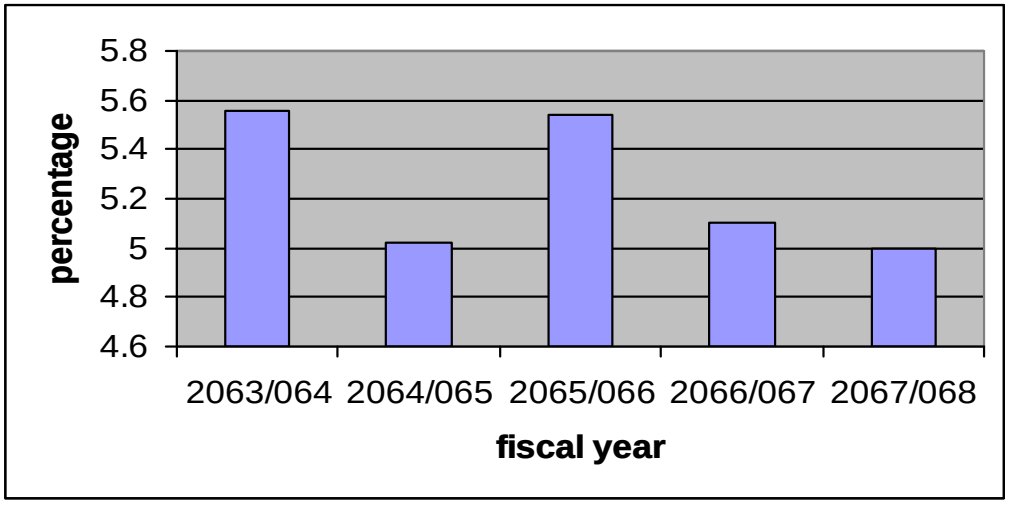


Figure 4.8 represents that the current ratio of Nepal Telecom. Current assets ratio of Nepal Telecom was not consistent during the study period.

4.2.2 Calculation of Quick Ratio

Quick ratio establishes a relationship 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. Quick asset is equals to total current assets without Stores & Spares. This quick ratio is calculated as dividing the total of quick assets by total current liabilities.

For this study, except the stores & spares of total current assets are quick assets. The following table shows the quick ratio of Nepal Telecom.

Table 4.10

Quick Ratio **(**Rs in '000'**)**

Fiscal year	Quick Assets	Current liabilities	Ratio (Times)
2063/064	21,853,395	4,243,376	5.15
2064/065	24,023,363	4,775,412	5.03
2065/066	25,624,330	4,990,353	5.13
2066/067	33,288,496	6,458,484	5.14
2067/068	30,197,207	6,075,753	4.97
Total	134,986,791	26,543,378	25.43
Mean	26,997,358.20	5,308,675.60	5.09
S.D.			0.12
C.V.			2.38%

Source: Appendix-8

Table 4.10 depicts that the quick ratios are not consistent over the study period. The quick assets of Nepal Telecom increased every fiscal year of study period. Similarly, current liabilities also increased every fiscal year except the fiscal year 2067/068. The highest quick ratio was 5.15 times in the fiscal year 2063/064, which quick assets and current liabilities are Rs. 21,853,395 thousand and Rs. 4,243,376 thousand respectively and the lowest current ratio of Nepal Telecom was 4.97 times in fiscal year 2067/068, which quick assets and current liabilities are Rs. 30,197,207 thousand and Rs. 6,075,753 thousand respectively. The standard quick ratio is 1:1, but the Nepal Telecom ratio is higher then the standard ratio. The standard deviation and coefficient of variance was 0.12 and 2.38% respectively.

Figure 4.9

Quick Ratio

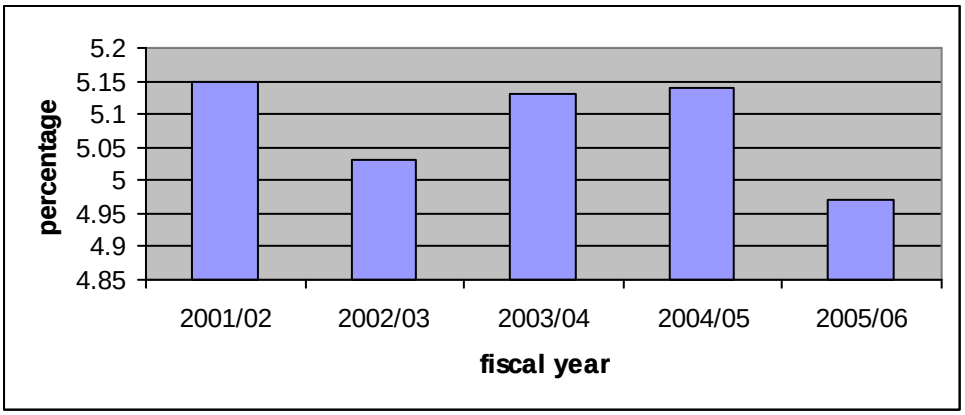


Figure 4.9 represents that the quick assets and current liabilities with quick ratio of Nepal Telecom. Quick assets and current liabilities rapidly increased over the study period but quick ratio was not stable.

4.3 Analysis of Turnover Position

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

4.3.1 Calculation of Inventory Turnover Ratio

This ratio indicates how effectively the organization manages inventory and the efficiency of the firm in selling its product. Inventory turnover ratio is defined as the cost of goods sold or sales dividing by inventories.

Inventory turnover ratio shows how rapidly the inventory is turning into receivable through sales. Generally, a high inventory turnover is the indicative of good inventory management. A low inventory turnover implies excessive inventory level then warranted by production and sales activities or a slow moving or obsolete inventory.

Table 4.11

Inventory Turnover Ratio **(**Rs in '000'**)**

Fiscal year	Net sales	Closing inventory	Ratio (Times)
2063/064	7,159,520	483,231	12.75
2064/065	7,208,087	400,784	17.98
2065/066	8,070,423	301,309	20.15
2066/067	13,584,144	309,857	27.70
2067/068	14,413,655	329,315	31.62
Total	38,435,829	1,824,496	110.2
Mean	7,687,165.8	364,899.2	22.04
S.D.			6.78
C.V.			30.76%

Source: Appendix-9

Table 4.11 shows that the inventory turnover ratios of Nepal Telecom are always in increasing trend over the study period. The net sales increased every fiscal year but in the fiscal year 2065/066 net sales decreased. Closing inventory increased only on the fiscal year 2067/068, thereafter continuously decreased over the study period. The highest inventory turnover ratio was 31.62 times in the fiscal year 2067/068, which net sales and closing inventories are Rs. 14,413,655 thousand and Rs.329, 315 thousand respectively and the lowest inventory turnover ratio was 12.75 times in fiscal year 2063/064, which net sales and closing inventories are Rs. 7,159,520 thousand and Rs.483,231 thousand respectively. The standard deviation and coefficient of variance was 6.78 and 30.76% respectively.

Figure 4.10

Inventory Turnover Ratio

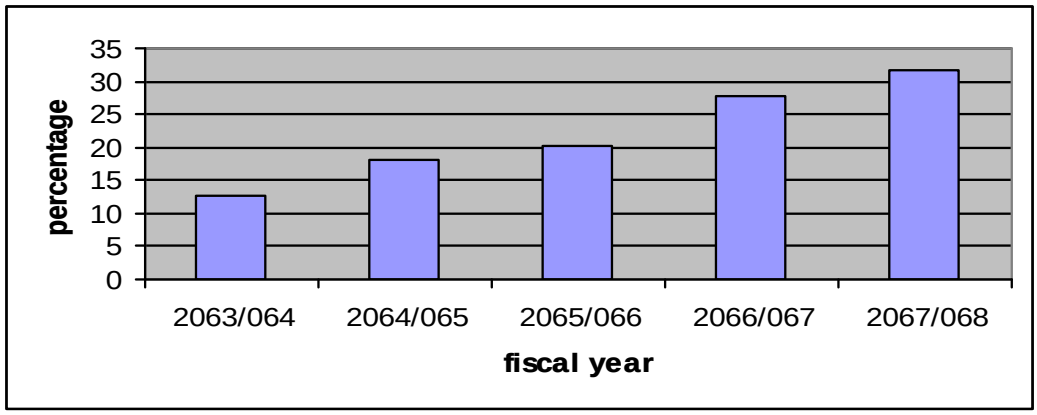


Figure 4.10 represents that net sales and inventory with inventory turnover ratio. Net sales are increased except the fiscal year 2065/066 but inventory are increased only fiscal year

2063/064 thereafter decreased in the study period. Inventory ratio is rapidly increased over the study period.

4.3.2 Calculation of Debtors/ Receivables Turnover Ratio

Debtors / Receivables turnover ratio indicates the speed with which receivable are being converted into sales. This turnover ratio is calculated as net sales by debtors.

The table below shows the net sales to debtors / receivables ratio. This ratio analyzes the capacity of Nepal Telecom management in utilization of fund in current assets.

Table 4.12

Debtors/Receivable Turnover Ratio **(**Rs in '000'**)**

Fiscal year	Net sales	Debtors	Ratio (Times)
2063/064	7,159,520	3455511	2.07
2064/065	7,208,087	3318464	2.17
2065/066	8,070,423	3593205	2.24
2066/067	13,584,144	4,295,998	3.16
2067/068	14,413,655	3,904,742	3.69
Total	38,435,829	18567920	13.60
Mean	7,687,165.8	3713584	2.72
S.D.			0.40
C.V.			14.71%

Source: Appendix-10

Table 4.12 shows that the debtors/receivable turnover ratio was in increasing trend over the study period. The net sales of Nepal Telecom increased every fiscal year. Debtors of Nepal Telecom are not stable over the study period. The highest debtors turnover ratio was 3.69 times in the fiscal year 2067/068, which net sales and debtors are Rs. 14,413,655 thousand and Rs. 3,904,742 thousand respectively and the lowest debtors turnover ratio was 2.07 times in fiscal year 2063/064, which net sales and debtors are Rs. 7,159,520 thousand and Rs. 3455511 thousand respectively. The standard deviation and coefficient of variance was 0.40 and 14.71% respectively.

Figure 4.11

Debtors/Receivable Turnover Ratio

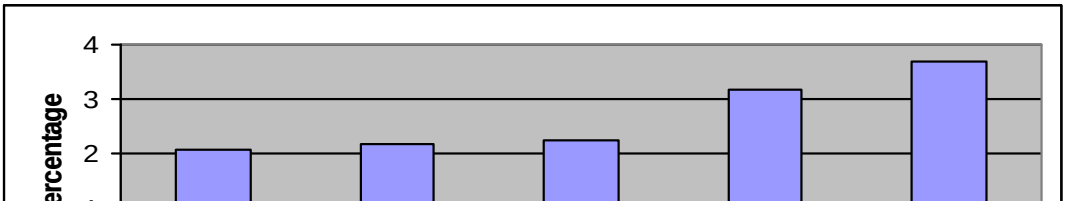


Figure 4.11 shows that net sales and debtors with debtor turnover ratio of Nepal Telecom. Debtors are not consistent over the study period. Debtor turnover ratio increased after the fiscal year 2067/068.

4.3.3 Calculation of Current Assets Turnover Ratio

The amount of working capital is affected by sales policy. If the credit sales are increased more working capital will be required to meet the daily requirement.

The current assets turnover ratio indicates the adequacy of sales in relation to the investment in current assets. Generally a high current assets turnover ratio indicates efficient utilization of current assets. The current assets turnover ratio is calculated by dividing net sales by current assets.

The current assets turnover position of the Nepal Telecom during the period of the study is tabulated as below:

Table 4.13

Current Assets Turnover Ratio **(**Rs in '000'**)**

Fiscal year	Net sales	Current Assets	Ratio (Times)
2063/064	7,159,520	23618245	0.30
2064/065	7,208,087	24013362	0.30
2065/066	8,070,423	27663559	0.29
2066/067	13,584,144	33555575	0.40
2067/068	14,413,655	30379033	0.47
Total	50,435,829	139229774	1.77
Mean	10,087,165.80	27,845,954.80	0.35
S.D.			0.056

C.V.	14.45%

Source: Appendix-11

Table 4.13 shows that current assets turnover ratio increase and thereafter decrease to the fiscal year 2065/066and increase from fiscal year 2066/067 to fiscal year 2067/068. The highest current assets turnover ratio of Nepal Telecom is 0.47 times in the fiscal year 2067/068 which net sales and current assets are Rs. 14,413,655 thousand and Rs. 30379033 thousand respectively and the lowest current assets turnover ratio of Nepal Telecom was 0.29 times in fiscal year 2065/066, which net sales and current assets are Rs8, 070,423 thousand and Rs. 27663559 thousand respectively. The standard deviation and coefficient of variance with respect to current assets turnover ratio are 0.056 and 14.45 % respectively.

Figure 4.12

Current Assets Turnover Ratio

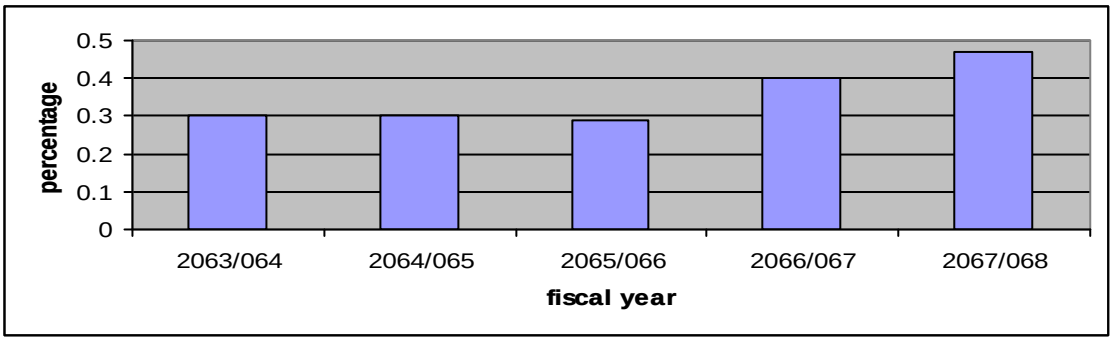


Figure 4.12 represents that net sales and current assets with current assets turnover ratio of Nepal Telecom. Net sales are increased every year and current assets are rapidly increased in the study period. Current assets turnover ratio is rapidly decreased till fiscal year 2065/066 than after increases up to 0.47 times in the fiscal 2067/068 over the study period.

4.3.4 Calculation of Cash Turnover Ratio

Cash turnover ratio indicates the efficiency of management in application of cash. It is one of the main parts of current assets which have greatest value to meet the current obligations occurred in the business. Without adequate cash, business is not possible, but the excess unnecessary holding cost. So the company should try to maintain the adequate amount of cash fund, keeping in mind the risk-return trade off. The cash turnover ratio is calculated as

net sales by cash & bank balances.

Table 4.14

Cash Turnover Ratio **(**Rs in '000'**)**

Fiscal year	Net sales	Cash & Bank Bal.	Ratio (Times)
2063/064	7,159,520	14746337	0.48
2064/065	7,208,087	16134516	0.44
2065/066	8,070,423	18191058	0.43
2066/067	13,584,144	21611536	0.62
2067/068	14,413,655	16769204	0.85
Total	50,435,829	87452651	2.86
Mean	10,087,165.80	17,490,530.20	0.57
S.D.			0.14
C.V.			18.29%

Source: Appendix-12

Table 4.14 shows that the cash turnover ratios of Nepal Telecom are not consistent over the study period. The net sales of Nepal Telecom increased every fiscal year. Cash & bank balance of Nepal Telecom increased every fiscal year. The highest cash turnover ratio was 0.85 times in the fiscal year 2067/068, which net sales and cash & bank balance are Rs. 14,413,655 thousand and Rs 16769204 thousand respectively and the lowest cash turnover ratio was 0.43 times in fiscal year 2065/066, which net sales and cash & bank balance are Rs. 8,070,423 thousand and Rs. 18191058 thousand respectively. The standard deviation and coefficient of variance with respect to cash turnover ratio are 0.14 and 18.29 % respectively.

Figure 4.13

Cash Turnover Ratio

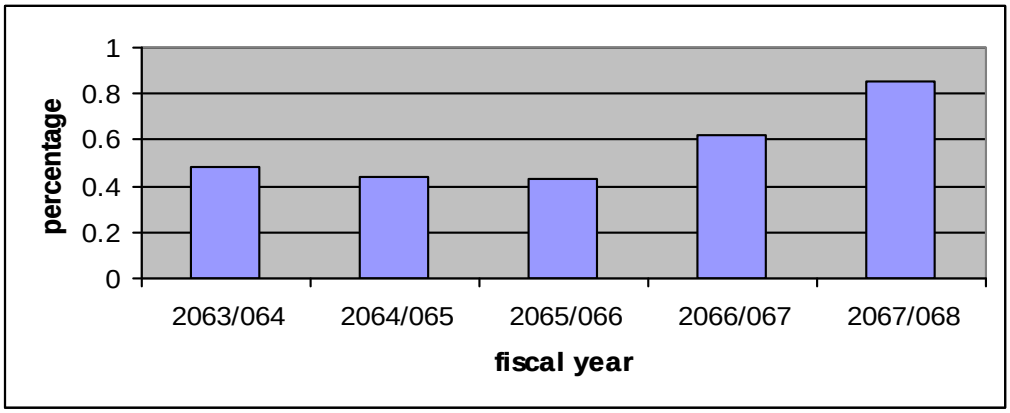


Figure 4.13 shows that net sales and cash & bank balance with cash turnover ratio of Nepal Telecom. Net sales are increased except and cash & bank balance are rapidly increased over the study period. Cash turnover ratio of the Nepal Telecom decreased from the fiscal year 2064/065 to the fiscal year 2065/066 and after increased from fiscal year 2065/066.

4.3.5 Net Working Capital Turnover Ratio

Net working capital is the difference between current assets and current liabilities. This ratio explains the net working capital has been utilized to general sales in an organization. The size of working capital depends up on production cycle and business cycle.

This indicates the velocity of the utilization of working management. This ratio measures the efficiency with which the working capital is being used by Nepal Telecom. It is calculate as net sales by net working capital.

Table 4.15

Net Working Capital Turnover Ratio **(**Rs in '000'**)**

Fiscal year	Net sales	Net working Capital	Ratio (Times)
2063/064	7,159,520	17,393,250	0.41
2064/065	7,208,087	18,748,735	0.39
2065/066	8,070,423	20,835,286	0.38
2066/067	13,584,144	29,739,869	0.45
2067/068	14,413,655	28,050,769	0.51
Total	50,435,829	114,767,909	2.15
Mean	10,087,165.80	22,953,581.80	0.43
S.D.			0.071
C.V.			14.63%

Source: Appendix-13

Table 4.15 shows that the net working capital turnovers are not stable over the study period. Net sales increased every fiscal year over the study period. Similarly, net working capitals of Nepal Telecom are increasing trend. The highest net working capital turnover ratio was 0.51 times in the fiscal year 2067/068, which net sales and net working capital are Rs. 14,413,655 thousand and Rs. 28,050,769 thousand respectively and the lowest net working capital turnover ratio was 0.38 times in fiscal year 2065/066, which net sales and net working

capital are Rs. 8,070,423 thousand and Rs. 20,835,286 thousand respectively. The standard deviation and coefficient of variance with respect to net working capital turnover ratio are 0.071 and 14.63 % respectively.

Figure 4.14

Net Working Capital Turnover Ratio

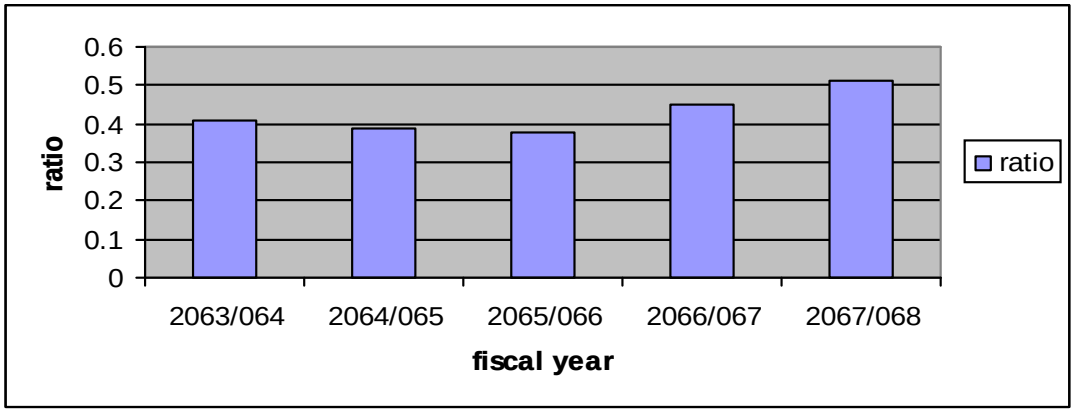


Figure 4.14 represents that net sales and net working capital with net working capital turnover ratio of Nepal Telecom. Net working capitals are rapidly increased over the study period. Net working capital turnover ratio is increased just the fiscal year 2063/064 thereafter decreased over the study period till fiscal year 2065/066 and after the fiscal year 2065/066 net working capital turnover ratio increases till fiscal year 2067/068.

4.4 Profitability Position

Generally, profit is the difference between total revenue and total expenses over a period of time. Profitability measures efficiency and the search for it provides an incentive to achieve efficiency. Profitability ratios are those ratios which indicate degree of success in achieving desired profit level. Profit is an important factor that determines the firms' expansion and diversification. A required level of profit is necessary for the firms' 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.

4.4.1 Calculation of Net Profit Margin

Net profit margin is the relation between net profit after taxes and net sales. It indicates management efficiency in controlling the manufacturing and administrative cost of the products. The net profit margin reflects how much amount of net profit has been earned in the sales of one rupee. A high result is favorable and otherwise vice-versa. High result insures adequate return to the owner. Net profit margin is as net profit after taxes by net sales multiply hundred.

Table 4.16

Net Profit Margin Ratio **(**Rs in '000'**)**

Fiscal year	Net profit after taxes	Net sales	Ratio (Times)
2063/064	2,967,930	7,159,520	41.45
2064/065	2,967,930	7,208,087	42.83
2065/066	2,967,930	8,070,423	40.23
2066/067	5,542,461	13,584,144	40.80
2067/068	6,736,647	14,413,655	46.73
Total	21,582,121	50,435,829	42.79
Mean	4,316,424.20	10,087,165.80	42.79
S.D.			3.42
C.V.			8.21%

Source: Appendix-14

Table 4.16 depicts that net profit margin ratios are not consistent over the study period. Net profit after taxes of Nepal Telecom continuously increased. Net sales increased every fiscal year. The highest net profit margin ratio was 46.73% in the fiscal year 2067/068 which net profit after taxes and net sales are Rs. 6,736,647 thousand and Rs. 14,413,655 thousand

respectively and the lowest net profit margin ratio of Nepal Telecom was 40.23% in fiscal year 2065/066 , which net profit after taxes and net sales are Rs. 3,247,301 thousand and Rs. 8,070,423 thousand respectively. The standard deviation and coefficient of variance with respect to net profit margin ratio are 3.42 and 8.21% respectively.

Figure 4.15

Net Profit Margin

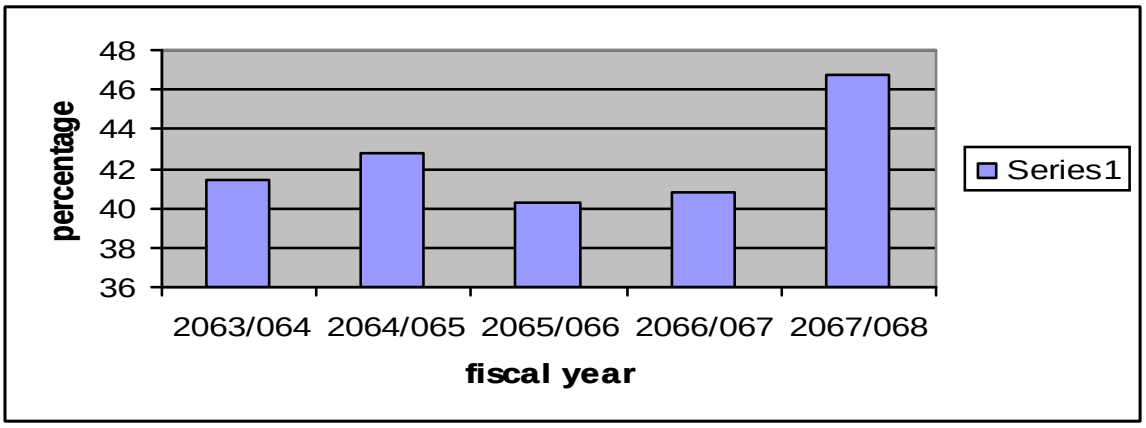


Figure 4.15 represents that net profit margin ratio of Nepal Telecom. Net profit and net sales increased except the fiscal year 2065/066.

4.4.2 Calculation of Operating Ratio

The operating ratio is computed by dividing all operating expenses by net sales. The operating ratio is an important ratio that explains the change in the net profit margin ratio. A higher operating ratio is unfavorable since it will leave a small amount of operating income to meet interest as dividend. Operating ratio is calculated as operating expense by net sales multiply by hundred.

Table 4.17

Operating Ratio **(**Rs in '000'**)**

Fiscal year	Operating expenses	Net sales	Ratio (Times)
2063/064	3,735,929	7,159,520	52.18
2064/065	3,576,165	7,208,087	49.61

2065/066	4,408,767	8,070,423	54.61
2066/067	6,772,768	13,584,144	49.85
2067/068	6,815,188	14,413,655	47.28
Total	25,308,817	50,435,829	253.56
Mean	5,061,763.40	10,087,165.80	50.71
S.D.			4.82
C.V.			9.75%

Source: Appendix-15

Table 4.17 shows that operating ratios are not consistent over the study period. Operating expenses of Nepal Telecom are not stable over the study period. Net sales increased every fiscal year. The highest operating ratio was 54.61% in the fiscal year 2065/066, which operating expenses and net sales are Rs. 4,408,767 thousand and Rs. 8,070,423 thousand respectively and the lowest operating ratio was 47.28% in fiscal year 2067/068, which operating expenses and net sales are Rs. 6,815,188 thousand and Rs. 8,070,423 thousand respectively. The standard deviation and coefficient of variance with respect to operating ratio are 4.82 and 9.75% respectively.

Figure 4.16
Operating Ratio

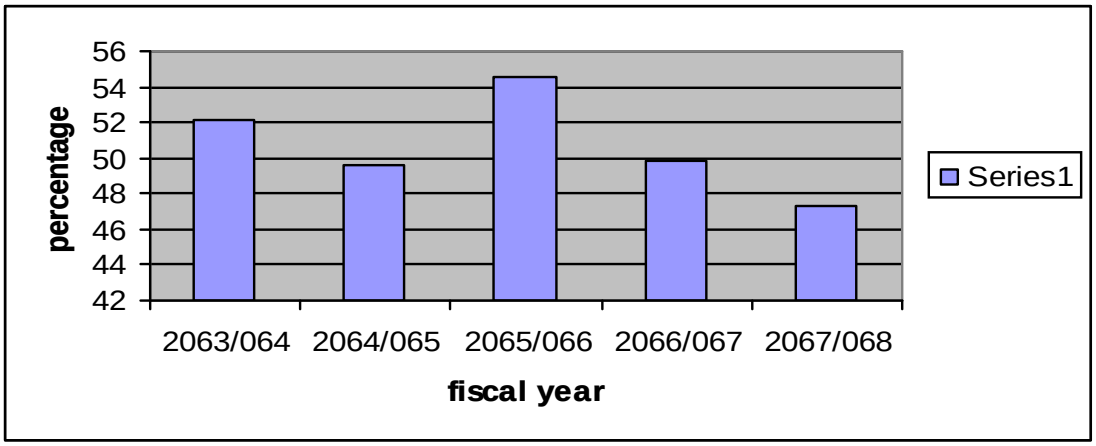


Figure 4.16 presents that operating expenses and net sales with operating ratio of Nepal Telecom. Operating expenses and net sales increased till the fiscal year 2065/066 and then decreased. Operating ratio of Nepal Telecom was not stable over the study period.

4.4.3 Calculation of Return on Total Assets

This ratio is useful in measuring the profitability of all financial resource invested in the firm's assets. The return on assets or profit to assets ratio is calculated by dividing the amount of net profit after taxes by the amount of total assets employed. The return on total assets is calculated as net profit after taxes by total assets multiply by hundred.

Table 4.18
Return on Total Assets **(**Rs in '000'**)**

Fiscal year	Net profit after taxes	Total Assets	Ratio (Times)
2063/064	2,967,930	34234180	8.66
2064/065	3,087,782	37241988	8.30
2065/066	3,247,301	38837295	8.36
2066/067	5,542,461	66835844	8.29
2067/068	6,736,647	76021558	8.86
Total	21,582,121	253170865	42.47
Mean	4,316,424.20	50634173	8.49
S.D.			1.81
C.V.			18.35%

Source: Appendix-16

Table 4.18 represents that return on total assets ratio are not consistent over the study period. Net profit after taxes continuously increased. Similarly, total assets continuously increased every fiscal year of the study period. The highest return on total assets of Nepal Telecom was 8.86 % in the fiscal year 2067/068, which net profit after taxes and total assets are Rs 6,736,647 thousand and Rs. 76021558 thousand respectively and the lowest return on total assets was 8.29% in fiscal year 2066/067, which net profit after taxes and total assets are Rs. 5,542,461 thousand and Rs.366835844 thousand respectively. The standard deviation and coefficient of variance with respect to return on total assets are 1.81and 18.35 % respectively.

Figure 4.17

Return on Total Assets

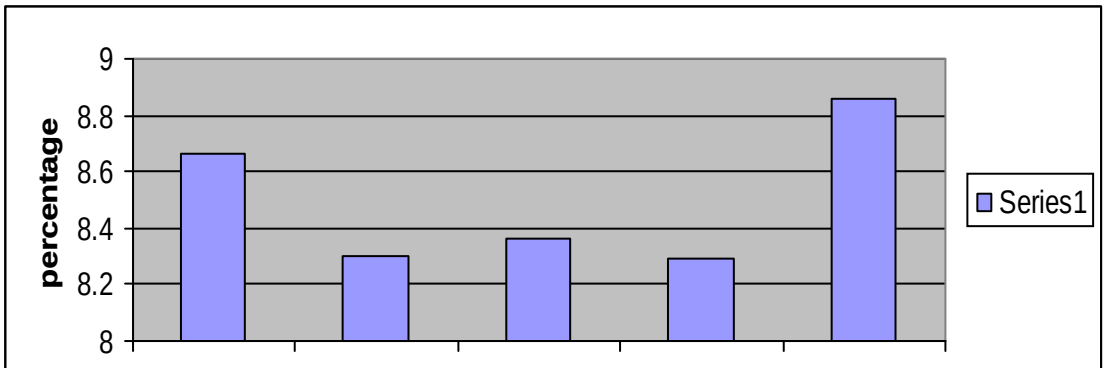


Figure 4.17 shows that net profit Vs total assets and return on total assets of Nepal Telecom. Net profits and total assets rapidly increased over the study period.

4.4.4 Calculation of Return on Net Worth

The return on net worth ratio is measure of profitability of the firm in respect of the utilization of net worth. It is calculated by dividing net profit after taxes by net worth. The net worth includes total equity capital and total reserve & surplus. It reflects whether the corporation has earned a satisfactory return for its equity-holders or not. So, higher ratio is favorable of the stockholders. The return on net worth is calculated as net profit after taxes by net worth multiply by hundred.

Table 4.19

Return on Net worth **(**Rs in '000'**)**

Fiscal year	Net profit after taxes	Net worth	Ratio (Times)
2063/064	2,967,930	19,927,414	14.89
2064/065	3,087,782	20,521,866	15.04
2065/066	3,247,301	30,757,100	10.55
2066/067	5,542,461	33,825,855	16.38
2067/068	6,736,647	35,686,027	18.88
Total	21,582,121	140,718,262	75.76
Mean	4,316,424.20	28,143,652.40	15.15
S.D.			3.257
C.V.			20.596%

Source: Appendix-17

Table 4.19 shows that return on net worth are not stable during the study period. Net profit

after taxes continuously increased..Net worth of Nepal Telecom is also rapidly increased every fiscal year. The highest return on net worth was 18.88% in the fiscal year 2067/068, which net profit after taxes and net worth are Rs. 6,736,647 thousand and Rs. 35,686,027 thousand respectively and the lowest return on net worth was 10.55% in fiscal year 2065/066, which net profit after taxes and net worth are Rs. 3,247,301 thousand and Rs. 30,757,100 thousand respectively. The standard deviation and coefficient of variance with respect to return on net worth are 3.257 and 20.596 % respectively.

Figure 4.18

Return on Net Worth

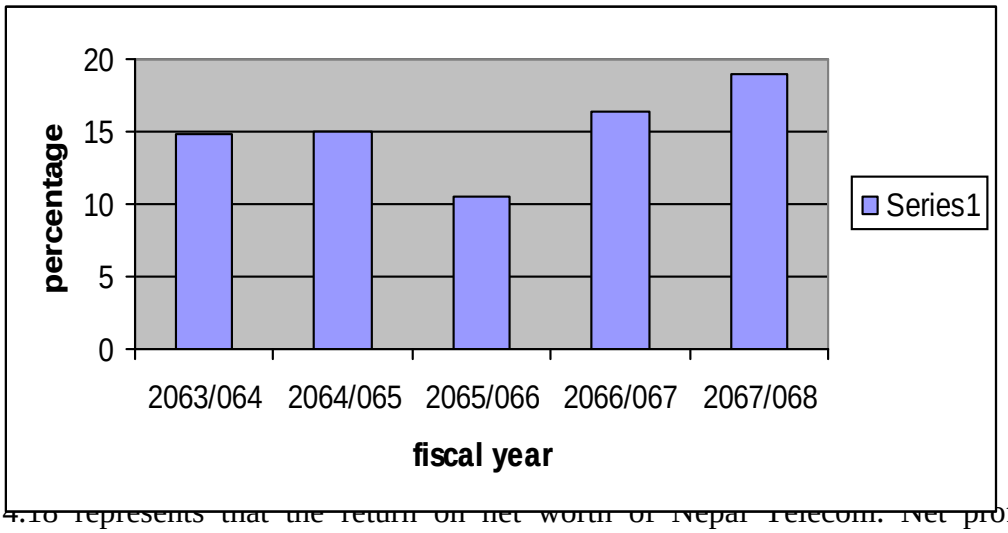


Figure 4.18 represents that the return on net worth of Nepal Telecom. Net profits are increased and net worth is speedily increased over the study period.

4.4.5 Calculation of Return on Working Capital

Return on net working capital measures the profitability and also indicates the efficiency of working capital of Nepal Telecom. It indicates how Nepal Telecom has used its available resources. The return on net worth is calculated as net profit after taxes by working capital multiply by hundred.

Table 4.20
Return on Working Capital **(**Rs in '000'**)**

Fiscal year	Net profit after taxes	Working capital	Ratio (Times)
2063/064	2,967,930	17,393,250	17.06

2064/065	3,087,782	18,748,735	16.46
2065/066	3,247,301	20,835,286	15.58
2066/067	5,542,461	29,739,869	18.63
2067/068	6,736,647	28,050,769	24.01
Total	21,582,121	114,767,909	91.77
Mean	4,316,424.20	22953581.8	18.35
S.D.			4.45
C.V.			21.76%

Source: Appendix-18

Table 4.20 shows that return on working capital is not consistent over the study period. Net profit after taxes is continuously increased; working capital rapidly increased every fiscal year. The highest return on working capital was 24.01% in the fiscal year 2067/068, which net profit after taxes and working capital are Rs. 6,736,647 thousand and Rs. 28,050,769 thousand respectively and the lowest return on working capital was 15.58% in fiscal year 2065/066, which net profit after taxes and working capital are Rs. 3,247,301 thousand and Rs. 20,835,286 thousand respectively. The standard deviation and coefficient of variance with respect to return on working capital are 4.45 and 21.76% respectively.

Figure 4.19
Return on Working Capital

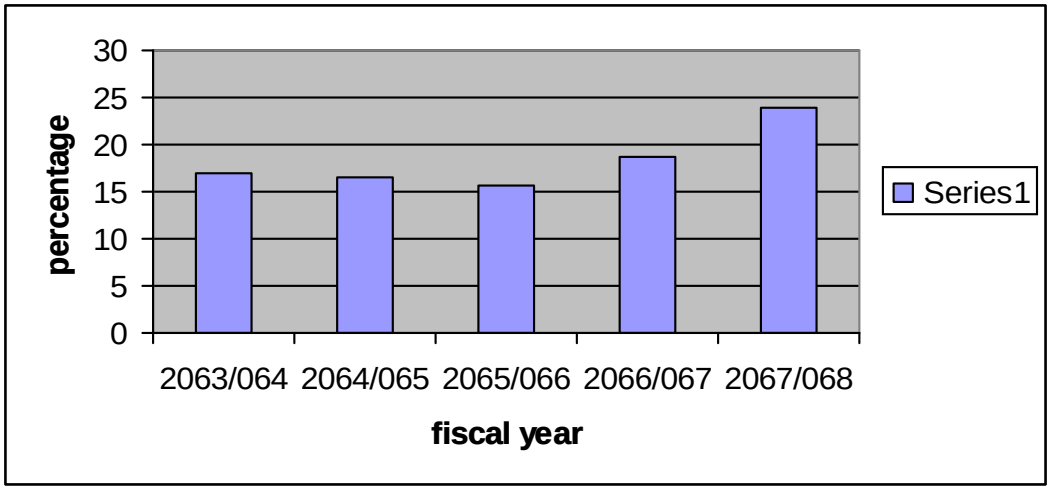


Figure 4.19 represents that the return on working capital. Net working capital is in increasing trend during the study period. Return on working capital is in increasing trend except the fiscal year 2065/066.

4.5 Analysis of Different Ratios

i. Analysis of Liquidity Ratio

Liquidity ratio measures the short term solvency position of the organization. It plays a vital role in the organization. Liquidity position shows the ability of the organization to pay its current obligation i.e. it determines the short-term solvency position of any organization.

Table 4.21
Liquidity Ratio

Fiscal year	Current Ratio (times)	Quick Ratio (times)	Cash & Bank Bal. to Current Assets Ratio (%)
2063/064	5.56	5.15	62.43
2064/065	5.02	5.03	66.72
2065/066	5.54	5.13	65.75
2066/067	5.1	5.14	64.40
2067/068	5.0	4.97	55.19
Average	5.26	5.09	62.92

ii. Analysis of Turnover Ratio

Table 4.22

Turnover Ratio

Fiscal year	Inventory Turnover	Debtors Turnover	Current Assets turnover	Ratio in % Cash Turnover
2063/064	12.75	2.07	0.30	0.48
2064/065	17.98	2.17	0.30	0.44
2065/066	20.15	2.24	0.29	0.43
2066/067	27.70	3.16	0.40	0.62
2067/068	31.62	3.69	0.47	0.85
Average	22.04	2.72	0.35	0.57

iii. Analysis of Profitability Ratio

Table 4.23

Profitability Ratio

Fiscal year	Net Profit Margin	Operating Ratio	Return on Total Assets	Return on Net Worth	Return on Working Capital
2063/064	41.45	52.18	8.66	14.89	17.06
2064/065	42.83	49.61	8.30	15.04	16.46
2065/066	40.23	54.61	8.36	10.55	15.58
2066/067	40.80	49.85	8.29	16.38	18.63
2067/068	46.73	47.28	8.86	18.88	24.01
Average	42.79	50.71	8.49	15.15	18.35

4.6 Analysis of Working Capital Cash Flow Cycle

Working capital management originated with the old Yankee peddler, who would borrow to buy inventory, sell the inventory to pay the bank loan, and then repeat the cycle. Cash conversion cycle model has been applied to more complex business and it is useful when analyzing the effectiveness of a firm's working capital management. There are following four factors of cash conversion cycle model.

i. Inventory Conversion Period (ICP)

ii. Receivable Conversion Period (RCP)

iii. Payable Deferred Period (PDP)

iv. Cash Conversion Cycle (CCC)

4.6.1 Inventory Conversion Period (ICP)

The inventory conversion period is the average length of time required to convert material into finished goods and then to sell those goods. The inventory turnover shows how rapidly the inventory is turning into receivable through sales. The short period indicates fast conversion of inventory to sale and the long period indicates slow conversion period. Inventory conversion period is calculated by dividing days in year by inventory turnover ratio.

Table 4.24
Inventory Conversion Period (ICP)

Fiscal year	Days in year	Inventory turnover	ICP (days)
2063/064	365	12.75	28.62
2064/065	365	17.98	20.30
2065/066	365	20.15	18.11
2066/067	365	27.70	13.17
2067/068	365	31.62	11.54
Total			91.80
Mean			18.36
S.D.			6
C.V.			32.68%

Source: Appendix-19

Table 4.25 shows that the inventory conversion period of the five fiscal year of Nepal Telecom. The inventory turnover increased in every fiscal year of the study period. The inventory conversion period was in decreasing trend over the study period. The highest inventory conversion period was 28.62 days in the fiscal year 2063/064 and the lowest receivable conversion period was 11.54 days in the fiscal year 2067/068. The decreasing trend of ICP shows that the inventories rapidly convert into sales. The standard deviation and coefficient of variance with respect to inventory conversion period are days 6 and 32.68 % respectively.

Figure 4.20
Inventory Conversion Period (ICP)

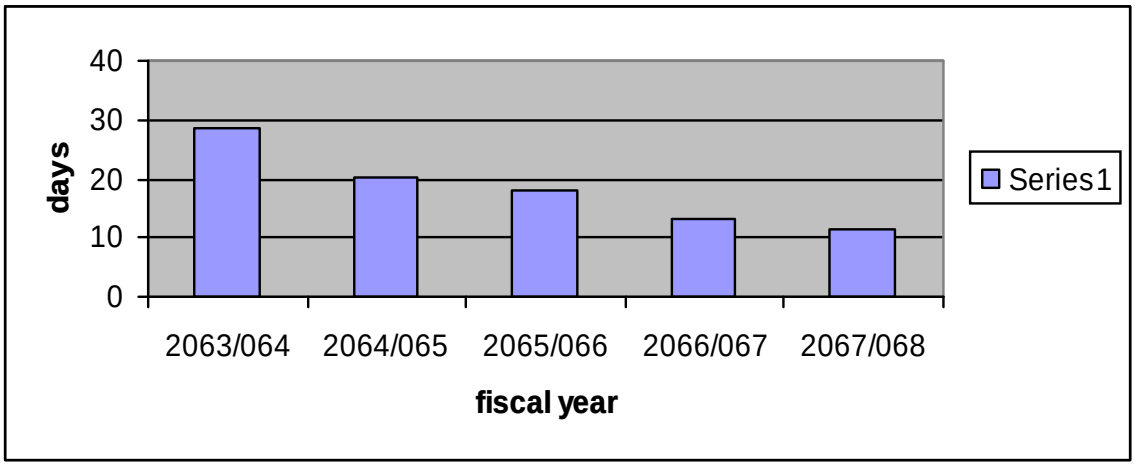


Figure 4.20 presents the inventory conversion period of Nepal Telecom. It shows that the ICP was in decreasing trend.

4.6.2 Receivable Conversion Period (RCP)

The receivable conversion period is the average length of time required to convert the firm's receivable into cash. High periods indicate slow collection of receivable and low collection period indicates fast conversion of receivable. RCP can determine the credit policy of the company. Long collection period refers liberal credit policy and the short period refers the strict credit policy. It is also called day's sale outstanding (DSO) and it is calculated by dividing days in year by receivable turnover ratio.

Table 4.25
Receivable Conversion Period (RCP)

Fiscal year	Days in year	Receivable Turnover	RCP (days)
2063/064	365	2.07	176.32
2064/065	365	2.17	168.20
2065/066	365	2.24	162.94
2066/067	365	3.16	115.50
2067/068	365	3.69	98.91
Total			684.71
Mean			136.94

S.D.	19
C.V.	13.87%

Source: Appendix-20

Table 4.25 shows that the receivable conversion period of the five fiscal year of Nepal Telecom. The receivable turnover decreased in every fiscal year of the study period. The receivable conversion period was not consistent over the study period. The highest receivable conversion period was 176.32 days in the fiscal year 2063/064 and the lowest receivable conversion period was 98.91 days in the fiscal year 2067/068. The decreasing trend of RCP indicates that Nepal Telecom is able to collect its debts in short period. The standard deviation and coefficient of variance with respect to receivable conversion period are 19 days and 13.87 % respectively.

Figure 4.21
Receivable Conversion Period (RCP)

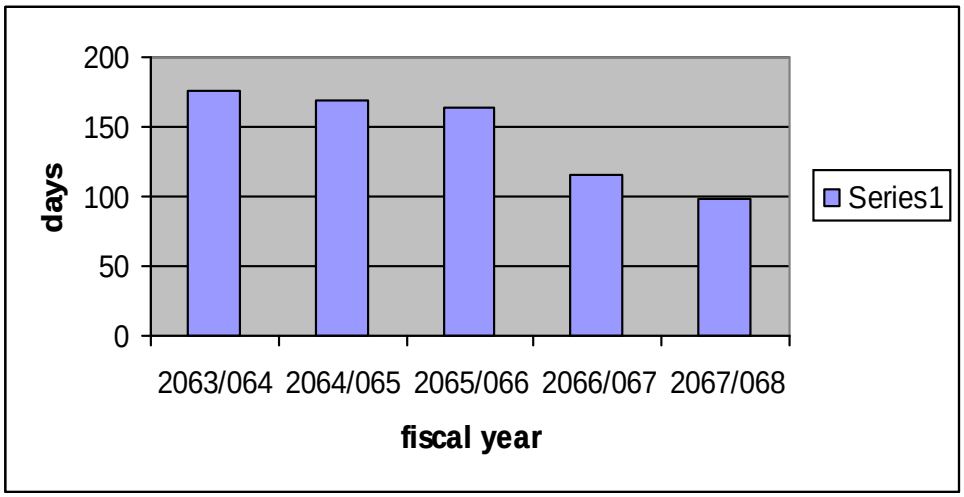


Figure 4.21 presents that the receivable conversion period was not consistent during the study period. The lowest conversion period was in the fiscal year 2067/068.

4.6.3 Payable Deferred Period (PDP)

Payable deferred period measures the period of payment terms to the trade creditor of the company. The long period indicated that the company has got long credit from its creditor

and the short period indicates short credit period. It can be calculated as days in a year divided by creditor payable shown as table below.

Table 4.26
Payable Deferred Period (PDP)

Fiscal year	Days in year	Creditor Payable	PDP (days)
2063/064	365	11.66	31.30
2064/065	365	5.76	63.37
2065/066	365	8.09	45.12
2066/067	365	11.34	32.19
2067/068	365	12.91	28.27
Total		49.76	200.25
Mean		9.952	40.05
S.D.			13
C.V.			32.46%

Source: Appendix-21

Table 4.26 shows that the payable deferred period of the five fiscal year of Nepal Telecom. The creditor payable was not consistent during the study period. The payable deferred period was not stable over the study period. The highest payable deferred period was 63.37 days in the fiscal year 2064/065 and the lowest payable deferred period was 28.27 days in the fiscal year 2067/068. The decreasing trend of PDP shows that Nepal Telecom reduced its payment period from 31.30 to 28.27 days over the study period. The standard deviation and coefficient of variance with respect to payable deferred period are 13 days and 32.46 % respectively.

Figure 4.22
Payable Deferred Period (PDP)

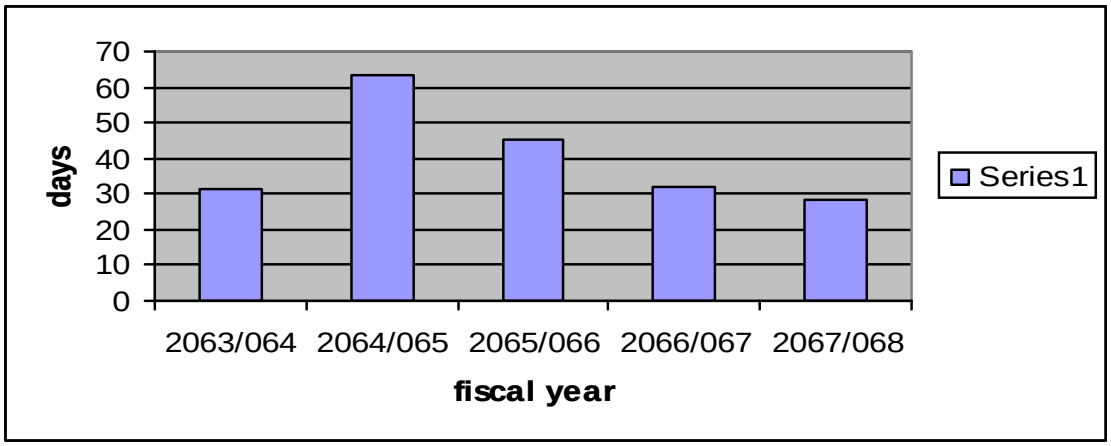


Figure 4.22 percents that the payable deferred period of Nepal Telecom. It was not consistent during the study period. Lowest payable deferred period was in the fiscal year 2067/068005/06.

4.6.4 Calculation of Cash Conversion Cycle (CCC)

It refers the cash inflow and outflow of the company. ICP and RCP are cash inflow and PDF is cash outflow. The CCC is calculated as summation of ICP and RCP and deduct of PDP. The long CCC indicates slow production and slow collection of debtor and taking short credit period and vice versa. The calculation of CCC is shown in the following table.

Table 4.27

Cash Conversion Cycle (CCC)

Fiscal Year	CCC (days)
2063/064	173.64
2064/065	125.13
2065/066	135.93
2066/067	96.48
2067/068	82.18
Total	613.36
Mean	122.672
S.D.	20
C.V.	16.73%

Source: Appendix-22, 23

Table 4.27 shows that the cash conversion cycle of Nepal Telecom for the five fiscal year of the study period. The cash conversion cycle of the Nepal Telecom was in decreasing trend over the study period. The highest cash conversion cycle was 173.64 days in the fiscal year 2063/064 and the lowest CCC was 82.18 days in the fiscal year 2067/068. The decreasing trend of CCC of Nepal Telecom shows that there was high speed of sales, high speed of collection and takes short period of credit. The standard deviation and coefficient of variance with respect to CCC are 20 days and 16.73 % respectively.

Figure 4.23
Cash Conversion Cycle (CCC)

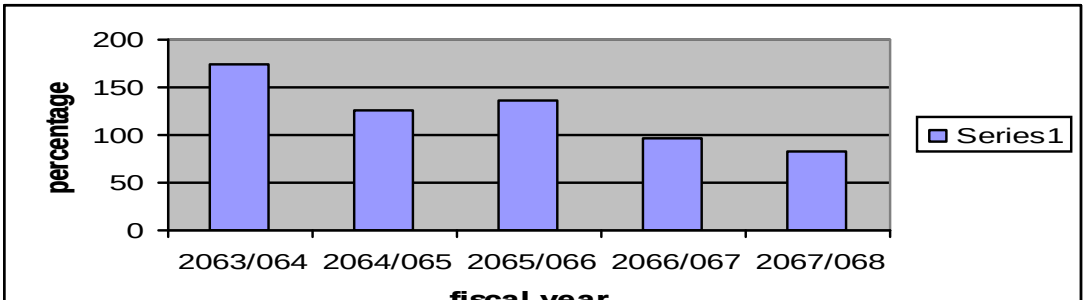


Figure 4.23 presents the cash conversion cycle for the five fiscal year of Nepal Telecom. It was in decreasing trend during the study period.

4.7 Statistical Tools

The financial performance of an organization is directly related to their ability to manage working capital management efficiently and effectively. The use of financial tools has already given an adequate trust showing the analysis of various variables to determine the working capital management. But to make the analysis more rigorous and weighty certain statistical tools have been used to see the relationship between variables provide meaningful implication or not.

Following statistical tools are used to see the relationship between the variables.

1. Correlation Analysis

Correlation is measured as the relationship between one dependent variable and one independent variable. It is useful tools in many ways such as,

- To determine whether the relationship exists or not
- Whether the relationship is significant or not
- Establish cause and effect relation if any

To find out the relationship between current assets and total assets, sales and net profit, current assets and current liabilities, sales and debtors and sales and inventory following correlation are calculated.

i. Relationship between Current Assets and Current Liabilities

Table 4.28

Relationship between Current Assets and Current Liabilities

Correlation of coefficient (r)	Relationship	r^2	P.E. Ratio	6 PE	Significant
0.8268	Positive	0.683598	0.0102	0.0612	Significant

Source: Appendix-24

The correlation between current assets and current liabilities of Nepal Telecom was 0.8268 that is positive relation between them because the value of r is greater than 0 (i.e. 0.8268>0). The table depicts that the coefficient of correlation value is more than 6 P.E. the relationship current assets and current liabilities is significant.

ii. Relationship between Sales and Net Profit

Table 4.29

Relationship between Sales and Net Profit

Correlation of coefficient (r)	Relationship	r^2	P.E. Ratio	6 PE	Significant
0.9588	Positive	0.862669	0.0070	0.0420	Significant

Source: Appendix-25

The correlation between sales and net profit of Nepal Telecom was 0.9588 that is positive relation between them because the value of r is greater than 0 (i.e. 0.9588>0). The table depicts that the coefficient of correlation value is more than 6 P.E. the relationship sales and net profit is significant.

iii. Relationship between Total Assets and Current Assets

Table 4.30

Relationship between Total Assets and Current Assets

Correlation of coefficient (r)	Relationship	r^2	P.E. Ratio	6 PE	Significant/ Insignificant
0.9321	Positive	0.86881	0.0278	0.1668	Significant

Source: Appendix-26

The correlation total assets and current assets of Nepal Telecom was 0.9321 that is positive relation between them because the value of r is greater than 0 (i.e. 0.9321>0). The table depicts that the coefficient of correlation value is more than 6 P.E. the relationship total assets and current assets is significant.

iv. Relationship between Sales and Debtors

Table 4.31

Relationship between Sales and Debtors

Correlation of coefficient (r)	Relationship	r^2	P.E. Ratio	6 PE	Significant/ Insignificant
0.8622	Positive	0.743389	0.1356	0.8136	Insignificant

Source: Appendix-27

The correlation sales and debtors of Nepal Telecom was 0.8622 that is positive relation between them because the value of r is greater than 0 (i.e. 0.8622>0). The table depicts that the coefficient of correlation value is less than 6 P.E. the relationship total assets and current assets is insignificant.

v. Relationship between Sales and Inventory

Table 4.32

Relationship between Sales and Inventory

Correlation of coefficient (r)	Relationship	r^2	P.E. Ratio	6 PE	Significant
0.2561	Positive	0.065587	0.3259	1.9556	Insignificant

Source: Appendix-28

The correlation sales and inventory of Nepal Telecom was 0.2561 that is positive relation between them because the value of r is greater than 0 (i.e. 0.2561>0). The table depicts that the coefficient of correlation value is less than 6 P.E. the relationship sales and inventory is insignificant.

4.8 Major Findings

i. Structure of Working Capital

This section has dealt with the structure or composition of working capital and approximate ratio of cash, inventory and receivables of Nepal Telecom. The observation of the cash and bank to current assets ratio shows that the major portion of current assets is held by cash and bank in Nepal Telecom since the average ratio of cash and bank to current assets is calculated as 53.00%. Since this ratio is too high, it can be stated that the company is facing situations of excess cash and bank balance held idle which is unfavorable for a company. Inventory is another element of working capital which is only stores and spare parts and held a nominal part of current assets since the average inventory turnover ratio is 22.04. This indicates that there is no considerable amount tied up in inventory in Nepal Telecom. Another important element is Account Receivables which represents sundry debtors plus interest accrued on investment. The volume of receivables is fluctuating over the study period.

ii. Efficiency of Working Capital Management

The efficiency of management of working capital is measured through the turnover ratios since the volume of sales in any business organization not only affects the size of working capital but also clearly reflects the efficiency with which assets are managed. The receivables turnover ratios are moderately fluctuating and vary from the lowest 2.34 times and the highest 3.35 times. Likewise, the cash turnover ratio has are moderately fluctuating and vary the lowest 0.51times to 0.89 times during the study period since the rate of increase in the sales volume is lower than that of cash& bank balance. In the three years, cash & bank balance are exceeding net sales by a significant amount. Hence the result is dissatisfactory. The average net working capital turnover is 0.488 times. Since the ratio has decreased from 0.58 times to 0.36 times during the study period, we can say that the company is not utilizing its net working capital effectively. The amount of working capital is exceeding net sales every year. Hence from the analysis, it is revealed that Nepal Telecom has kept excess amount of working capital in comparison to sales which can be considered as the sign of efficient working capital management.

iii. Liquidity Position

Overall, the liquidity position of the firm has been found satisfactory. The current ratio varies from 5.01 times to 5.34 times with a throughout the study period which are however satisfactory compared to the conventional ideal ratio 2:1. Average ratio is 5.14 times and overall, it coincides with the conventionally accepted ratio 2:1. The average quick ratio is 5.042 times which were significantly higher than the standard quick ratio 1:1. Hence it can be said that the company is holding more than enough cash balance or liquid assets to meet their current payment which indicates mismanagement of liquid assets since and optimum liquidity is the necessity of a firm. There is inverse relation between profitability and liquidity since there is negative correlation between liquidity and profitability.

vi. Profitability of Working Capital

Return on total assets is positive and not stable but it has highest 12.55 time to 6.88 times over the five year study period. Average return on total assets is 9.90%. The volume of net profit after tax has increased every year but the return on total assets has fluctuating each year, which signifies that the profitability is not sufficient with compared to the increment in investment in total assets. It clarifies the less effectiveness of utilization of total assets. Another ratio to measure profitability is return on net working capital. From the study, it is found that the return on working capital is continues increased, over the five years. The ratio varies from 15.58 to 24.01%.From the study; it is found that Nepal Telecom has been utilizing its working effectively since the return on working capital is in increasing trend. Both NPAT and investment are increasing every year and the earning power of capital employed is increasing as well.

4.9 Major findings of Statistical Analysis

1. The analysis shows that the correlation coefficient between current assets and current liabilities is fairly positive. There is significant relationship between current assets and current liabilities. There is low degree of positive correlation.

2. Correlation between sales and net profit is fairly positive. There is significant relationship between sales and net profit. It shows significantly low degree of positive correlation.

3. Similarly, correlation between total assets and current assets shows positive relationship between them. It shows that the relationship between total assets and current assets is significant. It shows the relatively moderate level of positive correlation.
4. In some way, correlation between sales and debtors is positive and the correlation coefficient shows the insignificant relationship because the 6 P.E is greater than the correlation value.

5. At last, the correlation between sales and inventory is positive. The correlation coefficient shows the insignificant relationship because the correlation value is less than 6 P.E. There is low degree of correlation in sale and inventory.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

As stated earlier, working capital management refers to the management of cash, receivables, inventory, and other factors of working capital. The main concern of this study was a very sensitive area of financial management i.e. working capital management of Nepal Telecom. Likewise, as stated in the introduction section of this study, the specific objectives of this study are:

- To examine and critically analyze the working capital management of Nepal Telecom.
- To examine liquidity position and profitability position of Nepal Telecom.
- To assess the size and growth of working capital, and
- To recommend viable suggestions to cope up with working capital management shortcomings in Nepal Telecom.

For the purpose of the study, the necessary data on working capital and other related variables were collected form secondary sources. The balance sheet and income statement for the period 2063/064 to 2067/068 was taken from annual report of Nepal Telecom, 2007 to 2068. Various important financial and statistical tools and techniques were applied to analyze the available data. After the tabulation of available data in a systematic manner, various important financial and statistical tools and techniques were applied in order to accomplish the objective of the study.

The size and structure of working capital is analyzed by comparing current assets and its components with different related variables. Activity and profitability ratios were calculated to evaluate the efficient of working capital. Liquidity position was assessed by calculating

different liquidity ratios like current ratio, quick ratio etc. the growth trend of working capital and its related variables were studied in trend analysis. An analysis of sources and used of fund was carried out in order to get better insight into the acquisition and application of fund. More than 50% of total assets were held in the form of current assets. The large portion of current assets was being unproductive by lying in absolute liquid from i.e. cash and bank since half of the current assets was in the form of cash and bank. More than one fifth of current assets were in the form of account receivables. Most of the components of working capital were found to be in increasing trend. The company collected fund mainly from its operation. A large portion of fund was kept in liquid form and some of them were used to purchase fixed assets and to pay long term loan.

Hence, an effort has been made in this chapter to present major findings of the study. Thereafter, in the same pattern, recommendations have been stated. Likewise, conclusions have been drawn at the end of the chapter.

5.2 Conclusion

Conclusively, it can be stated that the overall financial management of Nepal Telecom is quite satisfactory during the study period since it has sound liquidity position and positive growing profitability. Most of the variables or working capital is in increasing trend and the company is operating with good profit. After a long analysis process, it is concluded that the overall financial management of Nepal Telecom was quite satisfactory during the five years study period. There was sufficient amount of current assets to meet the current obligations of the company which obviously is a sign of good liquidity position. The company had invested its considerable amount in current assets by increasing the investment on every fiscal year. Relatively large amount of current assets was held to support given level of sales. The firm had sufficient amount of working capital. Beside this, the researcher has also indicated some critical aspects of working capital management and has supplemented precise suggestions and recommendation too. The company had more resources available to increase the sales volume as per the demand of the market. The largest portion of current assets was being unproductive by lying in absolute liquid from which is the indication of inefficiency of

management in using its assets in productive payment of current liabilities. A significant amount of receivables was tied up which resulted unnecessary amount held up of working capital. Likewise, a significant amount of current assets was covered by miscellaneous current assets. All the variables of working capital as well as volume of sales were in increasing trend and the company was operating with attractive profit. Being a public utility service provider, Nepal Telecom larger volume of working capital, which indicates, excess liquidity position? The company is facing serious problem on outstanding debt collection. So far cash management and receivable management is concerned, the recommendations suggested above could, to a greater extent, uplift Nepal Telecom cash and receivables management situations.

5.3 Recommendations

Following viable suggestions have been recommended to improve the working capital management efficiency in Nepal Telecom:

1. Maintain Optimum Current Assets Variables and Current Liabilities Every Year

Study showed that besides cash and bank, other variable of current assets and current liabilities also fluctuate moderately. Optimization of this variable is therefore recommended which would maintain a sound liquidity. Nepal Telecom, being a service-oriented organization, does not need so higher liquidity position. Thus it is recommended to stabilize its current ratio near 2:1. It is better for Nepal Telecom to invest such excess amount of current assets in fixed assets to increase its capacity rather than tying up large amount in current assets.

2. Determine Optimum Level of Cash Balance to Hold Every Year Applying Cash Management Techniques

The study also revealed that the large portion of current assets is being unproductive by lying in absolute liquid form in Nepal Telecom. This indicates the inefficiency of management of

cash. The major portion of current assets is held by cash. Therefore, it is recommended to determine the optimum level of cash and bank balance to hold each year. It should invest its excess cash and cash equivalents in short term investments which would earn a return till the funds can be utilized in the firm.

3. **Forecast Current Assets and Current Liabilities Variables with reference to change in Sales and Profit**

One of the shortcomings of Nepal Telecom is that the variables of current assets and current liabilities held under different headings are rather a haphazard guesswork, without any consideration on its impact on sales and profit of the organization. For instance, the current assets turnover ratio is in decline trend since the growth of net sales every year is very low in comparison to current assets which imply very low utilization of current assets. Hence, the suggestion is to plan current assets and current liabilities variables with respect to change in sales and profit.

4. **Collected Debts in Time**

The study revealed the fact that Nepal Telecom fails to collect debt in time. Among the total receivables of Nepal Telecom, the largest portion is held by sundry debtors which is nothing other than due amount on sale of service. Therefore, the recommendation is to collect debts in time to enhance liquidity position,

5. Use Extensively Financial and Statistical Tools as per required

Extensive knowledge and use of financial tools can enhance the situation of the organization. Likewise, use of statistical tools for forecasting purpose may be used wherever applicable.

6. **The Financial Experts should assess the Financial Performance Timely in Order to Evaluate the Financial Strengths and Weaknesses**

In order to maximize the sales and minimize the operating cost, long/mid planning and control system of account should be prepared and it can utilize its full installed capacity of fixed assets which also helps to improve the turnover position. It is recommended to carry out periodic research work on marked possibility, consumer's capacity, and service reliability.

7. Maintain Optimum Level of Working Capital

From the analysis, it is revealed that Nepal Telecom has kept excess amount of working capital in comparison to sales since the amount of working capital is exceeding net sales every year. This cannot be considered as the sign of efficient working capital management. Hence it is recommended to Nepal Telecom to maintain optimum level of working capital.

8. Manage Optimum Liquidity in the Firm

The study revealed that the Nepal Telecom holding more enough liquid assets to meet their current payment which indicates mismanagement of liquid assets since an optimum liquidity is the necessity of a firm. There is inverse relation between profitability and liquidity since there is negative correlation between liquidity and profitability. Hence, it is recommended Nepal Telecom to maintain optimum liquid assets.

BIBLIOGRAPHY

Brigham, Eugene F. and Houston, Joel F. (2001). *Fundamentals of Financial Management. (9th Edition).* New Delhi: Harcourt Asia Collage Publishers.

Gitman, Lawrence (1988). *Principles of Managerial Finance.* New York: Harper and Row Publishers Inc.

Gupta, S. C. (1992). *Statistical Methods.* New Delhi: S. Chand Publishers.

Gupta, S.C. (1992). *Fundamentals of Statistics.* New Delhi: Himalayan Publishing House.

Hampton, John J. (1986). *Financial Decision Making* New Delhi*:* Prentice Hall India.

Howard, Leslie R. (1971).*Working Capital : Its Management and Control.* London: Mac Donald and Evans Ltd.

Jain S. P & Narang, K.L. (1989). *Financial Management Accounting.* New Delhi: Kalyani Publishers.

Joshi, Shyam (2001). *Economic Policy Analysis.* Kathmandu: Taleju Prakshan.

Khan, M.Y. and Jain P.K. (1992). *Financial Management: Text and Problem. (3rd Edition).* New Delhi: Tata McGraw Hill Publishing Company Ltd.

Khan, M.Y., and Jain, P.K. (1992). *Financial Management: Text and Problem. (2nd Edition).* New Delhi: Tata McGraw Hill Publishing Company Ltd.

Nepal Telecom Company Ltd, Annual Report 2067/2068

Shrestha, Sunity & Silwal, Dhurba Pd. (2002). *Statistical Methods in Management.* Kathmandu: Taleju Parkashan.

Websites

www.nepalstock.com

www.nrb.org.np

www.ntc.net.np

Appendix-1

Standard Deviation and CV of GWC or CA to TA Ratio

Fiscal Year	Ratio =X	$(X-\overline{X})$	$(X-\overline{X})^2$
2063/064	68.99	0.36	0.13
2064/065	64.92	1.33	1.77
2065/066	71.22	3.79	14.36
2066/067	50.20	-2.40	5.76
2067/068	39.96	-3.06	9.36
Total	295.31		31.38
Mean	59.06		

$$\sigma = \sqrt{\frac{\sum (X - \overline{X})2}{N}}$$

$$= \sqrt{\frac{31.38}{5}}$$

$$=2.51$$

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

$$= \frac{2.51}{60.30} \times 100\%$$

$$=4.16\%$$

Appendix-2

Standard Deviation and C.V. of NWC to TA Ratio

Fiscal Year	Ratio =X	(X- $\overline{X}$)	(X- $\overline{X}$)²
2063/064	50.80	0.45	0.20
2064/065	50.34	0.77	0.59
2065/066	53.64	2.99	8.94
2066/067	44.49	-1.51	2.28
2067/068	41.96	-2.70	7.29
Total	241.26		19.30
Mean	48.25		

$$\sigma = \sqrt{\frac{\sum(X - \overline{X})2}{N}}$$

$$= \sqrt{\frac{19.30}{5}}$$

$$= 1.96$$

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

$$= \frac{1.96}{48.57} \times 100\%$$

$$= 4.04\%$$

Appendix-3

Standard Deviation and C.V. of NWC to FA Ratio

Fiscal Year	Ratio =X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	176.75	-10.58	111.94
2064/065	189.23	2.11	4.45
2065/066	207.02	27.90	778.41
2066/067	185.40	-6.60	43.56
2067/068	164.15	-12.83	164.61
Total	922.56		1102.97
Mean	184.51		

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

$$= \sqrt{\frac{1102.97}{5}}$$

$$= 14.85$$

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

$$= \frac{14.85}{191.76} \times 100\%$$

$$= 7.74\%$$

Appendix-4

Standard Deviation and C.V. of Cash & Bank Balance to CA Ratio

Fiscal Year	Ratio =X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	62.43	0.78	0.61
2064/065	66.72	1.91	3.65
2065/066	65.75	3.38	11.42
2066/067	64.40	-6.47	41.86
2067/068	55.19	0.4	0.16
Total	314.52		57.70
Mean	62.90		

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

$$= \sqrt{\frac{57.70}{5}}$$

$$= 3.40$$

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

$$= \frac{3.40}{53.00} \times 100\%$$

$$= 6.42\%$$

Appendix-5

Standard Deviation and C.V. of Debtors to CA Ratio

Fiscal Year	Ratio =X	$(X- \overline{X})$	$(X- \overline{X})^2$
2063/064	14.63	1.59	2.53
2064/065	13.72	1.95	3.80
2065/066	12.98	-2.03	4.12
2066/067	12.80	-0.78	0.61
2067/068	12.85	-0.74	0.55
Total	66.99		11.61
Mean	13.39		

$$\sigma = \sqrt{\frac{\sum (X - \overline{X})^2}{N}}$$

$$= \sqrt{\frac{11.61}{5}}$$

$$= 1.52$$

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

$$= \frac{1.52}{14.50} \times 100\%$$

$$= 10.48\%$$

Appendix-7

Standard Deviation and C.V. of Current Ratio

Fiscal Year	Ratio =X	$(X- \bar{X})$	$(X- \bar{X})^2$
2063/064	5.56	0.07	0.0049
2064/065	5.02	-0.13	0.0169
2065/066	5.54	-0.03	0.0009
2066/067	5.1	0.20	0.0400
2067/068	5.0	-0.11	0.0121
Total	26.33		0.0748
Mean	5.26		

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

$$= \sqrt{\frac{0.0748}{5}}$$

$$= 0.12$$

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

$$= \frac{0.12}{5.14} \times 100\%$$

$$= 2.33\%$$

Appendix-8

Standard Deviation and C.V. of Quick Ratio

Fiscal Year	Ratio =X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	5.15	0.008	0.000060
2064/065	5.03	-0.142	0.020100
2065/066	5.13	-0.002	0.000004
2066/067	5.14	0.218	0.047520
2067/068	4.97	-0.082	0.006724
Total	25.43		0.074408
Mean	5.09		

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

$$= \sqrt{\frac{0.074408}{5}}$$

$$= 0.12$$

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

$$= \frac{0.12}{5.042} \times 100\%$$

$$= 2.38\%$$

Appendix-9

Standard Deviation and C.V. of Inventory Turnover Ratio

Fiscal Year	Ratio =X	$(X- \bar{X})$	$(X- \bar{X})^2$
2063/064	12.75	-9.26	86.30
2064/065	17.98	-4.06	16.48
2065/066	20.15	-1.89	3.57
2066/067	27.70	5.66	32.04
2067/068	31.62	9.58	91.78
Total	110.2		230.17
Mean	22.04		

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

$$= \sqrt{\frac{230.17}{5}}$$

$$= 6.78$$

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

$$= \frac{6.78}{22.04} \times 100\%$$

$$= 30.76\%$$

Appendix-10

Standard Deviation and C.V. of Debtors/Receivable Turnover Ratio

Fiscal Year	Ratio =X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	2.07	-0.22	0.0484
2064/065	2.17	-0.34	0.1156
2065/066	2.24	-0.38	0.1444
2066/067	3.16	0.31	0.0961
2067/068	3.69	0.63	0.3969
Total	13.60		0.8014
Mean	2.72		

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

$$= \sqrt{\frac{0.8014}{5}}$$

$$= 0.40$$

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

$$= \frac{0.40}{2.72} \times 100\%$$

$$= 14.71\%$$

Appendix-11

Standard Deviation and C.V. of Current Assets Turnover Ratio

Fiscal Year	Ratio =X	$(X- \bar{X})$	$(X- \bar{X})^2$
2063/064	0.30	0.008	0.000064
2064/065	0.30	-0.002	0.000004
2065/066	0.29	-0.102	0.010404
2066/067	0.40	0.028	0.000784
2067/068	0.47	0.068	0.004624
Total	1.77		0.01588
Mean	0.35		

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

$$= \sqrt{\frac{0.01588}{5}}$$

$$= 0.056$$

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

$$= \frac{0.056}{0.39} \times 100\%$$

$$= 14.45\%$$

Appendix-12

Standard Deviation and C.V. of Cash Turnover Ratio

Fiscal Year	Ratio =X	$(X- \bar{X})$	$(X- \bar{X})^2$
2063/064	0.48	0.004	0.000016
2064/065	0.44	-0.036	0.001296
2065/066	0.43	-0.236	0.055696
2066/067	0.62	0.144	0.020736
2067/068	0.85	0.124	0.015376
Total	2.86		0.093000
Mean	0.57		

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

$$= \sqrt{\frac{0.093000}{5}}$$

$$= 0.14$$

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

$$= \frac{0.14}{0.746} \times 100\%$$

$$= 18.29\%$$

Appendix-13

Standard Deviation and C.V. of Net Working Capital Turnover Ratio

Fiscal Year	Ratio =X	$(X- \bar{X})$	$(X- \bar{X})^2$
2063/064	0.41	0.012	0.000144
2064/065	0.39	0.002	0.000004
2065/066	0.38	-0.128	0.016384
2066/067	0.45	0.022	0.000484
2067/068	0.51	0.092	0.008486
Total	2.15		0.025000
Mean	0.43		

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

$$= \sqrt{\frac{0.025000}{5}}$$

$$= 0.071$$

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

$$= \frac{0.071}{0.488} \times 100\%$$

$$= 14.63\%$$

Appendix-14

Standard Deviation and C.V. of Net Profit Margin Ratio

Fiscal Year	Ratio =X	$(X- \bar{X})$	$(X- \bar{X})^2$
2063/064	41.45	-1.652	2.729
2064/065	42.83	1.118	1.249
2065/066	40.23	-4.702	22.108
2066/067	40.80	-0.452	0.204
2067/068	46.73	5.688	32.353
Total	42.79		58.643
Mean	42.79		

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

$$= \sqrt{\frac{58.643}{5}}$$

$$= 3.42$$

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

$$= \frac{3.42}{41.72} \times 100\%$$

$$= 8.21\%$$

Appendix-15

Standard Deviation and C.V. of Operating Ratio

Fiscal Year	Ratio =X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	52.18	3.16	9.96
2064/065	49.61	0.22	0.05
2065/066	54.61	5.12	26.28
2066/067	49.85	0.40	0.16
2067/068	47.28	-8.90	79.28
Total	253.56		115.93
Mean	50.71		

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

$$= \sqrt{\frac{115.93}{5}}$$

$$=4.82$$

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

$$= \frac{4.82}{49.38} \times 100\%$$

$$=9.75\%$$

Appendix-16

Standard Deviation and C.V. of Return on Total Assets

Fiscal Year	Ratio =X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	8.66	-0.13	0.0169
2064/065	8.30	0.44	0.1936
2065/066	8.36	-3.02	9.1204
2066/067	8.29	0.06	0.0036
2067/068	8.86	2.65	7.0225
Total	42.47		16.3570
Mean	8.49		

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

$$= \sqrt{\frac{16.3570}{5}}$$

$$= 1.81$$

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

$$= \frac{1.81}{9.89} \times 100\%$$

$$= 18.35\%$$

Appendix-17

Standard Deviation and C.V. of Return on Net Worth

Fiscal Year	Ratio =X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	14.89	-1.236	1.52769
2064/065	15.04	0.004	0.00002
2065/066	10.55	-4.986	24.86002
2066/067	16.38	1.194	1.42563
2067/068	18.88	5.024	25.24058
Total	75.76		53.05394
Mean	15.15		

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

$$= \sqrt{\frac{53.05394}{5}}$$

$$= 3.257$$

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

$$= \frac{3.257}{15.81} \times 100\%$$

$$= 20.596\%$$

Appendix-18

Standard Deviation and C.V. of Return on Working Capital

Fiscal Year	Ratio =X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	17.06	-0.632	0.399
2064/065	16.46	0.398	0.158
2065/066	15.58	-7.192	51.725
2066/067	18.63	0.618	0.382
2067/068	24.01	6.808	46.349
Total	91.77		99.013
Mean	18.35		

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

$$= \sqrt{\frac{99.013}{5}}$$

$$= 4.45$$

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

$$= \frac{4.45}{20.452} \times 100\%$$

$$= 21.76\%$$

Appendix-19

Standard Deviation and C.V. of

Inventory Conversion Period

Fiscal Year	ICP=X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	28.62	10.31	106.29621
2064/065	20.30	1.94	3.7636
2065/066	18.11	-0.25	0.0625
2066/067	13.17	-5.18	26.8324
2067/068	11.54	-6.82	46.5124
Total	91.80		183.47
Mean	18.36		

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

$$= \sqrt{\frac{183.47}{5}}$$

$$= 6.06 \approx 6 \text{ days}$$

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

$$= \frac{6}{18.36} \times 100\%$$

$$= 32.68\%$$

Appendix-20

Standard Deviation and C.V. of

Receivable Conversion Period

Fiscal Year	ICP=X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	176.32	9.058	82.047
2064/065	168.20	16.418	269.551
2065/066	162.94	19.708	388.405
2066/067	115.50	-16.872	284.664
2067/068	98.91	-28.312	801.569
Total	684.71		1826.236
Mean	136.94		

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

$$= \sqrt{\frac{1826.236}{5}}$$

$$= 19.11 \approx 19 \text{ days}$$

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

$$= \frac{19}{136.942} \times 100\%$$

$$= 13.87\%$$

Appendix-21

Standard Deviation and C.V. of

Payable Deferred Period

Fiscal Year	PDP=X	$(X-\bar{X})$	$(X-\bar{X})^2$
2063/064	31.30	-8.75	76.5625
2064/065	63.37	23.32	543.8224
2065/066	45.12	5.07	25.7049
2066/067	32.19	-7.86	61.7796
2067/068	28.27	-11.78	138.7684
Total	200.25		846.6378
Mean	40.05		

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

$$= \sqrt{\frac{846.6378}{5}}$$

$$= 13.01 \approx 13 \text{ days}$$

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

$$= \frac{13}{40.05} \times 100\%$$

$$= 32.46\%$$

Appendix-22

Calculation of CCC

Fiscal Year	2063/064	2064/065	2065/066	2066/067	2067/068
ICP	28.67	20.30	18.11	13.18	11.54
Add: RCP	146.00	153.36	156.65	120.07	108.63
Less: PDP	31.30	63.37	45.12	32.19	28.27
CCC	143.37	131.83	129.64	101.06	91.90

Appendix-23

Standard Deviation and C.V. of Cash Conversion Cycle

Fiscal Year	CCC=X	$(X- \overline{X})$	$(X- \overline{X})^2$
2063/064	143.37	23.81	566.9161
2064/065	131.83	12.27	150.5529
2065/066	129.64	10.08	101.6064
2066/067	101.06	-18.50	342.2500
2067/068	91.90	-27.66	765.0756
Total	597.81		1926.401
Mean	119.56		

$$\sigma = \sqrt{\frac{\sum (X - \overline{X})^2}{N}}$$

$$= \sqrt{\frac{1926.401}{5}}$$

$$= 19.63 \approx 20 \text{ days}$$

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

$$= \frac{20}{119.56} \times 100\%$$

$$= 16.73\%$$

Appendix-24

Relationship between Current Assets and Current Liabilities

(In million)

Fiscal Year	Current Assets (X)	Current Liabilities (Y)	X= (X-$\overline{X}$)	Y= (Y-$\overline{Y}$)	(X-$\overline{X}$)²	(Y-$\overline{Y}$)²	XY
2063/064	15.33	29.43	-4.22	-8.65	17.81	74.82	36.50
2064/065	18.42	36.75	-1.14	-1.33	1.30	1.77	1.52
2065/066	20.92	40.90	1.37	2.81	1.88	7.90	3.85
2066/067	20.59	38.58	1.03	0.50	1.06	0.25	0.52
2067/068	22.52	44.75	2.96	6.67	8.76	44.49	19.74
Total	97.75	190.41			$\sum(X-\overline{X})^2$ = 30.81	$\sum(Y-\overline{Y})^2$ =1 29.23	$\sum(XY)$ =62.13

Correlation Coefficient r = $\frac{\sum XY}{\sqrt{\sum X^2 \sum Y^2}}$ = $\frac{62.13}{\sqrt{30.81 \times 129.23}}$ = 0.8268

P.E. = $0.7645\frac{1-r^2}{\sqrt{n}}$ = $0.7645\frac{1-0.9846^2}{\sqrt{5}}$ = 0.0102

6 P.E. = 0.0612

Appendix-25

Relationship between Sales and Net Profit

(In million)

Fiscal year	**Sales (X)**	**Net Profit (Y)**	**X= (X-$\bar{X}$)**	**Y= (Y-$\bar{Y}$)**	**$X^2 = (X-\bar{X})^2$**	**$Y^2 = (Y-\bar{Y})^2$**	**XY**
2063/064	61.59	24.67	-15.28	-7.88	233.48	62.09	120.41
2064/065	72.08	30.87	-4.78	-1.69	22.85	2.86	8.08
2065/066	60.70	22.47	-16.17	-10.09	261.47	101.81	163.16
2066/067	85.84	35.42	8.97	2.86	80.46	8.18	25.65
2067/068	104.13	49.36	27.26	16.80	743.11	282.24	457.97
	384.34	162.79			$\sum(X-\bar{X})^2$ = 341.37	$\sum(Y-\bar{Y})^2$ =457.18	$\sum(XY)$ =775.27
Mean	76.86	32.55					

Correlation Coefficient r = $\frac{\sum XY}{\sqrt{\sum X^2 \sum Y^2}}$ = $\frac{775.27}{\sqrt{1341.37 \times 457.18}}$ = 0.9588

P.E. = $0.7645\frac{1-r^2}{\sqrt{n}} = 0.7645\frac{1-0.9899^2}{\sqrt{5}}$ = 0.0070

6 P.E. = 0.0420

Appendix-26

Relationship between Total Assets and Current Assets

(In Million)

Fiscal year	Total Assets	Current Assets	X= (X- $\bar{X}$)	Y= (Y- $\bar{Y}$)	$X^2 = (X-\bar{X})^2$	$Y^2 = (Y-\bar{Y})^2$	XY
2063/064	25.28	15.33	-7.30	-4.22	53.29	17.81	30.81
2064/065	29.89	18.42	-2.69	-1.13	7.24	1.28	3.04
2065/066	32.65	20.92	0.07	1.36	0.01	1.85	0.10
2066/067	35.57	20.59	2.99	1.03	8.94	1.06	3.08
2067/068	39.51	22.52	6.93	2.96	48.02	8.76	20.51
	162.90	97.78			$\sum(X-\bar{X})^2$ =117.5	$\sum(Y-\bar{Y})^2$ =30.76	$\sum(XY)$ =57.54
Mean	32.58	19.55					

Correlation Coefficient r = $\frac{\sum XY}{\sqrt{\sum X^2 \sum Y^2}} = \frac{57.54}{\sqrt{117.5 \times 30.76}}$ = 0.9321

P.E. = $0.7645\frac{1-r^2}{\sqrt{n}} = 0.7645\frac{1-0.9571^2}{\sqrt{5}}$ = 0.0278

6 P.E. = 0.1668

Appendix-27

Relationship between Sales and Debtors

(In Lakh)

Fiscal year	**Sales (X)**	**Debtors**	**X= (X- $\bar{X}$)**	**Y= (Y- $\bar{Y}$)**	**$X^2 = (X-\bar{X})^2$**	**$Y^2 = (Y-\bar{Y})^2$**	**XY**
2063/064	61.59	24.68	-15.28	-3.38	233.48	11.42	51.65
2064/065	72.08	30.30	-4.78	2.23	22.85	4.97	-10.66
2065/066	60.70	26.10	-16.17	-1.96	261.47	3.84	31.69
2066/067	85.84	28.25	8.97	0.18	80.46	0.03	1.61
2067/068	104.13	30.99	27.26	2.93	743.11	8.58	79.87
	384.34	140.32			$\sum(X-\bar{X})^2$ = 1341.37	$\sum(Y-\bar{Y})^2$ =28.79	$\sum(XY)$ =151.16
Mean	76.86	28.06					

Correlation Coefficient r = $\frac{\sum XY}{\sqrt{\sum X^2 \sum Y^2}}$ = $\frac{151.16}{\sqrt{1341.37 \times 28.79}}$ = 0.8622

P.E. = $0.7645\frac{1-r^2}{\sqrt{n}} = 0.7645\frac{1-0.7692^2}{\sqrt{5}}$ = 0.1356

6 P.E. = 0.8136

Appendix-28

Relationship between Sales and Inventory

(In Lakh)

Fiscal year	Sales (X)	Inventory	X= (X- $\overline{X}$)	Y= (Y- $\overline{Y}$)	$X^2 = (X-\overline{X})^2$	$Y^2 = (Y-\overline{Y})^2$	XY
2063/064	61.59	4.83	-15.28	1.18	233.48	1.39	18.03
2064/065	72.08	4.00	-4.78	0.35	22.85	0.12	-1.67
2065/066	60.70	3.01	-16.17	-0.63	261.47	0.40	10.19
2066/067	85.84	3.09	8.97	-0.55	80.46	0.30	-4.93
2067/068	104.13	3.29	27.26	-0.35	743.11	0.12	-9.54
	384.34	18.22			$\sum(X-\overline{X})^2$ = 1341.37	$\sum(Y-\overline{Y})^2$ =2.33	$\sum(XY)$ =12.08
Mean	76.86	3.64					

Correlation Coefficient r = $\frac{\sum XY}{\sqrt{\sum X^2 \sum Y^2}}$ = $\frac{12.08}{\sqrt{1341.37 \times 2.33}}$ = 0.2561

P.E. = $0.7645\frac{1-r^2}{\sqrt{n}} = 0.7645\frac{1-0.2161^2}{\sqrt{5}}$ = 0.3259

6 P.E. = 1.9556

Appendix -29

Consolidated Balance Sheet of Nepal Telecom

In Thousands of Nepalese Rupees

Assets B.S.	FY2063/064	FY2064/065	2065/066	2066/067	2067/068
Fixed Assets	9,840,397	9,907,614	10,064,206	16,040,917	17,088,427
Capital W-I-P	1,857,819	1,922,705	1,734,251	2452578	2,443,061
Investments	1,080,816	1,770,166	2,183,883	3338734	4156948
Current Assets, Loans & Advances	28706958	28324596	33362724	40361211	39126068
Deferred Expenses	166,166	168,361	144,808	142,190	136,448
Total	**34234180**	**37241988**	**38837295**	**66835844**	**76021558**
Capital & Liabilities					
Equity Capital	2,053,864	2,053,864	2,053,864	15,000,000	15,000,000
Reserve & Surplus	14,873,550	17,468,002	18,703,236	5,825,855	8,686,027
Current Liabilities	4,243,376	4,775,412	4,990,353	6,458,484	6,075,753
Provisions	5,111,044	6,461,935	7,805,334	10,864,194	11,189,626
Total	**25,281,824**	**29,892,993**	**32,652,787**	**35,572,772**	**39,351,406**

Appendix - 30

Income & Expenditure of Nepal Telecom

In Thousands of Nepalese Rupees

Income / B.S.	FY2063/064	FY2064/065	2065/066	2066/067	2067/068
Operating	6,159,520	7,208,087	6,070,423	8,584,144	10,413,655
Non-operating	396,472	461,197	334,192	610,153	645,260
Total Income	14751624	17889310	22257714	27221068	29849161
Expenditure					
Total Operating Expenses	3,735,929	3,576,165	4,408,767	6,772,768	6,815,188
Net Profit Before Tax	3,320,063	4,093,119	3,095,848	4,921,529	6,843,727
Net Profit After Tax	2,967,930	3087782	3247301	5,542,461	6,736,647
Net Profit After Dividend & S.Fund	1,972,550	2,588,223	1,230,092	3,230,469	3,904,307
Retained Earnings Transferred to Balance Sheet	**14,639,473**	**17,227,695**	**18,457,787**	**5,665,407**	**8,602,369**