# CASH MANAGEMENT OF PUBLIC ENTERPRISES IN NEPAL
(A Case Study of Nepal Telecom LTD.)

A THESIS

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RECOMMENDATION

This is to certify that the thesis submitted by

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has been prepared as approval by this department in the prescribed format of Faculty of management. This is forward for examination.

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DECLEARATION

I hereby declare that the thesis entitled "**Cash management in Public Enterprise of Nepal"** (A case Study of Nepal Telecom Limited) submitted to Shankar Dev campus putalisadak kathmandu. It is my original work done for the partial fulfillment of the requirement for master of business studies (M.B.S.) under the supervision and guidance of **Mr. Joginder goet & Prof. Dr. Kamal Deep Dhakal** Shankar Dev Campus Putalisadak, Kathmandu .

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ABBREVIATION

A/R	:	Account Receivable
ACP	:	Average Collection Period
Adm. Expenses	:	Administrative Expenses
B.S.	:	Bikram Sambat
B/S	:	Balance Sheet
C&B	:	Cash and Bank
C.A.	:	Current Assets
C.L	:	Current Liabilities
C.R.	:	Current Ratio
C.V.	:	Coefficient of Variation
F/Y	:	Fiscal Year
GDP	:	Gross Domestic Product
GN	:	Government of Nepal
Govt. of Nepal	:	Government of Nepal
i.e.	:	That is
ICP	:	Inventory Conversion Period
MBS	:	Master of Business Studies
MIS	:	Management Information System
NTCL	:	Nepal Telecom Ltd.
P.E.	:	Probable Error
P/L	:	Profit and Loss
P/L A/C	:	Profit and Los Account
PEs	:	Public Enterprises
Ph.D.	:	Doctor of Philosophy
RCP	:	Receivable Conversion Period
Rs.	:	Rupees
S.D	:	Standard Deviation
S.N.	:	Serial Number
STCL	:	Salt Trading Corporation Limited
T.A.	:	Total Assets
T.U.	:	Tribhuvan University

CHAPTER - I
INTRODUCTION

1.1 General Background

Nepal is bordered between the two most populous countries of the world India in the east, south and west and China in the worth Nepal is one of the least developed countries in the world lying as sandwiched between the two big countries, China and India. Poverty is widespread and necessities of many have not been fulfilled. The annual per capita GDP of Nepal is estimated to be just $388 by ADB (Nepal in figure; 2008). Economic growth of the country has not improved substantially over time to overtake population growth.

Low economic growth rate, growing unemployment and poverty etc. are main problems of the country. These problems can be reduced through mobilizing all kinds of available resources. Nepal has adopted mixed economy to develop nation through participation of both private as well as public sector.

Nepalese main source of income is agriculture sector. More than 80% of the total population depends on the agriculture sector. Economic development of the country is easy through development of this agriculture sector (Ghimire, 2004; 187).

Most of people are living in the rural areas and are below the line of poverty. Though agriculture is main stay of Nepalese economy, only this sector is handicapped, so the nation should also emphasize other industrial and commercial areas.

Like other developing countries in the world, the government of Nepal has also taken public enterprises as a means of economic development of the country, after the introduction of first plan in 1956. The rationale behind the

establishment of such enterprises is to carry the programs set in the economic plan for economic development, which makes the country self sufficient ultimately. Due to lack of infrastructure, lack of skilled man power, investment problem, unwillingness to bear the risk of private sector, unbalance development of the country were the reasons behind the emergence of public sector.

1.2 Cash Management

Cash is the life blood of every business organization without cash no business activities can be taken place. There are several issues are involved in the management of this firm's liquidity position. One is to develop efficient system for the management of cash in flow and cash outflow. Efficient cash gathering and disbursal has become a major area of managerial finance so high level corporate executives are involved and so many conceptual issues are raised that important institutional developments in cash management have taken place. Because the developments in this field are so rapid and the literature has become so substantial.

The idea of cash management has not come directly and independently in it's separate entity. Before 1970's cash management was affiliated with the economics. Many more organization of the world were enjoying by making reasonable profit margin and many organization before 1970's period survive without proper management of cash. But by the reason of inflation in 1970's the situation changed and many profitable enterprises were confronted with the problem of liquidity and even faced technical insolvency. The investors once again lost confidences in the credit worthiness of enterprises. As a result rising of funds, through the issue of shares from the present and potential investors become impossible. The liquidity problem also put pressure on the financial institutions making long term loans and forced them to rice to rates of interest very frequently. After 1970 and problem faced by the enterprises cash is considered as a major component of the working capital of the organization and

started to manage cash in the best way then the separate entity of cash management has established. So the cash was came to the separate and independent entity by the 1970's inflation (Bajracharya, 1990).

1.3   Public Enterprises

Public enterprises in Nepal constitute a vital instrument for the socioeconomic development of the country. It enjoys a strategic and crucial position in our mixed economy. "PE's are autonomous bodies which are owned and managed by government and which provide goods or service for a price. The ownership with the government should be 51 percent or more to take an entity PE" (Laxmi Narayan,1972;42). They have been established in many sectors for the overall development of the country with different goals and objectives. Nepal tried to develop public sector institutions after the advent of democracy in the year 1951. The first enterprise to be turned to public sectors was Nepal Bank limited established in 1994 B.S. Nepal started it's planned economic development in 1956 with launching of first five year plan. Since then the number of PE has increased substantially in the various field of Nepalese economy. There were 64 PE's before the privatization program of His Majesty Government at present there are 43 PE's in Nepal. Out of 43, 13 are in industrial sector, 6 are in trading sector, 8 are in service sector, 5 are in social sector, 3 are in public utility sector and 8 are in financial sector. The PE's are dominant in the production of sugar, cement, cigarettes, agriculture tools, petroleum product. Since the establishment of Nepal Telecom Limited, 28 years ago as public enterprises, its responsibility has been to provide reliable and affordable telecommunication service throughout the kingdom. Through it's contribution effort to fulfill this responsibility, NTC's contribution towards the overall socio-economic development of the nation is note worthy.

1.3.1 Introduction of Nepal Telecom Ltd.

Telecommunication is system which facilities conveying information quickly over long distance with a cheap cost. It is also known as one of the quickest, cheapest as well as the most scientific means of communication in modern world. In a developing country like Nepal, the role, importance and contribution of telecommunication in the economic development of country can not be exaggerated as there is no sector where telecommunication has not played role. The effect of telecommunication on the rural areas and their contribution to rural development are potentially extremely important, yet rather difficult to measure.

The history of telecommunication development in Nepal is not long one. The first telecommunication services were started in Nepal during the regime of Chandra Shumser in 1972 B.S. it was the first time and a good opportunity for Nepalese people to transmit message from Kathmandu to Birgunj. This telephone line attributed as magneto connected Birgunj with Kathmandu under the name of "Shree Chandra Telephone". Through no remarkable development has been found, another telephone line connecting in Kathmandu and Gaur had been installed in the year 1980 B.S. In the year 1992 B. S.,25 automatic telephone lines were distributed among the high ranking personalities of Nepal for their own uses. The telecommunication office was first established near Rani-Pokhari, Kathmandu.

Future telecommunication lines were made available during the rule of Prime Minister Juddha Shamser by catering the line in the different districts to the extent of 300 miles long. The telephone lines were being extended from Kathmandu to Siraha, Shaptari while the same being extended up at Hanuman Nagar in 1994 B.S. In the year1998 B.S. additional installation of telephone line linking Dhankuta, dharan and Biratnagar were distributed.

A noticeable change happened toward telecommunication during the period of Juddha Shamser. About 200 miles long telephone line was also bought into use in western part of Nepal. The government of Nepal felt the need of telecommunication for effective administration and active participation of people to achieve national goal. So 200 local C.B. telephone lines were setup and distributed for his Majesty;s Government offices having exchange office at Singh Durbar. In the year 2002 B.S. before implementation of first five year national plan, Nepal 200 C.B. lines, 100 magnet lines, 15 automatic lines, 10 military exchange lines and 600 miles of trunk lines connecting Kathmandu with other districts.

Before the implementation of first five year national plan had wireless relation between 28 centers only in various parts of the country. About 18 of these stations were equipped with modern equipment. The wireless services were made workable by means of petrol generators in different districts 65except Kathmandu and Biratnagar. As the material and machinery required for wireless has been made available during the period of second world-war, a satisfactory service could not be achieved on account of problems faced while transporting the petrol in remote districts.

Nepal telecom ltd. was established on 2032\03\01 B.S. under Nepal telecommunication act 1971 to provide reliable and affordable telecommunication service all over the country. Most rural areas of Nepal are characterized by low population density, long distances between settlement areas and unfavorable geographical and climatic conditions. Other difficulties are low education level, less job opportunities, low per capita income, increasing tendency of population to migrate to urban centers, poor, unreliable or non-existent public transport, irregular or non-existent power supply, poor health care and medical services. The basic objective of the need for providing telecommunication facilities in those rural areas is to trigger the development activities and to minimize above mentioned disadvantage, thereby by improving the quality of life. NTCL is planning to serve rural areas by adopting

various technologies. VSAT shall be deployed in high mountain areas and in those remote areas where other terrestrial system are not feasible or viable. Mid mountain areas and southern plain areas (tearibelt) shall be served by combination of wireless local loop (WLL), VHF/UHF radio communication, small rural exchanges with copper network or other appropriate system.

Nepal telecommunications corporation (NTC) is a wholly government owned public sector entity, administered by a government appointed aboard of Directors which includes a chairman and voting members. The board includes NTC's General Manager who chairs the meeting in the absence of the chairman. A senior officer of NTCL is appointed as a nonvoting secretary. NTC, like other government owned corporations, is subjected to government regulations for investment plan approval, foreign credit access and staffing and staffing and employment conditions. However, more autonomy to the entity may be in the offing in near future which shall be a part of the Government's proposed deregulation and liberalization policy in the telecommunication sector. NTC's general manager is the chief executive officer and is appointed by GOVT. OF NEPAL, not by NTC's Board of Directors.

1.3.2 Services provided by NTCL

NTCL is moving ahead to establish nationwide telecommunication infrastructure, the foundations for it revolution in the country. In view of unprecedented development in the world of information and communication technologies, NTCL is trying it's best to make a quantum leap forward to expand services not only in urban areas but also in the vast rural areas. More efficiency, increased productivity, better consumer services and more professionalism in the management are the key areas where NTCl will be giving top priority in the coming days of competitive environment in the telecom sector. The main services provided by NTCL are as follows.

i) Basic Telephone Services:-

In its continued effort to satisfy the ever growing demand for telephone lines, NTCL has augmenting its telephone exchange line capacity for the best interest of its valued costumers. As per MIS report of Magh 2065, the total installed capacity and distributed telephone line of NTCL has reached the 554566 and 371816, 2060/61 marks respectively. The total capacity includes all the telephone exchanges, Rural exchange spread throughout the country. Recently NTCL has 171 operational exchanges in 72 districts and the service is available in all the 75 districts of Nepal.

All the exchanges of Kathmandu valley are linked by optical fiber SDH network. Outside the valley the exchanges between Bhairahawa-Butwal is also linked by optical fiber network. This shift towards the optical transmission systems has resulted in more reliable network and significantly improved quality of voice and data transmission.

ii) National Trunk Telephone Services:-

The total number of trunk circuits is 50,700. This network enables NTCL to provide telephone service to more then 72 district , metropolitan centers and main towns of the country.

iii) Rural Telecom Services:-

The significance of communication channels such as Public Call Offices (PCOs) in a country where about 85 percent of the people live in the rural areas with very remote and inaccessible terrains cannot be overlooked. NTCL is working vigorously towards achieving the GOVT. OF NEPAL's objective to serve all the VDCs of Nepal with basic telephone lines and is expanding its communications infrastructure is rural areas to connect more VDCs to the national network irrespective of its economical value and law prospects of returns. NTCL now covers about 72 district.

iv) Pay Phone Services:-

Catering to the customer's need who do not own a own telephone line, for easy access to the telephone services anywhere, any time while on the move without having to carry coins to make phone calls. NTCL launched payphone services using smart cards in Kathmandu since 2058 and other parts of the country such as Pokhara, Bharatpur, Nepalgunj and Dhanagadhi later. Today there are altogether 260 payphone sets (201 indoors and 59 outdoor sets) installed in key commercial, business oriented and public service places of the country.

v) GSM mobile services:-

NTCL started GSM cellural mobile services in year 1999 in recent days this service has been expanded to various major cities throughout the country. At present, the total mobile subscribers in the country are reaching a 38,000 landmark. By end of July 2003, GSM cellular mobile coverage has been extended along the highways from Kathmandu to Pokhara, Kathmandu to Bharatpur, Bhairahawa region, Nepalgunj region in the west and to Kakarvitta in the east. Hence, all neighbouring towns along the highway shall also have GSM coverage. Together with the expansion of the coverage area of the mobile services the subscriber capacity has been increased to 50,000 lines for post paid services. 40,000 lines for new services like PPC (Pre-Paid Service) with has been introduced from September 2003. Mobile subscribers continue to avail services such as voice, fax, Data, Voice mail system (VMS), short message services (SMS), National and International services. In fiscal year 2065/66 magh GSM Mobile are 2357790.

vi) Voice, Data and Telegraph Leased Circuits Services:-

NTCL provides voice leased circuit services for voice telecast to the various countries to which NTCL has direct links. NTCL also provides national and international leased circuit services of high speed and low speed for data communication purposes.

vii) Email and Internet Services:-

NTCL has been providing Email and Internet service to its customers in Kathmandu valley since 2000. Internet billing system has been in operation since October 2001. Monthly bills for all mobile telephone subscribers have also been put on the net since January 2002. Number of subscribers utilizing these facilities is on the rise everyday. At present a total of 10441 internet user and 4489 email users have registered to this services.

ix) Inmarsat mini-services:-

Keeping in tune with the fast changing technology trend in the present mobile communications Industry has become a necessity. This being used for commercial, rescue, adventurous and safety applications. NTC's Inmarsat mini-m is a digital, fax and data system which works with very compact terminals.

x) Home Country Direct Dialing Services:-

Foreign visitors in Nepal can directly call their own country's telephone operator by dialing specific access code and book to their home country numbers without need of paying locally. Presently NTCL provides home country direct dialing services to USA, UK, Japan, South- Korea and Singapore.

xi) International Telegraph Services:-

International telegraph service available is quail able to all parts of the world through satellite optical fiber links. Nepal has direct telegraph circuits with India Japan.

xii) International Program TV Services:-

NTCL provides this service for occasional use. This service includes transmission of video message by press correspondent, TV broadcast of major events either records or live on booked basis.

xiii) Telex Services:-

The telex service provided by NTCL is fully automatic. The present new telex exchange was installed in 2001. Telex service operates through satellites circuits and optical links. Nepal has direct telex links with 7 countries- 8 destinations (USA, UK, Germany, Singapore, Japan, Hong Kong, and India-Mumbai and Kolkatta). It provides international telex services to more than 200 countries. Domestic telex services are available in Birgunj, Biratnagar, Bhairahawa, Pokhara, Butwal and Nepalgunj.

xiv) V-SAT and Wll Services:-

NTCL has been providing telecommunication service in various remote and inaccessible parts of the northern mountains region by v-sat equipment. The v-sat service provided by NTCL has altogether 61 stations installed in various parts of the country under the Wll system 67 lines in Nawalparasi, 62 lines in Rupandehi and 15 lines in Kapilvastu district were distributed.

1.3.3 Present Status of NTCL in the telecommunication Sectors

With the present tendency (number of telephone per 100 population) of just 1.3 and more than 60 percent of rural areas without any kind of telecommunication services, the main challenge in telecommunication sector is to fulfill the ever increasing urban demand for telephone lines and at the same time expand telecom infrastructure in vast areas of rural areas. If one looks back at the development scenario of the telecommunication sectors in the past decade, the picture could be considered as reasonably satisfactory. Between 1995 and 1999, annual growth rate in telephone lines in Nepal was 28.8 percent, the third highest in Asia-Pacific region after Srilanka (33.8) and Cambodia (32.1%). The figures were 8.9 percent in Bangladesh, 27 percent in China, 19.8 percent in India, 7.4 percent in Pakistan, 10 percent in Thailand and 26.3 percent in Vietnam. However, with present waiting list of about 2,90,000 applications, for new telephone connections as against 3,25,000

connected main lines, coupled with urban demand for latest high-tech services on one side and rural obligation on the other side, the current and future challenge remain daunting. It now a forgone conclusion that in the modern day world, IT (Information Technology) development is essential for overall economic growth of a country like Nepal and without adequate telecommunication infrastructure, IT development is not possible.

Given Nepal's mountains and Kathmandu valley's separation on from the densely populated areas of the terai region on the south along the border with India, telecommunications service has become a vital element in government administration, trade and industry and the entire socio-economic development of the society. With this realization, GOVT of Nepal has already formulated the new telecommunication Act and Telecom Policy, which has allowed competition with entry of one private operator each in mobile as well as fix telephone service based on wireless local loop. An autonomous regulatory body named Nepal Telecommunication Authority (NTA) is functioning last five years. With more than a dozen ISPs (Internet Services Providers) and V-SAT operators operating with licenses from NTA, IT sector is moving at faster pace and NTCL is the leading role in establishment of telecommunication infrastructure in the entire country including remote rural areas.

1.3.4   Objectives of the NTCL in Tenth National Plan

Since its establishment 28 years back, NTCL is dedicated towards providing reliable and affordable telecommunication services throughout the country as a sole national telecommunications operator of local, mobile, long distance and international telecom services. NTC's role is crucial for the social, economic, cultural development and overall upliftment of the nation. NTCL has 100 percent digitalized network employing the world's latest state-of –art technologies. NTC's vast telecommunications network infrastructure is playing a key role in the fast development of information technology in the country,

aiding its participation in the global economy and ultimately helping in poverty alleviation.

The main objectives or aim of the NTCL in the tenth national plan as follows:-

To attain teledensity (basic fixed telephone lines) of 2.7 (this excludes the possible telephone line addition from private operators) by the end of tenth national plan (expected teledensity at the of ninth national plan is about 1.35)

To provide basic telephone facilities in those VDCs of central, western, mid-western and far-western regions, where there are no telephone facilities at the end of ninth plan. It is to be noted that eastern region is singled out to be served by private operating company as per Nat's directive.

To attain mobile teledensity (number of telephones per 100 population) of 0.6 (this excludes the possible mobile subscribers of private operators) by the end of tenth national plan (expected mobile teledensity at the end of ninth national plan is about 0.1).

To provide basic telephone service within six month of demand by any person or institution anywhere in any part of the country including remote rural areas by the end of tenth national plan.

To create "on- demand" telephone distribution situation (which means connection of new telephone lines within 7 days of application) in all major cities and towns of the country by the end of tenth national plan.

To introduce new services and high technologies to fulfill the demand from urban population, specially to cater trade and industry requirements

To give impetus to IT development in the country by expanding internet network throughout the country.

To establish broadband backbone links in terlinking major cities and towns, which will help the country to move towards "information society"?

1.3.5 NTC Turns into the Company

Nepal telecom Ltd. (NTCL), the country's biggest and the most profitable public enterprises, is turning into a company. The 34 years old NTC, the state-owned telecom operator is known as by new named Nepal Telecom from Ist Baishakh 2061.With the beginning of the new year 2061, the NTCL is converted into a company and the change in name has come to reflect its new status. Its official registration name however, will be Nepal Telecommunication Company Limited. But even after becoming a company, it will continue to run as a government entity units its shares floated by year end.

NTCL is among few state-owned enterprises that had been drawing good returns for years-largely due to monopoly market. The government however, declared to open the telecom sector from the last of 2060. The privatization of the NTCL is taking place in accordance with the government's plan of gradually handing over public enterprises to private hands.

The estimated amount of paid up capital an authorized capital of corporation, mean while, stand at 15 billion and Rs. 25 billion respectively. However the management is yet to decide on the proportion of shares that the Nepal Telecom would issue to general public.

Meanwhile, a seven-member committee has already been constituted that will manage and decide on behalf of Nepal Telecom. The committee has been formed under the chairmanship of the secretary at the ministry of information and communications (MOIC). The other members of the committee include representatives from the NTC, the MOIC, finance ministry, citizenship investment trust and ministry, of law and justice.

It is believed that changing into the company will make NTCL an autonomous entity, giving full authority of decision making on its own. This will certainly enhance its entire function and make NTCL more efficient. The service delivery will be further enhanced with the conversion of NTCL into company limited.

1.4   Focus and Significance of the Study

Cash management is one of the most important part of the business that deals by the management and official staffs of the organization. Cash management deals with the sources and uses of cash in the best way. At the present world for the individual people without cash there is question mark for existence and prosperous in the society. Every human economic activity depends on cash. For the business life its success and failure depends on sufficient availability and proper utilization of cash. To capture the opportunities hovering in the competitive business environment or to avoid the threats in the business path or to implement the business strategy there is required sufficient cash source. Cash is life blood for business life, so it should be managed properly. Cash management deals with finding the sources and utilization of the available sources tactfully. Public enterprises play significant role in the economy of the nation. Nepal telecom is a pioneering organization in the communication sector of nation. The focus of the study is cash management of this organization.

The financial situation of the public enterprises is not encouraging at the present. Many PEs have been either bankrupt or closed due to inefficient of various resources management. Cash management is one of the vital part of the overall organization management. This organization only be benefited in the optimum level of cash balance. Hence, this study is significant to find out cash management techniques being adopted by PEs and then analyze its effectiveness, strength and weakness. This study aims to find out the importance and contribution of cash management in the organization's operations. It helps the management committee of NTCL to know the effect of

cash management in their corporation's profit margin. It is also significant for the other public enterprises and researches. The study is also important for the private sector organizations.

1.5   Statement of the Problem

NTCL is one of the leading public enterprises functioning in public utility sectors. NTCL is one of the basic infrastructures for the development of the nation without it, no industrialization of the economy can be imagined. In this context, NTCL has a great role than other public enterprises as all manufacturing, non- manufacturing industries and government; depends on information supplied by it. In the past, it was a single public enterprise which provides information facilities to the people of Nepal. But nowadays   It is facing marketing competition. There are other private companies like; United Telecom Limited, Spice Nepal, which are playing competitors role in sector of communication. Whatever NTCL is large scale public enterprise of the country and an apex institution in the communication sector.

Most of the public enterprises of Nepal are in a big crisis. Some of them are liquidated, some are privatized some are in the process of privatization. The first privatization policy was introduced in United Kingdom during 1980s and in Nepal it gained momentum after the restoration of multiparty democracy in 1990. At present among PEs of Nepal, NTCL is regarded as one of the few successful corporations. But how long can this prosperity be continued? This question is haunting and daunting to each and every conscious person. The monopoly of NTCL in telecom sector has ended. In this competitive and complex situation, NTCL and all its stables should focus more towards customers.

NTCL is a fully government-owned and government controlled organization. Government is looking toward to privatization of this organization and primary studies are being undertaken. However NTCL has

been victimized indifferent political movements. Many valuable NTCL infrastructures are destroyed during ten years of Maoist insurgency.

The present study intends to analyze and examine the impact of cash management in NTC. Furthermore this study has tried to answer following questions.

- What types of cash management practices has been adopted by NTC?
- What are the revenue generating practices of the NTC?
- What is the situation of financial performance of the NTC?
- What is the impact of cash management on profitability?
- How the cash is mobilized in the NTC?

1.6   Objectives of the Study

The general objective of the study is to examine the cash management techniques adopted by the NTC. The specific objectives this study are as follows:-

- To examine and critically analyze the existing cash management practices in the organization.
- To assess the revenue generation practices of the organization.
- To examine the financial performance of the organization.
- To review the cash mobilization practices of the organization.
- To make suggestions for the effectiveness of cash management in NTC.

1.7   Limitations of the Study

This study is mainly concerned with the cash management of NTC. The following are the main limitations of this study.

- This study considers only those factors which are related to cash management of NTC.
- This study based on secondary data.

) This study covers the period of six years from 2001/02 to 2005/06.

) This study assumes that the impact of political factors of the country such   as change in government does not affect the financial decision.

1.8   Organization of the study

This study has been organized in five chapters. They are:-

1. Introduction

This chapter concerns on the background of the study, focus of the study, significant of the study, statement of the problem, objective of the study, research methodology and limitations of the study.

2. Review of Literature

This chapter deals with review of various books, journal, old dissertation, published and unpublished reports, articles and previous newspapers.

3. Research Methodology

This chapter represents as a form of the tools to collect data, techniques for the study and analysis of data.

4. Data Presentation and Analysis

In this chapter the acquired data are presented and analyzed through the way of designed methodology. Tables and diagrams are also presented to accomplish the research objectives. Major findings of the study are also included in this chapter.

5. Summary, Conclusion and Recommendation

This chapter will deal with the summary, conclusion and recommendations. In the final of this dissertation the bibliography and necessary annex are enclosed.

CHAPTER - II
REVIEW OF LITERATURE

Review of literature refers to the reviewing of the past studies in the concerned field. Such studies could be thesis/dissertations that are written earlier books, articles, journals and or any sort of other publication concerning the subject matter, which were written prior by a person or an organization. The purpose of this literature review is to get acquainted with what has been accomplished in the concerned subject matter and what is yet to be accomplished. In other words it helps to find what actually is to be studied and foretells worthiness of the study being undertaken.

2.1   Conceptual Framework

2.1.1   Meaning of Cash Management

The term "cash" is defined in various ways as per context. From an economist view point, cash is the means to satisfy human wants, whereas a lawyer states that cash is the legal tender of money issued by the government of the state. On the contrary, when it comes to the financial literature, cash is defined in yet another fashion that is totally different from earlier definitions.

The term cash which refers to cash management is used in two senses. In a narrow sense, it is used to cover cash (currency) and generally accepted equivalent of cash such as cheques, drafts and demand deposits in bank. The broader view of cash also includes near cash assets, such as marketable securities and time deposits in banks. The main characteristic of these is that they can be readily sold and converted into cash. They serve as reserve pool of liquidity that provides cash quick when needed. They also provide a short-term investment outlet for excess cash and are also useful for meeting planed outflows of funds. We employ the term cash management in a broader sense.

Irrespective of the form in which it is held, a distinguished feature of cash as an asset is that it has no earning power (Khan and Jain, 1972, 667).

It is cash, which keeps a business going. Hence, every enterprise has to hold necessary cash for its existence. In a business firm ultimately, a transaction results in either an inflow or outflow of cash. In an efficient managed business, static cash balance situation generally does not exist. Adequate supply of cash is necessary to meet the requirement of the business. Its shortage may stop the business operation and may degenerate a firm into a state of technical insolvency and even of liquidation. Though idle cash is sterile; its retention is not without cost. Holding of cash balance has an implicit cost in the form of its opportunity cost. According to J.M.Keyns The highest level of idle cash the greater is the cost of holding it in the manner of loss of interest, which could have been earned either by investing it and securities or by reducing the burden of interest charges by paying off the loans taken previously. If the level of cash balance is more than the desired level with the firm, it shows poor management of funds. Therefore, for its smooth running and maximum profitability, proper and effective cash management in a business is of paramount."

The term 'cash management' is concerned with the management of current assets and current liabilities of the business, which is necessary for day to day operation. "Cash management is concerned with the decision regarding the short-term funds influencing overall profitability and risk involving in the firm. The management of cash has been regarded as one of the conditioning factors in the decision-making issues". (Saksena, 1974 ;31)

Cash is the most liquid asset, is of vital importance to the daily operations of business firm. "Cash is both beginning and end of the working capital cycle: cash, inventories, receivable and cash. Its effective management is the key determinant of efficient working capital management. Cash like the blood stream in the human body gives vitality and strength to a business

enterprise. The steady and healthy circulation of cash through out the entire business operation is the business solvency". (Kent, 1964;128)

2.1.2 Efficiency of Cash Management

Cash use a number of functions as it makes payment possible. It serves to meet emergencies. But if cash is kept idle it contributes directly nothing to the earning of the corporation. As such corporation must adopt a policy that makes optimum cash management possible. The financial manager of the corporation should try to minimize the corporations holding of cash, while still maintaining enough to ensure payment of obligation. For improving the efficiency of cash management effective method of collection and disbursement should be adopted. Some methods for efficiency of cash management are briefly described below. (Shrestha, 1980, 625)

i. Speed collection

One method of optimum cash management is to speed collection from customers. Reducing the lag for gap between the times a customer pays his bill can accelerate cash collection and the time the cheque is collected and funds become available for use. Within this time gap, the delay is caused by the mailing time. The amounts of cheques sent by customers but not yet collected are called deposit float. The greater the deposit float, the longer the time taken in converting cheques into usable funds. There are mainly two techniques, which can be used to save mailing processing time, concentration banking and lock box system.

Concentration Banking

A large firm operating over wide geographical areas can speed up its collections by following a decentralized collection procedure. A decentralized collection procedure, called concentration banking in the USA, is a system of operating through a number of collection centers, instead of a single collection

centre centralized at the firm's head office. The basic purpose of the decentralized collection is to minimize the lag between the mailing time from customers to firm and the time when the firm can make the use of funds. Under decentralized collection, the firm will have a large number of bank accounts operated in the areas where the firm has its branches. All branches may not have the collection centres. The selection of the collection centre will depend upon the volume of billing. The collection centres will be required to collect cheques from customers and deposit in their local bank accounts. The collection centre will transfer funds above some predetermined minimum to a central or concentration bank account, generally at the firms head office, each day a concentration bank is one where the firm has a major account-usually disbursement account. (Pandey, 1999; 775) Funds can be transferred to a central or concentration by wire transfer or telex or fax or electronic mail. Decentralized collection procedure is thus, useful way to reduce float.

Lock-Box System

Another technique of speeding up the mailing, processing and collection times which is quite popular in the USA and European countries is lock- box system. Some foreign banks in India have started providing this service to firms in India. In case of the concentration banking cheques are received by a collection centre and after processing, are deposited in the bank. Lock-box system helps the firm to eliminate the between receipt of cheques and their deposit in the bank. In a lock- box system, the firm establishes a number of collection centres, considering customer location and volume of remtttance. At each centre, the firm hires a post office box and instructs its customers to mail their remittances to the box. The firm's local bank is given the authority to pick up the remittances directly from the local- box. The bank picks up the mail several times a day and deposits the cheques in the firm's account. For the internal accounting purposes of the firm, the bank prepares detail records of the cheques picked up. (Pandey, 1999; 775)

ii. Delaying Disbursement

A part from speedy collection of account receivable the cash requirement can be reduced by slow disbursement of account payable. It may be recalled that a basic strategy of cash management is to delay payment as long as possible without impairing the credit rating of the firm. In fact slow disbursement represents a source of funds requiring no interest payments. Some techniques to delay payment are: avoidance of early payment, centralized disbursement, floats and accruable. Quick collection and slow disbursement accomplish the corporation with adequate cash in hand for longer periods. Effective control of disbursement cash results in a faster turnover of cash.(Shrestha, 1980;625).

Where the underlying objectives of collection are maximum acceleration, the objective in disbursements are to slow them down as much as possible. (Van Horne, 1974; 426)

iii. Cash Velocity

Efficiency in the use of cash depends upon the cash velocity i.e. level of cash over a period of time.

$$\text{Cash Velocity} = \frac{Annual Sales}{Average cash Balance}$$

iv. Minimum Cash Balance

Corporations are required to keep a minimum cash balance requirement of a bank either for the service it render or in consideration of a lending arrangement.

v. Synchronized cash flows

Situation in which inflow coincides with outflows, there by permitting a firm to hold transaction balance to a minimum.

vi. Using float

Cheque written by firm can not deducted from bank records until they are actually received by the bank, possible matter of several days the lag between the times the cheque is written until the time the bank receives it is known as float.

vii. Transferring fund

A transferring fund is a system for moving funds among accounts at different banks. The main transfer mechanisms are depository transfer cheques (DTC), electronic depository transfer cheques (EDTC) and wire transfer.

viii. Overdraft system

A system where by depositors may write cheques in excess of their balances with their banks automatically extend leans to cover the shortage. Most of the foreign countries use overdraft system.

2.1.3   Different Techniques of Cash Management.

i. Cash Planning

Cash planning can help to anticipate future cash flows and needs of the firm and reduces the possibility of idle cash balance and cash deficits. Cash planning is a technique to plan and control the use of cash. (pandey, 1999; 843)

It protects the financial condition of the firm by developing a projected cash statement from a forecast of expected cash inflows outflows for a given period. The forecast may be based on the present operations or the anticipated

future operations. Cash plans are very crucial in developing the overall operating plans of the firm. Cash planning may be done on daily, weekly or monthly basis. The period and frequency of cash planning generally depends upon the size of the firm and philosophy of management.

ii. Cash Budget

Cash budget is the most significant device to plan for and control cash receipt and payment. A cash budget is a summary statement of the firms' expected cash inflows and outflows over a project time period. (Pandey, 1999;843) It gives information on the timing and magnitude of expected cash flows and cash balance over the projected period. This information helps the financial manager to determine the future cash needs of firm, plan for the financing of these needs and exercise control over the cash and liquidity of the firm.

The time horizon of a cash budget may differ firm to firm. Monthly cash budget may be prepared by a firm where business is affected by seasonal variations. Daily or weekly cash budgets should be prepared for determining cash requirements if cash flows show extreme fluctuations. Cash budget for a longer intervals may be prepared if cash flows are relatively stable.

Cash forecasting is needed to prepare cash budget. Cash forecasting may be done on short on long term basis.

iii. Short Term Cash Forecasting

Two most commonly used methods of short- term cash forecasting are as follows.

a) Receipts and Disbursements Method

Cash flow in and out most companies on a continuous basis, the prime aim of receipt and disbursement forecasts is to summaries these flows during a

predetermined period. In case of those companies where each item of income and expense involves flow of cash, this method is favoured to keep a close control over cash.

b) Adjusted Net Income Method

This method of cash forecasting involves the tracing of working capital flows. It is sometimes called the sources and uses approach. Two objectives of the adjusted net income approach are: i) to project the company's need for cash at some future data and   ii) to show where the company can generate this money internally, and if not, how much will have to be borrowed or raised in the capital market. It generally has three sections: Sources of cash, uses of cash and the adjusted cash balance. This procedure helps in adjusting estimated earnings on an accrual to cash basis. In preparing the adjusted net income forecasts items such as net income, depreciation, taxes, dividends etc. can easily be determined from the company's annual operating budget.

iv) Long -Term Cash Forecasting

Long- term cash forecasting is prepared to give an idea of the company's financial requirements in distant future. Once a company has developed long-term cash forecast, it can be used to evaluate the impact of say, new product developments or plant acquisitions on the firm's financial condition three, five or more years in the future. The major uses of long-term cash forecasts are:

) It indicates as a company's future financial needs, especially for its working capital requirements.

) It helps to evaluate proposed capital projects. It pin points the cash required to finance these projects as well as the cash to be generated by the company to support them.

) It helps to improve corporate planning; long term cash forecast compels each division to plan for future and to formulate projects carefully. Long

term cash forecasting reflects the impacted of growth, expansion or acquisitions; it also indicates financing problems arising from these developments.

2.1.4 Motives for Holding Cash

The firm holds cash for various montives They are.

） Transaction motive

The principal motive for holding cash is to conduct day to day operations. A cash balance associate with routine payments and collections like purchase of raw material, payment of wages, salaries, interest, dividends, taxes etc.

） Compensating Balance

A cash balance that a firm must maintain with a bank to compensate the bank services rendered or for granting a loan. Firm often maintains bank balance in excess of transactions needs as a means of compensating for the various services. These balances are called compensating balance. Bank provides various services to the firm like payment to cheque, information of credit, loan etc. so, firm should maintain the compensating balance.

） Precautionary Motive.

A cash balance held in reserve for random, unforeseen fluctuation in cash inflows and outflows, for example-flood, strike, inefficiency in collection of debtors, cancellation of order, failure of important customers, sharp increase in cost raw materials etc.

) **Speculative Motive**

A cash balance that is held to enable the firm to purchase that might arise. For example- purchasing of raw material at a reduced price on payment of immediate cash falls in price of shares and securities, purchasing at favourable price (Thapa, 2059;102).

2.1.5 Techniques for Improving Cash Flow

Planning the cash flows of a company should include consideration of how to improve cash flow. Improving cash flow basically involves increasing the amount of available cash on a day-to-day basis. To accomplish this objective the management should focus on following techniques:

Cash collection process

The management should increase the efficiency on cash collection process. Some ways often used to improve the efficiency of the cash collection process are as follows:

) Review the lag from the data of sale of goods and service on credit to the mailing of invoice and the first billing.

) The cash discount are given to customers for early payment; review their effect on really cash collections and whether the discount is too high or low.

) Review the credit granting process to determine whether bad credit risks are being screened out.

) The float lag can be minimized by using a lock box system or by establishing the bank account in outlying areas or by decreasing cheque processing time or by promoting timely frequent billing on all receivables.

Cash payment process:

The company could make effective payment process through delay payment of the cash as possible. Some techniques can be used to improve efficiency of cash payment process are as follows:

- All payment is on latest no penalty day.
- Maximize the float time by using cheque and mostly on afternoon of Friday.
- Cash discount should be taken for early payment.
- Cash advance should not given for any purpose.

Investment policies

The investment policies for the immediate investment of idle cash balance to maximize interest earnings. The company should develop a specific policy about the investment of temporarily idle cash.

2.1.6 Approaches used to develop cash budget

Following two approaches are used to develop cash budget:

- **Cash receipts and Disbursement approach**

Cash receipt and disbursement approach is also called direct or cash-account method. This method is based on a detailed analysis of the in creases and decreases in the budgeted cash account that will reflect all cash inflows and outflows from such budgets are sales expenses and capital expenditure. This approach is often used for short-term cash planning as a part of annual profit plan is used.

) **Financial accounting approach**

Financial accounting approach is useful for making long range cash projection. It is also called indirect or income approach. This approach requires less supporting detail and provides about the cash inflows and outflows. The starting point of this approach is planned net income and it is converted from accrual basis to a cash basis.

2.1.7 Determining the Optimum Cash Balance

Financial manager's responsibilities are to maintain a sound liquidity position of the firm. So that dues may be settled in time. The firms need cash not only to purchases raw materials and pay wages but also for payment of dividends interest, taxes and countless other purposes. The test of liquidity is really the availability of cash to meet the firm obligating when they become due thus the cash balance is maintained for transaction purpose and an additional amount may be maintained as a safety stock. The financial manager should determine the appropriate amount of cash balance. A trade of between risk and return influences such a decision. If the firm maintains a small cash balance, its liquidity position become weak and suffers from a capacity of cash to make payment. But investing released funds in some profitable opportunities can attain a higher profitability. If the firm maintains a high level of cash balance it will have a sound liquidity position. Thus the firm should maintain an optimum cash balance, to find out the optimum cash balance the transaction cost and risks of too small a balance should be matched with the opportunity costs of too large a balance.

2.1.8 Cash Management Models

The analytical models for cash management are as follows:

a) Baumol Model
b) Miller-Orr model

a) Baumol model

William baumol developed a basic inventory model to cash management. In this model it is assumed that the firm on average is growing and is a net user of cash. Marketable securities represent buffer stock between episodes of external financing, which is drawn down as required periodically. Ordering costs are represented by the clerical and transactions cost of making transfers between the investment portfolio and the cash account. The holding cost is the interest foregone on cash balance held. Assuming that expenditures occur evenly over time and that cash replenishments come in lump sums at periodic intervals the optimal size of the cash transfer is formulated as follows

$$C^* = \sqrt{\frac{2bt}{i}}$$

Where,

C*= the optimal size of the cash transfer

t= the total cash uses for the period of time include.

b=the cost of transaction in purchase or sales of marketable

Securities.

i = the applicable interest rate on marketable securities.

(Western and Copland, 2000; 784).

b) Miller – Orr Model

Miller and Orr incorporated stochastic nature of cash flows in their model. According to this model the cash flow is completely stochastic. the cash balance is adjusted to optimal return point Z when the cash balance touches zero or the optimal upper limit h. that is, when the cash balance touches zero an

amount equal to OZ will be converted from liquid assets to cash. When the cash balance touches h an amount hz will be invested in liquid asset and the cash balance will be brought to oz.

Figure 2.1

Graphical presentation of Miller Orr Model of cash balance

CASH

TIME
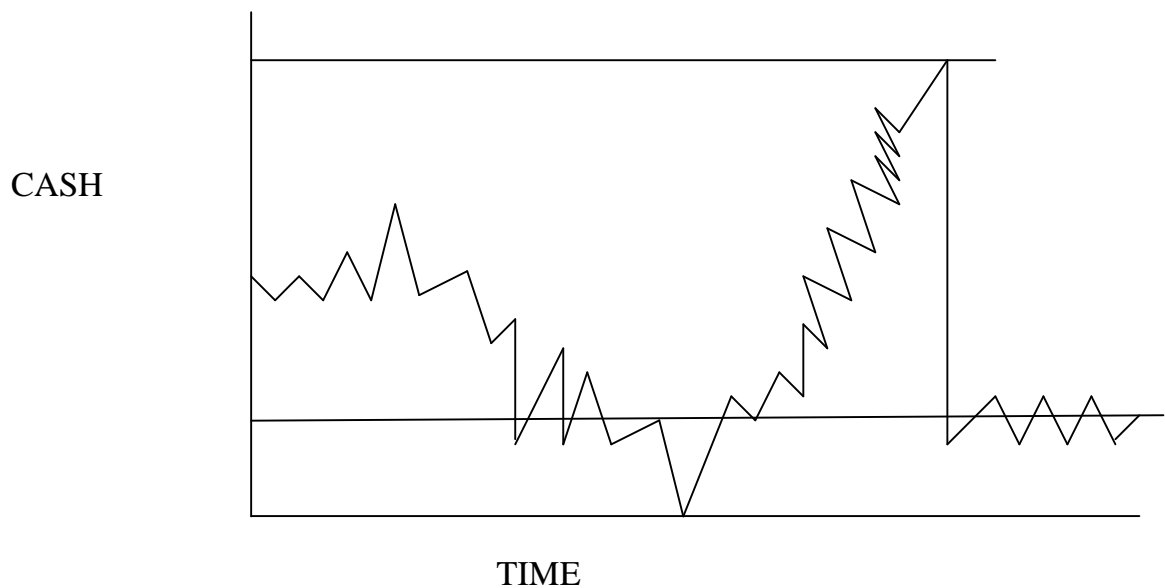
Under certain assumptions about the distribution of the cash flows they have established that

h = 3z

and the optimal value of z is given by

$$z = \frac{3r^2}{4c}$$

Where,

r is average yield of the alternate liquid assed.

is the variance of net cash flow .

C is the cost per transfer from cash to alternate asset and vice varsa.

This model like Baumal's model assumes transfer cost independent of the amount of transfer and direction. Again, the extreme assumption that net cash flows are completely stochastic may not be true on many occasions (Kuchhal, 1998;177).

2.1.9 Cash Management Objectives

Khan and Jain have expressed the basic objective of cash management are two fold:-

a) To meet the cash disbursement need (Payment Schedule):-

In course of daily business transaction, a firm has to make payments of cash to suppliers, employees and others. Likewise, cash balances are also collected through various debtors. To meet the payment schedules, a firm should maintain an adequate amount of cash balance. The advantages of maintaining adequate cash balance are:

- It prevents insolvency or bankruptcy arising out of the inability of a firm to meet its obligation,
- The relationship with the bank is not strained,
- It helps in fostering good relations with trade creditors and suppliers of raw materials, as prompt payment may help their own cash management,
- A trade discount can be availed of discount can be availed of if payment is made within the due date,
- It leads to a strong credit rating which enables the firm to purchased goods on favorable terms and to maintain its line of credit,
- To take advantage of favorable business opportunities that may be available periodically and

) Finally, the firm can meet unanticipated cash expenditure with minimum of strain during emergencies, such as strikes, fires or a new marketing campaign by competitors (Khan and Jain, 1974;667).

b) To minimize funds committed to cash balance:-

The next objective of cash is to curtail cash balance so that excess cash do not remain idle incurring a high cost. The latter objective sound contradictory in relation with the former. The firm should hold cash balance to meet payment schedules, however such balance should not exceed the sufficiency level. If there is more than required amount of cash balance, cash as an asset has no earning capacity, and thus it is disadvantageous for the firm in the sense that the unused portion of cash could have earned some profit if invested in other in alternatives of business. However, if there were deficit in cash balance, the firm would starve of meeting payment schedules leading into serious problem. So the core objective of cash management is that the business firm should have optimum level of cash or near-cash assets (Khan and Jain, 1974;667).

2.2.10 Review of Related Thesis and Publication

In this section the review of thesis relating to cash management have been considered. It encompasses a combined effort of entire researcher. The main objective of this part is to analyze the previous research study. An attempt is made here to review some of the research work works submitted are as follows:-

a) Mr.Bijaya Pradhan (1997) has conducted a research on the topic "A study on cash management of salt trading corporation limited". His main objective of the study is to examine the management of cash in STCL.

Under this main objective, he has set the following specific objectives.

To study the existing cash management system in STCL.

To access the credit policy adopted in STCL.

To expand few suggestions on the basis of above analysis to improve the cash management in future.

To find the above objectives, he has conducted a research of six years periods under consideration from FY 2047/48 to FY 2052/53. he has used both primary and secondary data. Primary data were collected from questionnaire; interview and secondary data were collected from financial statements of STCL.

After his brief study, he has found the following condition of STCL.

The STCL could not make the best use of available cash balance prudently.

The cash collection efficiency in the corporation is very low.

The collection of trade credit in the corporation is low during the three years of study period.

No, optimum cash balance is maintained.

On the basis of above findings, it is suggested to adopted the following

recommendation for better management of cash.

Cash should be efficiently managed.

Monthly trial balance, cash and funds flow statement and financial report should be prepared.

Effective account receivable management should be designed.

Effective credit policy should be adopted.

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Optimum cash balance should be maintained.

The surplus cash balance should be maintained

The surplus cash should be invested in profitable opportunities.

b) Mr. Dipendra Kumar Neupane (2001) has conducted a research on topic, **"A study on profit planning in Nepal Tele Communication Ltd".** The main objectives of the study were:-

To examine the practices an effectiveness of profit planning in NTC.

 To examine the present comprehensive profit planning system applied by NTC.

 To analyze the various functions, plan formulated and implemented in NTC.

 To analyze the financial position of NTCL by the help of radio analysis.

The main findings are as follows:-

Lack of systematic profit planning and control. Plans are prepared on "adhoc" basis.

 Actual production lines are more variable than budgeted production line.

 Overhead expenses are not classified systematically and it creates problem

  to analyze its expenses properly.

 Financial analysis shows that the financial performance of NTCL is not so

  good during the study period.

 Profit pattern of NTCL is on increasing trend.

The recommendations are as follows:-

Long-term objectives should be clearly formulated.

Sales budget should be made on realistic ground.

Management of NTCL should bring the effective programs of cost reduction and control.

Profit planning concept should be communicated top to lower level.

Variance analysis should be effective.

c) Mr.Bishwash Shrestha (2005) has conducted a research on the topic, Cash Management in Public Manufacturing Enterprizes of Nepal, **"A case study of Royal Drugs Limited."** His major objectives is to examine the management of cash in Royal Drugs Limited. The other objectives of this study are as given below:-

To make the analysis of cash flow of RDL.

To examine the liquidity position of RDL.

To analyze the cash budgeting practice

Critically analyze the cash management practice.

Large portion of RDL's current assets has been tied-up in the most illiquid asset, i.e. inventory.

Current assets and quick assets are not being maintained in accordance with current liabilities.

After analysis of above findings, he had suggested to adopt the following recommendation for better cash management.

Recommend to maintain optimum cash balance every year.

Recommend to prepare cash flow statement.

Recommend not tie-up current assets in unsalesable inventories

Maintain optimum current assets variables and current liabilities every year.

Use extensively financial and statistical tools as per required.

d) Mr.Tikaram Ghimire (2005) conducted a research on the topic **"Cash Management, A case study of Gorakhkali Rubber Udhyog Limited."**

In his study he has set the research problem: what policy is taken for cash management of the company? What system is adopting the company for collection and disbursement of cash? Average collection period is satisfactory or not? What position exists in holding of cash to transaction motives? The cash management system which is adopted by the company is well or not?

The main objectives of the study were:-

To present overall cash condition of GRUL.

To study the existing cash management system of GRUL.

To analyze the cash collection and disbursement system adopted GRUL.

To analyze the cash management policy adopted in GRUL.

After his study he has found the following findings:-

The company's capacity utilization is about 50%.

The industry has been facing the problem of skilled manpower.

The main sources of cash of the GRUL are sales of products and loan.

The industry sales its products in cash and in credit basis.

The company maintained optimum cash balance.

Cash turnover ratio is low which indicates low collection efficiency of the industry.

e) The other thesis reviewed was presented by **Mr.Rishi Raj Joshi** (2006), entitled "**Cash Management of Public Enterprizes in Nepal**" (A case study of Salt Trading Corporation Limited).

The main objectives of the study were:-

To examine practices used to control cash in STC Ltd.

To analyze liquidity position, profitability position and relation between different variables.

To examine and analyze cash flow statement and cash budgeting practices used by the STC Ltd.

To provide suitable recommendation to improve the cash management system in STC Ltd.

The main findings of the study were:-

The main sources of cash of STCL are sales revenue and loan from the loan from the bank.

There is lack of proper planning, budgeting and forecasting. There is absence of any formalized system of cash planning and cash budgeting in STCL.

The corporation has not exercised the modern techniques to debt collection, monitoring the payment behaviour of customers etc.

The corporation has not maintained optimum cash balance. The cash and bank balance with respect to current assets has been fluctuating trend similar to the case with respect to the total assets.

f) Bhuwan Raj Chataut (2008) **"Cash management In Nepal Telecom" described about cash management of Nepal Telecom.** The major objective of the study is to examine the management of cash in NTC.

The basis objectives are as follows:

To observe devices of planning and control of cash in NT.

To examine the existing internal control policy in NT regarding cash control practices.

To identify the shortage or excess of cash in the company and the procedures of financing for the shortage and investment of excess cash.

To study the liquidity position the company.

The findings of the study as follows

To meet operating expenses, 25% of actual annual expenses can be provided as advance budget in case the budget is not approved.

Deposits from customer of other parties received time to time should be deposited in deposit account.

In regards of account operation, transaction should be done with Nepal Rastra Bank of other commercial banks as recommended by committee.

Telecom offices should transfer the income amount from office fund account to central fund account keeping minimum balance amount in their offices.

CHAPTER - III
RESEARCH METHODOLOGY

Introduction

Research is the systematic and organized effort to investigate a specific problem that needs a solution. Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with the certain objects in view to get the conclusion. The objective of this research work is to find out the answer of the questions.

The methodology, which has been used in this study, consists of research design, nature and sources of data, data gathering procedure and the analytical tools etc.

3.1 Research design

The research design refers on overall framework or plan for the collection and analysis of data. It also refers to the systematic framework under which the research is conducted. The research design serves as a framework for study, guiding the collection and analysis of data. The research design focuses on the data, collection methods, the research instruments utilized and the sampling plan to be followed. It is planned structure and the strategy for research investigation. It involves selecting the most appropriate methods or techniques to solve the particular problems under the investigation. This research has followed the descriptive as well as analytical approach to achieve the objective.

3.2 Population and Sample

Public enterprises in Nepal had been established in various sectors for the development of the country. There are 36government owned organizations, which are operating at present. These are the population of the study. As study of each and every enterprises is not possible, so Nepal Telecom Limited which

belongs to public utility and social sector has been selected as sample using judgemental basis.

3.3   Nature and Sources of Data

True and fact information are necessary for the reliability and effectiveness of research work as information is the lifeblood for any research work. For this study different techniques and procedure have been adopted to collect necessary information and data. The study is based on secondary data.

3.4   Data Analysis Tools

Collection data is the connecting link to the world of reality for the researcher. The data collection in raw and crude form are managed, arranged, analyzed and presented in proper tables and formats are interpreted. To analyze the collected data, basically two types of tools are used.

3.4.1   Financial Tools for Analysis

i Analysis of Cash Turnover

The cash turnover ratio explains how quickly the cash received from the sales; in other words in measures the speed with cash move through an enterpriser's operation. Cash turnover ratio is obtained by following formula:-

$$Cash\ turnover = \frac{Sales}{Cash\ in\ Hand\,/\,at\ Bank}$$

ii. Analysis of Current Ratio

This ratio examines the liquidity position of the company. It examines the position of the company as to its holding of current assets against its current liabilities. Higher ratio indicates satisfactory position and vice versa. However, too high ratio is indication of poor cash management indicating high inventory and poor credit management.

The ideal current ratio is 2:1 however for a public enterprise, the ratio tends to be little lower than 2:1, as these enterprises generally require very little current assets. But never the less any company should maintain this ratio above 1:1, since ratio lower than this definitely indicates poor liquidity position.

The ratio computed as follows

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

iii. Analysis of Quick ratio or Acid Test Ratio

This ratio establishes a relationship between quick or liquid assets and current liabilities. An assert is liquid if it can be converted into cash immediately or reasonably soon without a loss value the quick ratio is found by dividing quick assets by current liabilities.

$$\text{Quick ratio} = \frac{\text{Current Assets - Inventories}}{\text{Current Liabilities}}$$

Hence, inventories are considered to be less liquid. The standard quick ratio is 1:1

iv) Receivables /Debtors Turnover Ratio

Receivable turnover ratio gives an idea as to how quickly receivables are converted into cash. The ratio can be computed as follows:-

$$\text{Receivable turnover (in time)} = \frac{\text{Sales}}{\text{Receivable}}$$

Along with this ratio, average collection period of receivables is also calculated. Shorter average collection period refers to good credit management and vice versa. But too short collection period suggests that the company has very rigid credit policy and thus sales curtail would be the consequences.

The average collection period can be calculated as follows.

$$Average\ Collection\ Period = \frac{Days\ in\ a\ year}{Receivable\ Turnover\ in\ Time}$$

v) Inventory (stock) Turnover Ratio

Inventory turnover ratio gives idea on how quickly inventory is converted into sales. Following formula is used to calculate inventory turnover ratio

vi) Cash and Bank Balance to Account Receivable

This ratio measures the cash and bank balance in relation with account receivables of the firm. Higher ratio refers to sound liquidity position and vice versa. However, too high ratio indicates that the business dealing are restricted to only those parties making quick payments, thereby limiting its scope of sales volume.

It is computed by

$$Cash\ Balance\ to\ Account\ Receivable\ X\frac{Cash\ and\ bank}{Account\ Receivable}$$

vii) Cash and Bank Balance to Current Assets:

This is also supportive to analyze the liquidity position of the firm. It measures the proportion of cash and bank balance, the most liquid asset in the total current assets. Higher ratio implies sound liquidity position and vice versa. Following formula is used to calculate cash and bank balance to current assets.

$$Cash\ and\ Bank\ Balance\ to\ Current\ Assets\ X\frac{Cash\ on\ Bank}{Current\ assets}$$

viii) Cash and Bank Balance to Current Liabilities

It calculates the cash balance available with the firm to make payment of current liabilities. Normally high ratio indicates good liquidity, too high and too low ratios are unfavorable for the firm. Since too high indicates excess cash balance and too low ratio means the firm unable to meet current liabilities. Following formula is used to compute cash and bank balance to current liabilities ratio.

$$\text{Cash to Current Liabilities X} \frac{\text{Cash and Bank}}{\text{Current Liabilities}}$$

ix) Net Profit Margin Ratio

This ratio shows the profitability position of a firm. Higher ratio indicates high profitability and vice versa. In simple terms, this ratio gives the percent profit or loss with respect to its sales. Net profit margin ratio is calculated using the following formula.

$$\text{Net Profit Margin Ratio X} \frac{\text{Net profit After Tax}}{\text{Sales}}$$

x) Return on Working Capital Ratio

The ratio indicates the proportion or current assets employed to earn the profit amount. Higher ratio is favourable and vice versa.

The formula is:

$$\text{Return on Working capital Ratio X} \frac{\text{Net Profit After Tax}}{\text{Current Assets}}$$

xi) Net Profit After Tax to Quick Assets Ratio

This ratio also examines profitability of a firm; analyses proportion of quick assets in earning the profit amount.

Formula:

$$\text{Net Profit After Tax to Quick Assets } X\frac{\text{Net Profit After Tax}}{\text{Quick Assets}}$$

3.4.2 Statistical Tools for Analysis

i) Karl Pearson'n Coefficient of Correlation (r) = $\dfrac{xy}{\sqrt{x^2}\sqrt{y^2}}$

If two variables (Say x and y) vary such that change in one variable results the change in other, then these two variables are said to be correlated. Such correlations may be positively correlated, if increases in X results increases in Y and decreases in X follows decrease in Y. Likewise, such correlations are said to be negatively correlated, if increases in X results decrease in Y and decrease in X follows increase in Y.

Correlation analysis refers to the statistical technique, which measures the degree of relationship or association between the variables. To put it differently, it helps in analyzing the co-variation of two or more variables.

It is to be noted that a high degree of correlation between two variables doesn't always necessarily imply that changes in one variation cause changes in the other, i.e. correlation doesn't necessarily imply causation while causation always implies correlation.

Out of the several methods of computing correlation, Karl Pearson's coefficient of correlation is one of the best and popular methods. Karl

Pearson's coefficient of correlation (r) measures the degree of association between the two variables suppose X and Y given by

$$r = \frac{xy}{\sqrt{x^2}\sqrt{y^2}}$$

Where,

r = Karl Pearson's coefficient of correlation between X and Y

$x = (X \quad \overline{X})$

$y = (Y \quad \overline{Y})$

And,

$$\overline{X} = \frac{X}{N}$$

N = No. of years/time period.

The value of r lies between +1.00 to -1.00

Value of +1 refers to highly positive correlation between the variables. i.e. one variable is directly proportional to another and vice versa.

Value of -1 refers to highly negative correlation between the variables, i.e. one variable is indirectly proportional to another, or in other words, increase in one variable leads to decrease in another variables and vice –versa.

Likewise, value nearer zero 'O' refers, there is no association between the variables, i.e. increase or decrease in one variable results no impact on another variable and vice-versa.

Together with Karl Pearson coefficient of correlation, probable error (P.E.) of the correlation coefficient is also computed. The probable error is

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used to measure the reliability and test of significance of correlation coefficient. It is calculated by the following formula:

$$P.E. \, \text{X} \, 0.6745 \frac{1 \, \text{Z} \, r^2}{\sqrt{N}}$$

Where,

r = the value of correlation coefficient.

N=number of pairs of observation.

P.E.= Probable error of correlation coefficient.

P.E. is used in interpretation whether the calculated value of r is significant or not.

i) If r <P.E., it is insignificant, i.e. there is no evidence of correlation.

ii) If r > 6 P.E., it is significant; Practically the correlation is certain.

iii) If PE < r < 6(PE) nothing can be calculated.

ii) Standard Deviation (S.D.)

$$\text{S.D.} \, (\dagger) = \sqrt{\frac{d^2}{N} \, \text{Z} \, \frac{d}{N}^2}$$

Standard Deviation (S.D.) measures scatterness, spreadness or variation and provides idea of homogeneity or heterogeneity of the distribution out of various method of studying dispersion such as Range, Inter quartile range and Quartile deviation, mean deviation, standard deviation and variance, Lorenz curve. The most popular methods are the standard deviation and variance

method. Standard deviation is represented by the symbol sigma '$\dagger$' and is calculated by this formula.

$$S.D.(\dagger) = \sqrt{\frac{1}{N} \; x^2} = \sqrt{\frac{d^2}{N} Z \left(\frac{d}{N}\right)^2}$$

Where,

$x X X Z \overline{X}$

N = Number of years/observations/time period

Along with standard deviation, coefficient of variation (C.V.) is also computed. Coefficient of variation is the relative measure based on standard deviating and is defined as the ratio of standard deviation to the mean expressed in percent.

Coefficient of Variation (C.V) is given by

$$C.V. = \frac{\dagger}{\overline{X}} \mid 100$$

Low economic growth rate, growing unemployment and poverty etc. are main problems of the country. These problems can be reduced through mobilizing all kinds of available resources. Nepal has adopted mixed economy to develop nation through participation of both private as well as public sector.

Nepalese main source of income is agriculture sector. More than 80% of the total population depends on the agriculture sector. Economic development of the country is easy through development of this agriculture sector (Ghimire, 2004; 187).

Most of people are living in the rural areas and are below the line of poverty. Though agriculture is main stay of Nepalese economy, only this sector is handicapped, so the nation should also emphasize other industrial and commercial areas.

Like other developing countries in the world, the government of Nepal has also taken public enterprises as a means of economic development of the country, after the introduction of first plan in 1956. The rationale behind the establishment of such enterprises is to carry the programs set in the economic plan for economic development, which makes the country self sufficient ultimately. Due to lack of infrastructure, lack of skilled man power, investment problem, unwillingness to bear the risk of private sector, unbalance development of the country were the reasons behind the emergence of public sector.

CHAPTER - IV
PRESENTATION AND ANALYSIS OF DATA

The main purpose of this chapter is to introduce the method of interpretation of the data to fulfill the research objective. The raw data collected from the literature review and through review of various financial statement of Nepal telecom limited, were organized and presented in the form of tables, charts, diagrams, appropriate statistical and financial tools were applied to the data to draw valid conclusions.

Thus, the main purpose of this study is to highlight the cash management system in the non-manufacturing public enterprises. For this reason, Nepal telecommunication limited has been reason, Nepal telecommunication limited has been randomly selected from the study. To accomplish these objectives, this chapter gives a detailed analysis the various aspects of cash management as prevailed in the organization. Specially, the study covers the period of 5 years fiscal years from 2060/061 to 2064/065.

4.1   Analysis of Liquidity Position

4.1.1   Analysis of Cash and Bank Balance

Management of cash is a critical task of management. Cash management ensures optimum cash balance holding. The cash refers to cash in hand, cash at bank and cash in transit, near cash assets such as marketable securities and time deposit in bank. Table 4.1 show the amount of cash and Bank balance at the end of each fiscal year under study. The ending balance of cash is compared with proceeding year to analyze the fluctuation.

Table 4.1

Actual Cash and Bank Balance and Variations

(Rs. in hundred million)

Fiscal Year	Cash and Bank	Increase (Decrease %)
2059/60	100.97	-
2060/61	107.8	6.76%
2061/62	95.74	(11.87)%
2062/63	120.21	25.55%
2063/64	147.46	22.66%
2064/65	161.34	9.41%

Source: Annual Report of NTCL

Above table 4.1 shows the amount of cash and bank balance of NTCl during the period under study. The cash balance of each fiscal year and has been compared to preceding year to analyze fluctuations. Beginning from the year 2059/60, the corporation has an increasing trend in overall the year 2064/65. In fiscal year 2059/60 the cash balance of company was Rs. 100.97 hundred million, which increase by 6.76% to Rs. 107.8 hundred million in the year 2060/61. In FY 2061/62 decreasing ratio is 11.87% to 95.74 hundred million. In FY 2062/63, 2063/64 and 2064/65 the increasing ratio is 25.55%, 22.66% and 9.41% respectively.

Hence to calculate this interpretation it can be said that NTCL has satisfactory liquidity position and it has maintained proper cash and bank balances.

The above table shows in bar diagram.

Figure 4.1

Bar Diagram showing Cash and Bank Balance

(F.Y. 2059/60-2064/65)
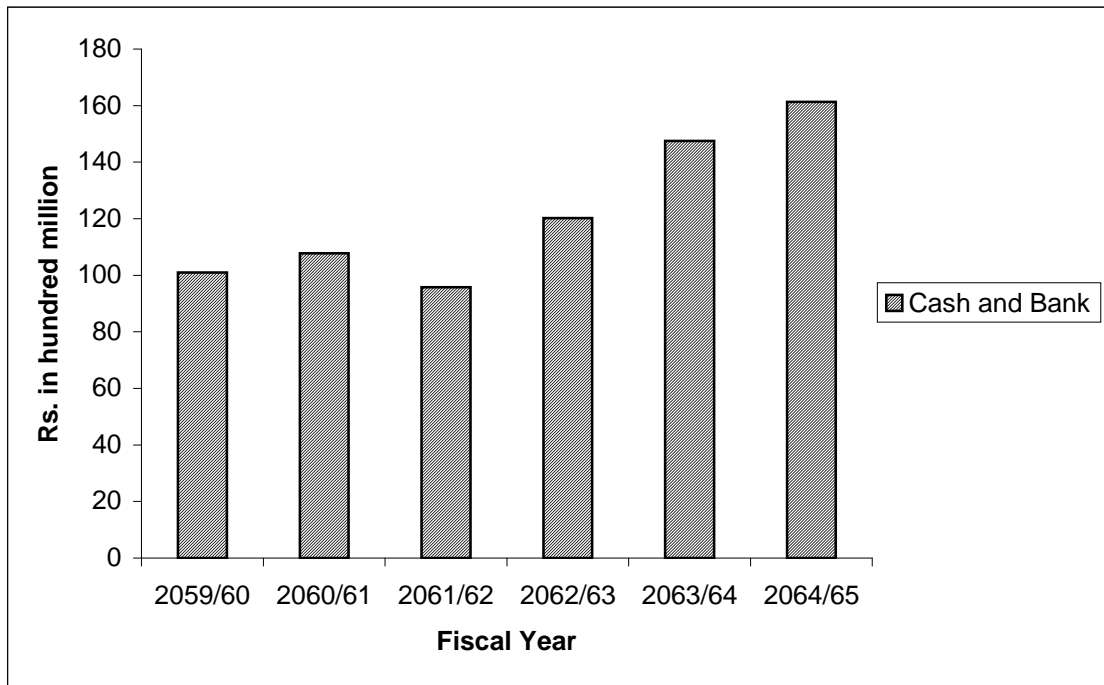
The above bar diagram shows that cash and bank balance is minimum in the year 2061/62 and maximum in the year 2064/65.

4.1.2 Analysis of Dispersion of Cash and Bank Balance

Table 4.2 shows the dispersion in the cash balance at the year ends under study. Standard deviation is the measures of dispersion used for the analysis.

Table 4.2

Cash and Bank Balance and Dispersion

Fiscal Year	Cash and Bank (X)	$x = (X - \overline{X})$	$x^2 (X-\overline{X})^2$
2060/61	107.8	-18.71	350
2061/62	95.75	-30.77	946.79
2062/63	120.21	-6.3	39.69
2063/64	147.465	20.95	438.90
2064/65	161.34	34.83	1213.12
N = 5	$\phi X = 632.55$		$\phi x^2 = 2988.5$

Source: Annual Report of NTCL

$$\text{Mean } (\overline{X}) = \frac{X}{N} = \frac{632.55}{5} = 126.61 \text{ hundred million}$$

$$\text{Standard deviation } (\exists) = \sqrt{\frac{x^2}{N}} = \sqrt{\frac{2988.5}{5}}$$

$$= 24.44 \text{ hundred million}$$

Standard deviation of cash balance shows that the company has been holding satisfactory cash balance. The cash balance held one sometimes increasing ratio is high and sometimes is low. Computed S.D. has been found Rs. 24.44 hundred million, which indicates the fluctuation pattern of cash balance.

$$\text{Coefficient of variation (C.V.)} = \frac{\exists}{\overline{x}} \mid 100 = \frac{24.44}{126.51}$$

$$= 19.31\%$$

Lower C.V. indicates higher consistency or higher homogeneity or highly stable cash balance, whereas higher. C.V. indicated just the opposite.

C.V. 19.31% definitely signifies that the homogeneity on holding cash balance of NTCL is not stable.

4.1.3 Analysis of Cash Turnover Ratio/ Sales to Cash and Bank Balance

The cash balance of the company should be optimum to meet its current obligations in course of daily business transaction. The cash turnover ratio explains how quickly the cash is received from the sales, or in other words it measures the speed with which cash move through an enterprise's operation.

The ratio shows the number of cash balance turnover during the year. Higher ratio represents sound liquidity and vice versa. However, too high ratio indicates excess cash balance being held idle.

Table 4.3

Analysis of Cash Turnover Ratio

(Rs. in hundred million)

F.Y.	Sales	Cash and Bank	Ratio	Cash Conversion days
2060/61	88.55	107.8	0.82	439
2061/62	91.94	95.74	0.96	375
2062/63	110.58	120.21	0.91	395
2063/64	147.51	147.46	1.00033	359
2064/65	169.15	161.34	1.048	343
Total	607.73	632.55	-	-
Average	121.54	126.51	0.94	382

Source: Annual Report of NTCL

Table 4.3 shows that the highest cash turnover ratio is 1.048 times I the fiscal year 2064/65. The average turnover ratio is 0.94 times the lowest turnover ratio in the year 2060/61 is 0.82 times. This table shows that cash turnover time in the corporation is not consistent.

The table also shows that the cash conversion cycle fluctuates 343 to 439 days. The average conversion day is 382. However due to unavailability of information regarding credit policy of the company, the days allowed to its customer was not known. So no precise analysis could be carried out for cash turnover cycle.

4.1.4 Analysis of Correlation between Sales and Cash and Bank Balance

The cash balance held at the end of fiscal year could fluctuate in relation to fluctuation in other variables. But in general sales grow higher, the cash balance held tend to be higher too, and vice versa. It means the cash balance held and sales volume is positively correlated. The following statistical analysis shows if the company has been following the general rule or not.

Table 4.4

Sales Cash and Bank Balance and Correlation

Fiscal Year	Sale (X)	Cash and Bank (Y)	$x= X-\overline{X}$	x^2	$y=Y-\overline{Y}$	y^2	xy
2060/61	88.55	107.8	-32.99	1088.34	-18.71	350.06	617.24
2061/62	91.94	95.74	-29.6	876.16	-30.77	946.79	910.79
2062/63	110.58	120.21	-10.96	120.12	-6.3	39.69	69.04
2063/64	147.51	147.46	25.97	674.44	20.95	438.9	544.07
2064/65	169.15	161.34	47.61	2266.71	34.83	1213.12	1658.25
N=5	$\phi X=607.73$	$\phi Y= 632.55$	-	$\phi x^2 =$ 5025.77	-	$\phi y^2 =$ 2988.5	$\phi xy =$ 3799.39

Source: Annual Report of NTCL

Mean $\overline{X} = \dfrac{X}{N} = \dfrac{607.73}{5} = 121.54$

Mean $\overline{Y} = \dfrac{Y}{N} = \dfrac{632.55}{5} = 126.51$

$$\text{Karl Pearson's correlation (r)} = \frac{xy}{\sqrt{x^2} \cdot \sqrt{y^2}}$$

$$X\frac{3799.39}{\sqrt{5025.77} \mid \sqrt{2988.5}}$$

$$X\frac{3799.39}{70.89 \mid 54.66} X0.98$$

Above calculated correlation shows high degree of positive correlation between sales volume and cash Balance. The correlation coefficient 0.98 is practically significant, which is nearer to 1 to test the measurement of reliability of the correlation coefficient (V) the probable error can be shown as below:

$$\text{Probable error (P.E.)} = \frac{0.6745(1\,Zr^2)}{\sqrt{N}}$$

$$X\frac{0.6745(1\,Z0.98^2)}{\sqrt{5}}$$
$$6(P.E.)\,X6 \mid 0.0119\,X0.0714$$

Now, if R > 6 (P.E.) it is indicative of statistically significant posirive correlation. The upper and lower limit within which the correlation coefficient expected to lie are given by:

Upper limit = r + P.E. = 0.89 + 0.0714

Lower limit = r – P.E. = 0.98 – 0.0714

$$= 1.0514$$

$$= 0.9086$$

So the coefficient of correlation expected to lie between 1.0514 and 0.9086.

4.2   Analysis of Liquidity Relation between its Variables

Liquidity Ratio Measures the firm's ability to meet current obligations. It reflects the short-term financial strength of the business. If firm has adequate liquidity poison, the short-term creditors are interested in such firm as a result the firm can fulfill its short-term requirements readily. But too much liquidity position indicates the mismanagement of liquid assets. The liquidity position can be analysed with the help of current ratio and quick ratio as follow.

4.2.1   Analysis of Current Ratio (Current Assets to Current Liabilities

The current ratio of NTC can be traced below:

Table 4.5

Current Assets, Current Liabilities and Current Ratio

(Rs. in hundred Million)

Fiscal Year	Current Assets	Current Liabilities	Ratio (times)
2060/61	218.33	41.23	5.29
2061/62	205.98	38.58	5.33
2062/63	225.26	44.75	5.03
2063/64	235.19	57.12	4.11
2064/65	241.80	79.15	3.05
Total	1126.56	260.83	22.81
Average	225.31	52.16	4.56

Sources: Annual Report of NTCL

Completed current Ration shows that the firm did not get any scarcity of the short-term settlement during the last 5 years period. The ratio of 4.56 times on an average indicates that the corporation has current Assets of Rs. 4.56 for the liabilities of Rs. 1. NTCL is able to pay its current liabilities at the time of requirement but company has much more idle capital. To conclude this inter

pretation it can be said that NTCL is facing the problem of idle capital because there is mismanagement of cash Normally, current assets should have positive correction with current liabilities. In other words, when current liabilities are higher. The current Assets should also be higher so as to counter the problem of payment in short-tern business or vice versa. If the company has been able to maintain good liquidity position the correlation between these two variables should be significantly positive.

4.2.2 Analysis of Acid test or quick Ratio or Quick Assets to Current Liabilities

The Acid test ratio shows the relation between quick assets and current liabilities. This ratio conveys the most precise information on liquidity position of a firm, since it excludes the inventory, the least liquid assets from the current Assets and compare it with current liabilities. Inventory is less liquid because it requires certain time to get convert into cash. Quick ratio measures the capacity of firm to meet its current liabilities quickly. It is computed dividing quick assets by current liabilities.

Table 4.6

Quick Asset, Current Liabilities and Quick/Acid Test Ratio

(Rs. in hundred Million)

Fiscal Year	Quick Assets	Current Liabilities	Ratio QA/C.L
2060/61	215.77	41.23	5.23
2061/62	202.88	38.58	5.25
2062/63	221.97	44.75	4.96
2063/64	231.92	57.12	4.06
2064/65	237.64	79.15	3.00
Total	1110.18	260.83	-
Average	222.03	52.16	4.5

Sources: Annual Report of NTCL

Quick Assets = current Assets – Inventory

The standard quick ratio is 1:1 observing the figures in table no. 4.6, to conclude that the ratio obtained are satisfactory for the all fiscal years however, ratios for all fiscal years have above the standard ratio and as such liquidity position creates the harmful situation for the company because there is possibility of misutilization of cash.

Overall the liquidity position is satisfactory through the ratio of fluctuate moderately. The average the ratio of fluctuate moderately. The average ratio is 4.5 higher than conventionally accepted ratio of 1:1 and thus it is satisfactory.

Besides Analysis of quick ratio correlation between quick assets and current liabilities is also analyzed. Normally, relation between there two should be significantly positively correlated.

The correlation coefficient between Q.A and C.L has been identified to be ® = 0.992 It means very high positive correlated between Q.A and C.L r = 0.9902 > 6(P.E) = 0.2884. It is indicative of spastically significant positive correlation.

Therefore, this correlation analysis indicated that the company has been significantly increasing its quick assets accordingly with increase in current liabilities and vice versa.

4.3   Analysis of Profitability Position

A Company should earn profit to service and growth over a long period of time. Profile is essential but it would be wrong to assume that every action initiated by management of company should be aimed at Maximizing profit, irrespective of social consequence. It is fact that sufficient profits must be earned to sustain the operation of the business to be able to obtain funds from investors for expending and growth and contribute towards the social overheads for the welfare of the society.

Profit is the difference between revenues and expenses over a period of time. Profit is the ultimate output of company, and it will have no future if it fails to make sufficient profit. Therefore the financial manager should continuously evaluate the efficiency of its company in term of profit. The profitability ratios are calculated to measure the operating efficiency and owners are also inherited in the profitability of the firm (Pandey, 1999: 124).

4.3.1 Analysis of Net profit Margin Ratio

Net profit margin ratio measures the relationship between net profits and sales of a firm. It high profit Margin indicates adequate return to the firm and thus enables with standing in adverse economic situation when sales price is declining, cost of production is rising and demand for the product is failing allow profit margin show just the opposites. Net profit margin ratio is computed by dividing net profit After tax by sales.

Table 4.7

Analysis of Net profit Margin Ratio

(Rs in hundred million)

Fiscal Year	Net profit after (loss)	Sales	Ratio (%)
2060/61	32.90	88.55	37.15%
2061/62	35.42	91.94	38.52%
2062/63	49.36	110.58	44.63%
2063/64	56.52	147.51	38.31%
2064/65	79.42	169.15	46.95
Total	253.62	607.73	-
Average	50.72	121.54	41.11%

Sources: Annual Report of NTCL

The analysis showed that the company has been operating under profit in all of the fiscal years.

It shows the NTCL has good condition in profitability position. Noticeable in the F.Y 2064/65, the net profit margin ratio 46.95%., which is highly significant. It means net sales 169.15 which is higher than net profit. Similarly, net profit margin ratio is 37.15%, 38.52%, 44.63% and 38.31% in the fiscal year 2060/61, 2061/62, 2062/63 and 2063/64 respectively.

Overall the company has been operating under profit and it is in fluctuating trend. The average net profit Margin has been calculated 41.11%.

The above table shows that the NTCL has best condition in sales and net profit because it has earned profit in each fiscal year and sales has been increasing trend. This figure represented in graph.

Figure 4.2

Bar Diagram showing sales and Net profit (loss)
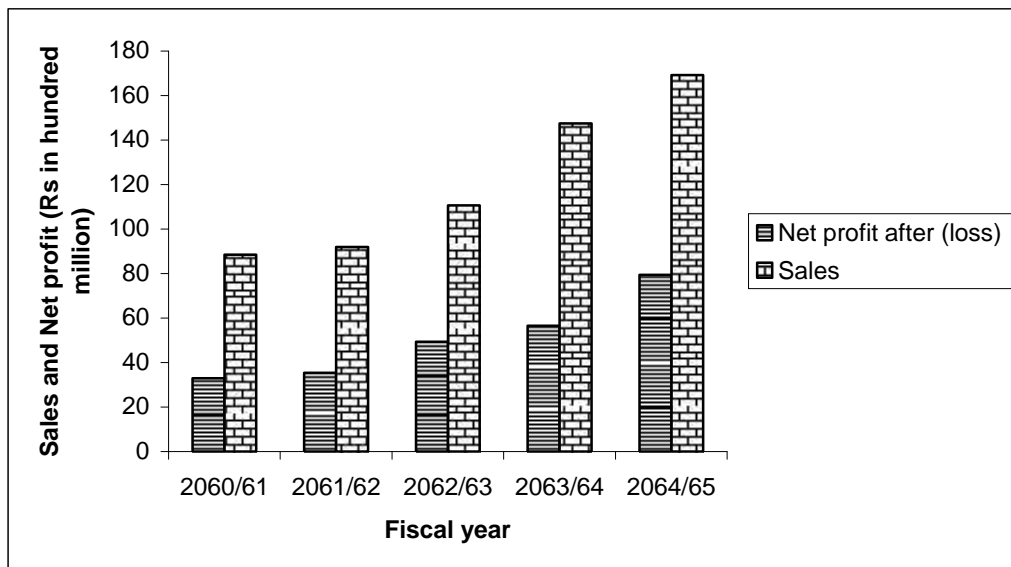
The above figure shows that sales and profit of NTCL. The figure indicates that the sales and net profit are Increasing ratio from the F.Y 2060/61 to 2064/65. That means NTCL is able to achieve satisfactory turn on investment indicating improved efficiency of the NTC.

A noteworthy fact here that the sales and profit held at the F.Y. ends could increase in relation to increase in other variables. For instance, if sales grow higher, as a general rule the net profit trend to be higher too and vice versa. Generally sales volume and net profit are positively correlated.

4.3.2　Analysis of Return o working capital

This ratio shows the utilization of current assets with respect to net profit after tax. It is computed by dividing net profit after tax current assets. Higher ratio indicates higher utilization of current assets to earn profit and vice versa.

Table 4.8

Net Profit After Tax, Current Assets and Return in working capital

(Rs in hundred Million)

Fiscal Year	Net profit after (loss)	Current Assets	Ratio (%)
2060/61	32.90	218.33	15.06%
2061/62	35.42	205.98	17.19%
2062/63	49.36	225.26	21.91%
2063/64	56.52	235.19	24.03%
2064/65	79.42	241.80	32.84%
Total	253.62	1126.56	-
Average	50.72	225.31	22.20%

Sources: Annual Report of NTCL

Table 4.8 shows that the NTCL has been utilizing its current assets effectively in generating profit. Noticeably, in the F.Y 2064/65 the Ratio is 32.84% which calls for good attention. Similarly return on working capital is 15.06%, 17.19%, 21.91% and 24003 in the F.Y 2060/61, 2061/62, 2062/63 and

2063/64 respectively. Besides the overall ratio is also satisfactory, indicating profit in all over the fiscal year.

Overall the return on working capital is indicating satisfactory performance of the company. Because of the data has been shown profit since last five years in regard with increment of current assets, the average return on working capital has been calculated 22.20%.

4.3.3   Analysis of Net Profit After Tax to Quick Assets

This ratio is used to analyze whether the firm is able to utilize its quick assets or not. Higher ratio indicates efficient utilization of quick assets and vice versa. This is completed by dividing net profit after tax by quick assets.

Table 4.9

Net profit After Tax, Quick Assets and Return on Quick Assets

(Rs in hundred Million)

Fiscal Year	Net profit after (loss)	Quick Assets	Ratio (%)
2060/61	32.90	215.77	15.24
2061/62	35.42	202.88	17.45
2062/63	49.36	221.97	22.23
2063/64	56.52	231.92	24.37
2064/65	79.42	237.64	33.42
Total	253.62	1110.18	-
Average	50.72	222.03	22.54

Source: Annual Report of NTCL

Table 4.9 shows that the net profit on quick assets of NTCL is in the increasing order. The highest percentage of net profit on quick assets is 33.42% in the fiscal year 2064/65 and lowest 15.24% is in the year 2061/61. Overall the

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average ratio has been calculated, 22.54%, which definitely signifies good situation of the company.

4.4   Analysis of Liquidity Relation to Profitability

There exists conflict between two words liquidity and profitability. Liquidity measures the solvency position of a firm in the short period, that's why the firm should maintain provision for cash and Bank Balance. But profitability refers the earning ability. Higher the liquidity lower the risk consequences lower the profitability lower the liquidity, higher risk and higher the profitability. Thus there is contradiction between liquidity and profitability, so the firm should seek for trade off between the two i.e liquidity and profitability. The conflicting nature of these two is such that when liquidity is being maintained profitability tends to fail down and vice versa. A firm should maintain satisfactory liquidity as well as profitability.

4.4.1   Analysis of Correlation between Return on Working Capital Ratio and Current Ratio

Hence Karl person's coefficient of correlation between liquidity and profitability has been analyzed. In the following analysis, return on working capital ratio has represented profitability ratio and likewise, current ratio has represented liquidity ratio.

Below table shows the listings of return on working capital ratios and current ratio for periods under study. Subsequently, Karl person's coefficient of correlation between the two has been calculated.

Table 4.10

Correlation between Return on working Capital Ratio and Current Ratio

(Rs in hundred million)

Fiscal Year	Return on WC % (x)	Current Ratio % (Y)	x= X-$\overline{X}$	y = Y-$\overline{Y}$	x^2	y^2	xy
2060/61	15.06	529	-7.14	72.8	50.97	5299.84	-519.79
2061/62	17.19	533	-5.01	76.8	25.10	5898.24	-384.76
2062/63	21.91	503	-0.29	46.8	0.084	2190.24	-13.57
2063/64	24.03	411	183	-45.2	3.34	2043.04	-82.71
2064/65	32.84	305	10.64	-151.2	113.20	22861.44	-1608.76
N=5	ϕX=111.03	ϕY= 2281	-	-	ϕx^2 X 192.694	$\phi y^2 =$ 38292.8	ϕxy = -2609.59

Source: Balance sheet & P/L A/C of NTCL

Mean $\overline{X} = \dfrac{\phi x}{N}$ $= \dfrac{111.03}{5}$ X22.20

Mean $\overline{y} = \dfrac{\phi y}{N}$ X$\dfrac{2281}{5}$ X456.2

Karl Person's coefficient of correlation

(r) $= \dfrac{\phi xy}{\sqrt{\phi n^2}\ |\sqrt{\phi y^2}}$ X$\dfrac{Z 2609.59}{\sqrt{192.69}\ |\sqrt{38292.8}}$

     = -0.96

This indicates that these exist highly Negative correlation. The significant of this negative correlation has been tased as follows:

Probable error (P.E) X $\dfrac{0.6745(1\,Zr^2)}{\sqrt{N}}$

$$X\dfrac{0.6745(Z(Z096)^2)}{\sqrt{5}}$$

$$X\dfrac{0.6745\,|\,0.0784}{2.236}$$

X0.0236

Since r< P.E i.e 0.0236 <0.25, so it indicates that there is significant Negative correlation.

4.5 Analysis of Receivable /Debtors Turnover Ratio

This ratio related with total sales and credit sales (debtors). This ratio shows how quickly receivable or debtors are converted into cash. In other word the debtor turnover ratio is a test of liquidity of the debtors of a firm. The ratio reflects that the company's effectiveness of receivable handling, that shows the speed of cash collection from the customers. Higher ratio and shorter the Average collection period indicates betters trade and consequently better liquidity of the enterprises and vice versa.

Table 4.11

Sales Receivables Turnover Ratio and Average Collection Days

(Rs in hundred Million)

Fiscal Year	Sales (Rs)	Receivables	Ratio (Times)	Average collection Days
2060/61	88.55	26.68	3.31	108
2061/62	91.94	28.25	3.25	110
2062/63	110.58	30.99	3.56	101
2063/64	147.51	34.55	4.26	84
2064/65	169.15	34.82	4.85	74
Total	607.73	155.29	19.23	477
Average	121.54	31.05	3.84	95

Source: Annual Report of NTCL

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

$$\text{Average collection days} = \frac{\text{Days in year}}{\text{Debtors turnover ratio}}$$

Table 4.11 shows that the receivable turnover ratio is fluctuating nature. The minimum time is in the fiscal year 2061/062 is 3.25 times where as higher ratio is in the year. 2064/65 is 4.85 times. The sales to receivable ratios are 3.31, 3.25, 3.56, 4.26 and 4.85 in the fiscal year 2060/61, 2061/62, 2062/63, 2063/64 and 2064/65 respectively.

Average collection days from 74 days to 110 days and overall the average of average collection days is 95 days. Since the information regarding credit days extended to customers are not available and more over such credit days are likely to very depending upon the nature of debtors. There is no absolute means of comparison available to compare the average collection days. So analysis regarding average collection days has not been carried out.

Figure 4.3

Graphical Presentation of Sales and Receivables
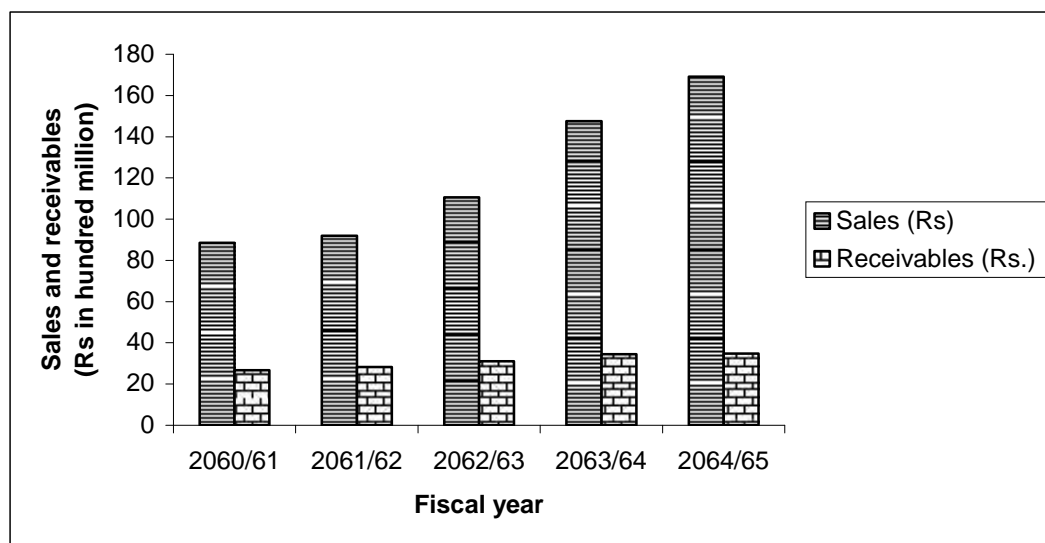
In the figure 3 it shows that the receivable one in the increasing trend. In the year 2064/65 sales is maximum and receivable is also maximum in this year.

4.6   Analysis of inventory Turnover Ratio

All organizations have a certain inventory. Inventory is least liquid current assets. High inventory turnover ratio singles better inventory management and vice versa. Inventory is kept for the motive of daily transactions.   Cautionary and speculative. Thus every firm has to manage optimum level of inventory. Higher inventory turnover time is favourable and good since of profitability and vice verse. The inventory turnover time can be calculated dividing sales by the ending or average inventory.

Table 4.12

Sales, Inventory, Turnover Ratio

(Rs. in hundred million)

Fiscal Year	Sales (Rs.)	Inventory (Rs.)	Ratio Times
2060/61	88.55	2.55	34.72
2061/62	91.94	3.09	29.75
2062/63	110.58	3.29	33.61
2063/64	147.51	3.27	45.11
2064/65	169.15	4.16	40.66
Total	607.73	16.36	-
Average	121.54	-	36.77

Source: Annual Report of NTCL

The table no. 4.12 shows that the NTCL has efficient inventory management. The inventory turnover is highest in the fiscal year 2063/64 is 45.11 times and least in the year 2061/62 is 29.75 times. In the fiscal year

2060/61, 2061/62, 2062/63, 2063/64 and 2064/65 inventory turnover times are 34.72, 29.75, 33.61, 45.11 and 40.66 respectively. These ratio are satisfactory higher the ratio that leads corporation towards profitability.

Figure 4.4

Graphical Presentation of Sales and Inventory
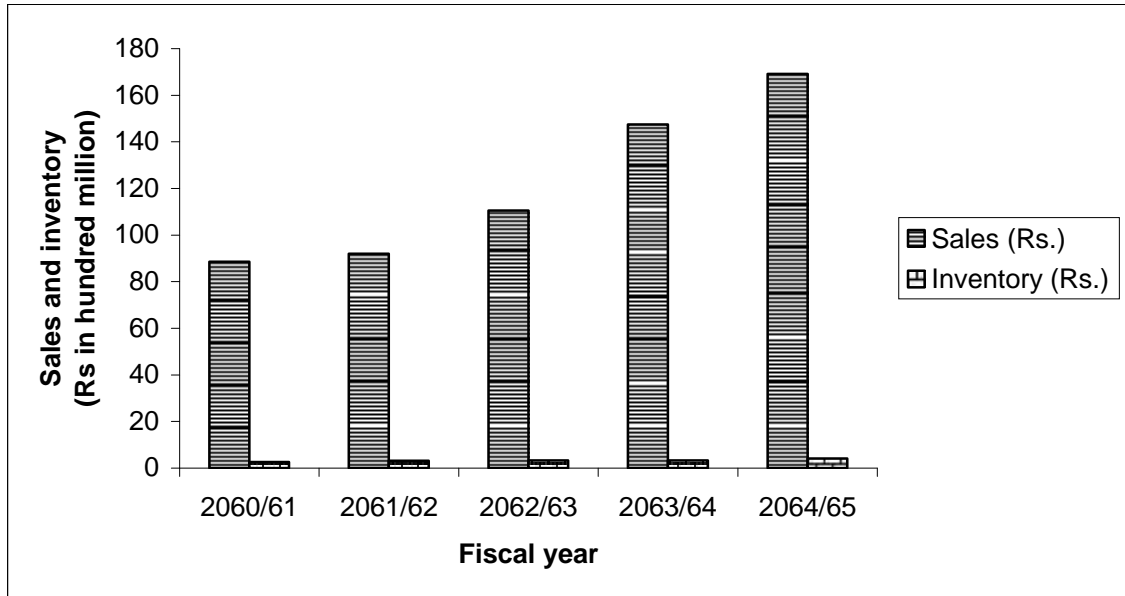
The figure 4 shows that the relation between sales and inventory. The inventory is maximum in the year 2064/65. The minimum level of inventory is in the fiscal year 2060/61.

4.7 Analysis of Cash and Bank Balance to Account Receivable

This ratio can be computed dividing cash and bank balance by account receivable. It measures the relationship between the cash balance on hand to account receivable. The higher ratio indicates better liquidity position and vice versa. However, too high ratio indicates excessive cash balance are held idle or unproductive.

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Table 4.13

Cash and Bank Balance to Account Receivable Ratio

(Rs. in hundred million)

Fiscal Year	Cash and Bank Balance (Rs.)	Account Receivable (Rs.)	Ratio %
2060/61	107.8	26.68	404.00%
2061/62	95.94	28.25	338.90%
2062/63	120.21	30.99	387.89%
2063/64	147.46	34.55	426.80%
2064/65	161.34	34.82	463.35%
Total	632.55	155.29	-
Average	121.54	31.05	404.18%

Source: Annual Report of NTCL

The table 4.13 shows the relation between cash and bank balance to account receivable. The percentage of cash and bank balance in F/Y 2060/61 to 463.35% in F.Y. 2064/65. The percentage of cash and bank balance in fiscal year 2061/62, 2062/63 and 2063/64 are 338.90%, 387.89% and 426.80% respectively. Which has indicated that the cash balance held in excessive and has been idle. The erratic fluctuation suggest that the company hasn't been following a definitive policy regarding how much cash balance to hold at the fiscal year end. The average ratio is 404.18.

4.8 Analysis of Cash and Bank Balance to Total Assets

The higher the cash and bank balance over total assets indicate the less risk and less profit and lower the ratio means higher the profit as well as risk. The ratio is calculated dividing cash and bank balance by total assets.

Table 4.14

Cash and Bank Balance to Total Assets Ratio

(Rs. in hundred million)

F/Y	Cash and Bank	Total Assets	% of cash & Bank on T.A.
2060/61	107.8	318.37	33.85%
2061/62	95.74	356.80	26.83%
2062/63	120.21	403.73	29.77%
2063/64	147.46	479.93	30.72%
2064/65	161.34	615.19	26.22%
Average			29.47%

Source: Annual Report of NTCL

The table 4.14 shows the percentage of cash and bank balance on total assets of NTCL. The percentage cash and bank balance on total assets in fiscal year 2060/61, 2061/62, 2062/63, 2063/64 and 2064/65 are 33.85%, 26.83%, 29.77%, 30.72% and 26.72% respectively. The table indicates that the proportion of cash balance is very high the company must have facing the problem of excess cash balance during these fiscal year. The average ratio has been calculate 29.47%.

4.9 Analysis of Cash and Bank Balance to Current Liabilities

The analysis of cash and bank balance to current liabilities indicate the proportion of cash balance available to meet the payments of current liabilities. A moderate ratio is considered satisfactory, too high ratio indicates excess cash balance held idle and too low ratio is indicate of company being unable to meet its payment of current liabilities in time.

Table 4.15

Analysis of Cash and Bank Balance to Current Liabilities

(Rs. in hundred million)

Fiscal Year	Bank and Cash	Current liabilities	Ratio (%)
2060/61	107.8	41.23	261.46%
2061/62	95.74	38.58	248.15%
2062/63	120.21	44.75	268.62%
2063/64	147.46	57.12	258.15%
2064/65	161.34	79.15	203.84%
Average	121.34	52.16	248.04%

Source: Balance sheet of NTCL

The table shows that cash and bank balance to current liabilities ratio of NTCL. In the fiscal year 2060/61, 2061/62, 2062/63, 2063/64 and 2064/65 the percentage of cash and bank against current liabilities are 261.46, 248.15, 268.62, 258.15 and 203.84 respectively. It could be stated that the company has been falling situation of cash excess during the fiscal year under study. The average ratio has been calculated is 248.04%.

4.10 Analysis of Cash Flow Statement

Cash flow statement prevails the cash and liquidity position of any organization. Cash flow statement describes the cash inflow, outflow and year and cash balance. Inflow of cash is known as source of cash and out flow in called use of cash. Cash flow statement is of great importance to both financing and investing activities of business enterprise and the consequent changes in its financial position for a period.

In this analysis, the three component of cash flow statement: operating activities, investing activities and financing activities have been analyzed.

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Table 4.16

Cash Flow Statement FY 2060/61 to 2064/650.

Rs. in hundred million

Fiscal Year / Particulars	2060/61	2061/62	2062/63	2063/64	2064/65
Cash flow from operating activities:					
Net Profit before tax	45.50	49.21	68.43	79.83	108.71
Adjustment:					
Depreciation	10.27	10.50	11.96	13.66	14.86
Defered Exp	0.32	0.40	0.4	0.58	0.71
Foreign exchange Gainer loss	0.28	2.51	(2.8)	5.26	0
Provision for staff bonus and incentive	3.09	2.81	3.22	4.89	3.52
Provision for pension and gratuity	2.34	3.12	2.41	2.86	(0.47)
Interest on loan	0.032	0.0069	0.011	0	0.10
Bad debts	0.0	-	0	2	-
Provision for liability	-	-	-	-	11.83
Provision for doubtful debt	2.25	-	-	-	-
Fixed assets written off	0.33	0.012	-	-	-
Income from investment and Bank deposit	(4.90)	(4.63)	(5.96)	(7.01)	(9.03)
Special change	0.07	-	-	-	-
Optical Inventory	-	-	-	0.37	-
Provision for Exp on lost goods	1.63	-	0.085	1.22	-

Provision for earned leave	0.37	0.24	0.65	0.71	(0.28)
Royalty	1.26	4.91	5.91	8.11	-
Operating profit before working capital changes	62.91	69.11	84.33	112.46	122.9
Adjustment for working capital changes	2060/61	2061/62	2062/63	2063/64	2064/65
Increase/ Decrease in A/R	1.35	(1.57)	(2.73)	(5.56)	-
Increase/ decrease in stock	0.50	(0.54)	(0.34)	0.0065	
Increase/ decrease in Interest Accrued	(0.18)	0.54	0.024	0.04	
Increase/ decrease in advance	(2.47)	2.21	3.82	(2.72)	
Increase in Advance Tax	(13.15)	16.02	(16.84)	(24.04)	
Branch A/C (Adjust)	0.12	0.04	0.027	(0.13)	
Increase/ Decrease in payable	3.32	2.26	(0.023)	0	
Payment of Interest	(0.13)	0.0047	(0.023)	-	
Payment of earned leave	(0.21)	(0.21)	(0.22)	(0.21)	
Payment of pension	(0.21)	(0.23)	(0.30)	(0.35)	
Payment of bonus and incentive	(3.61)	(3.84)	(3.01)	(2.48)	
Payment of income tax	(7.66)	-	-	(0.58)	
Last year adjustment	0.48	1.58	0.012	0.72	
Payment of Royalty	0	(4.50)	(3.70)	5.63	
Gratuity receive	0	-	0.000082	0.0000089	0.0000035
Working capital changes	(22.84)	(20.84)	(17.11)	(31.94)	24.91
Net cash flow from operating Activities (A)	40.07	48.27	67.22	80.52	97.99
Cash flow from investing Activities:					

Purchase of fixed assets	(15.49)	(19.57)	(22.43)	(16.67)	(30.47)
Decrease in WIP	(0.41)	(10.75)	(0.15)	(14.43)	(0.76)
Increase in deferred Exp.	0.053	(0.42)	(0.34)	(1.90)	-
Increase/ Decrease in investment	(3.83)	0.55	(8.18)	(7.26)	(34.86)
Income from investment and Bank deposite	4.90	4.63	5.96	7.01	9.03
Premium debenture	-	-	-	-	0.03
Net cash flow from inventing Activities (B)	(14.89)	(25.95)	(24.83)	(33.26)	(57.09)
Cash flow financing Aciivities:					
Receive in long-term debt	0.11	0.24	-	-	-
Payment of long term debt	(2.33)	(0.11)	(0.24)	-	(12.013)
Payment of dividend	(5.88)	(3.00)	(4.33)	(14.75)	(14.99)
Payment of retained earning to Nepal Govt.	(10.0)	(29.00)	16.11	0	0
Capital reserve Adjusted to retain earning	0	0	0.023	0	0
Receipt of share capital	0.05	0	0	0	0
Net cash flow from financing Activities (c)	(18.06)	(31.87)	(20.71)	(14.75)	(27.01)
Net increase in cash (A+B+C)	7.11	(9.55)	21.67	32.50	13.88
Cash at Beginning	100.97	107.8	95.74	120.21	147.46
Foreign exchange Gain/Loss	(0.28)	(2.51)	2.8	(5.26)	0
Cash at end	107.8	95.74	120.21	147.46	161.34

Source: Annual Report of NTCL

Figure 4.5

Cash Balance at the End Trend Line
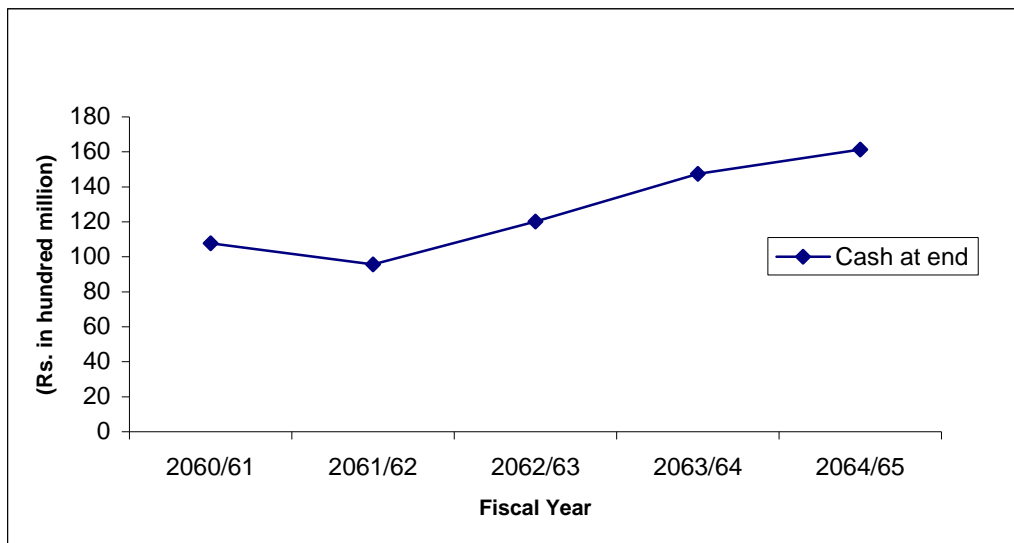
4.10.1 Analysis of Operating Activities

Those transactions, which are considered in the determination of net income, are known as operating activities.

All cash flows except related with investing and financing activities are classified as cash available from operating activities.

Table 4.16 shows cash flow statement of the NTCL for the last five year 2060/61 to 2064/65. The operating result of the NTCL is increasing nature. The operating range between Rs. 40.07 hundred million to 97.99 hundred million. In the fiscal year 2060/61 the amount of cash flow is minimum 40.07 hundred million and in the fiscal year 2064/65 there is highest cash flow from operating activities is Rs. 97.99 hundred million. Similarly the cash inflow in fiscal year 2061/62, 2062/63 and 206364 are 48.27, 67.22 and 80.52 hundred million respectively this result clears that the NTCL has following a certain guidelines policy. There is consistency in the operating activities.

4.10.2 Analysis of Investing Activities

Investing activities are the acquisition and disposal of long term assets and other investment not included in cash equipments. The table shows that the investing activities result is negative that means the NTCL makes investment or outflow cash in the all fiscal year. The highest outflow is Rs. 57.09 hundred million in the fiscal year 2064/65 and lowest outflow amount is Rs. 14.89 hundred million in fiscal year 2060/61. In the fiscal year 2061/62, 2062/63 and 2063/64 cash outflow are rs. 25.95, 24.83 and 33.26 hundred million respectively. There is no consistency in the investing activities.

4.10.3 Analysis of Financing Activities

A company's transaction with its owners and long term creditors are typically called financing activities. IAS defines "Financing Activities are activities that the result in changes in the size and composition of the equity, capital and borrowing of the enterprises".

The table shows that the company has issues share capital Rs. 0.05 hundred million in fiscal year 2060/61 during the study period. Financing activities has been observed to be satisfactory position of NTCL. The company has earned profit its operating and investing activities have been seen in good condition. There are cash flow in all fiscal year.

4.11 Analysis of Current Assets Variable: Inventory, Sundry Debtors and Advance Deposit

This analysis aims to examine the position of current assets of NTCL. The operating activities are main elements of the cash flow statement and one integral parts of operating activates include current assets variable.

Table 4.17

Current Assets Variable and Fluctuation on these Variables

(Rs. in hundred million)

Fiscal Year	Inventory	Increase decrease in inventory	Sundry debtors	Increase decrease in debtors	Advance deposit	Increase decrease advance deposit
2059/60	3.01	-	26.10	-	24.86	-
2060/61	2.55	(0.46)	26.68	0.58	25.72	0.86
2061/62	3.09	0.54	28.25	1.57	28.43	2.71
2062/63	3.29	0.20	30.99	2.74	32.05	3.62
2063/64	3.27	(0.02)	34.55	3.56	33.87	1.79
2064/65	4.16	0.89	34.82	0.27	34.95	1.08

Source: Annual Report of NTCL

One the part of the cash management is current assets management. If current assets are properly managed, there is lack of fluctuation in these assets and ultimately that leads consistency in the closing balance of cash. One aspect of current assets management is that, if there has been sound cash management practice in on organization, the fluctuation of these variables is moderate. The other aspect is that these increase/ decrease in variables moves in the some direction as the increase/ decrease in sales and profit of the organization. In other word, these variable are related with sales amount of the organization. Thus it can be generalize that inventory, sundry debtors and advance deposit are positively correlated to sales and profit.

Table 4.17 shows inventory is decreased by Rs. 0.46 hundred million in fiscal year 2060/61 with comparing to F.Y. 2059/60. Similarly in the fiscal year 2061/62 inventory is increase by Rs. 0.54 hundred million. In the fiscal year

2062/63 and 2064/65 is increase by Rs. 0.20 and 0.86 hundred million respectively. And in the year 2063/64 inventory is decreased by Rs. 0.02 hundred million.

The table shows the pictures of Sundry debtors in the increasing trend fiscal year 2060/61, 2061/62, 2062/63, 2063/64 and 2064/65 the sundry debtors increased by Rs. 0.58, Rs. 1.57, Rs. 2.74, Rs. 3.56 and 0.27 hundred million. The table shows advance deposites are in the fiscal year 2060/61, 2062/62, 2062/63, 2063/64 and 2064/65 are increased by Rs. 0.86, Rs. 2.71, Rs. 3.62, Rs. 1.798 and Rs. 1.08 respectively.

4.12 Analysis of Dispersion in Inventory and Correlation between Sales and Inventory

Standard deviation is the measurement of dispersion and coefficient of variation of the inventory has been computed as follows:

Table 4.18

Analysis of Dispersion and Correlation between sales and Inventory

(Rs. in hundred million)

Fiscal Year	Inventory (x)	Sales (Y)	$x=X-\overline{X}$	$y=Y-\overline{Y}$	x^2	y^2	Xy
2060/61	2.55	88.55	-0.72	-32.99	0.51	1088.34	23.75
2061/62	3.09	91.94	-0.18	-29.6	0.0324	876.16	5.32
2062/63	3.29	110.58	0.02	-10.96	0.0004	120.12	-0.2192
2063/64	3.27	147.51	0	25.97	0	674.44	0
2064/65	4.16	169.15	0.89	47.61	0.79	2266.71	0.7031
N=5	$\phi X=$ 16.36	$\phi Y =$ 607.73	-	-	$\phi x^2 =$ 1.332	$\phi y^2 =$ 5025.77	$\phi xy =$ 29.55

Source: Annual Report of NTCL

Mean $\overline{X} = \dfrac{\sum x}{N} = \dfrac{16.36}{5} = 3.27$

Mean $\overline{Y} = \dfrac{\sum Y}{N} = \dfrac{607.73}{5} = 121.54$

Standard deviation of Inventory $(\sigma x) = \sqrt{\dfrac{\sum x^2}{N}}$

$$= \sqrt{\dfrac{1.332}{5}} = 0.23 \text{ hundred million}$$

Coefficient of variation (C.V.) $= \dfrac{\sigma n}{\overline{x}} = \dfrac{0.23}{3.27}$

$$= 7.033\%$$

Karl person's coefficient of correlation (r) between sales inventory

$$r = \dfrac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \dfrac{29.55}{\sqrt{1.332}\sqrt{5025.77}}$$

$$= \dfrac{29.55}{1.154 \times 70.89}$$

$$= 0.3612$$

Computation of probable error P.E.

$$P.E = \dfrac{0.6745(1-r^2)}{\sqrt{N}} = \dfrac{0.6745(1-0.361^2)}{\sqrt{5}}$$

$$= \dfrac{0.6745 \times 0.869}{2.23}$$

$$= 0.263$$

The result, standard deviation 0.23 hundred million and coefficient of variation 7.033% means there is increasing in the inventory. The corporation is unable to manage its inventory properly.

Karl Pearson's correlation coefficient 0.361 means there is positive correlation between inventory and sales. Since correlation (r) is positive, in order to compare it with probable error |r| has been calculated as follows r = 0.361 In the case, P.E. <r < 6PE i.e. 0.263 <0.361 < 1.578. This implies, though there exited positive correlation between inventory and sales, conclusion could be derived as to statistically significant.

Table 4.19

Analysis of Dispersion in Sundry Debtors, Correlation Between Sales and Sundry Debtors

Rs. in hundred million

Fiscal Year	Sundry debtors (x)	Sales (Y)	$x=X-\overline{X}$	$y=Y-\overline{Y}$	x^2	y^2	xy
2060/61	26.68	88.55	-4.37	-32.99	19.09	1088.34	144.16
2061/62	28.25	91.94	-2.8	-29.6	7.84	876.16	82.88
2062/63	30.99	110.58	-0.06	-10.96	0.0036	120.12	0.65
2063/64	34.55	147.51	3.5	25.97	12.25	674.44	90.89
2064/65	34.82	169.15	3.77	47.61	14.21	2266.71	179.48
N=5	$\phi X=$ 155.29	$\phi Y =$ 607.73	-	-	$\phi x^2 =$ 53.39	$\phi y^2 =$ 5025.77	$\phi xy =$ 498.06

Source: Annual Report of NTCL

Mean $\overline{X} = \dfrac{x}{N} X \dfrac{155.29}{5} X 31.05$

Mean $\bar{Y} = \dfrac{\sum Y}{N} = \dfrac{607.73}{5} = 121.54$

Standard deviation of Inventory $(\sigma x) = \sqrt{\dfrac{x^2}{N}}$

$$= \sqrt{\dfrac{53.39}{5}} = \sqrt{10.678}$$

$$= 3.27 \text{ hundred million}$$

Coefficient of variation (C.V.) $= \dfrac{\sigma n}{\bar{x}} = \dfrac{3.27}{31.05}$

$$= 0.105$$

Karl person's coefficient of correlation (r) between sales inventory

$$r = \dfrac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}} = \dfrac{498.06}{\sqrt{53.39}\sqrt{5025.77}}$$

$$= \dfrac{498.06}{7.30 \mid 70.89}$$

$$= 0.96$$

Computation of probable error P.E.

$$P.E = \dfrac{0.6745\left(1-r^2\right)}{\sqrt{N}} = \dfrac{0.6745\left(1-0.96^2\right)}{\sqrt{5}}$$

$$= \dfrac{0.0528}{2.23}$$

$$= 0.0236$$

Standard deviation Rs. 3.27 hundred million and coefficient of variation 10.5% suggest that the sundry debtor. Increasing moderately. Karl person's coefficient of correlation (r) between sales and sundry debtors is 0.96. This indicates higher degree of positive correlation between two. Here, r> PE> i.e. 0.96> 0.236>. It is indicates that there is significant positive correlation.

Table 4.20

Analysis of Dispersion in Advance Deposit and Correlation between Sales and Advance Deposit

(Rs. in hundred million)

Fiscal Year	Advance Deposit (x)	Sales (Y)	$x=X-\overline{X}$	$y=Y-\overline{Y}$	x^2	y^2	xy
2060/61	25.72	88.55	-5.28	-32.99	27.87	1088.34	174.18
2061/62	28.43	91.94	-2.57	-29.6	6.60	876.16	76.07
2062/63	32.05	110.58	1.05	-10.96	1.10	120.12	-11.50
2063/64	33.87	147.51	2.87	25.97	8.23	674.44	74.53
2064/65	34.95	169.15	3.95	47.61	15.60	2266.71	188.05
N=5	$\phi X=$ 155.02	$\phi Y =$ 607.73	-	-	$\phi x^2 =$ 59.4	$\phi y^2 =$ 5025.77	$\phi xy =$ 501.33

Source: Annual Report of NTCL

Mean $\overline{X} = \dfrac{x}{N} \times \dfrac{155.02}{5} \times 31$

Mean $\overline{Y} = \dfrac{Y}{N} \times \dfrac{607.73}{5} \times 121.54$

Standard deviation of Inventory $(\exists x) = \sqrt{\dfrac{x^2}{N}}$

$$X\sqrt{\frac{59.4}{5}}$$

= 3.45 hundred million

Coefficient of variation (C.V.) = $\dfrac{\exists n}{\overline{x}}$ X $\dfrac{3.45}{31}$

= 0.112 = 11.12%

Karl person's coefficient of correlation (r) between sales inventory

$$r\,X\frac{xy}{\sqrt{x^2}\sqrt{y^2}}\,X\frac{501.33}{\sqrt{59.4}\sqrt{5025.77}}$$

$$X\frac{501.33}{7.30\mid 70.89}$$

X0.918

Computation of probable error P.E.

$$P.E\frac{0.6745\text{\textit{\j}}1\,Zr^2\text{\AA}}{\sqrt{N}}X\frac{0.6745\text{\textit{\j}}1\,Z0.918^2\text{\AA}}{\sqrt{5}}$$

$$X\frac{0.1060}{2.23}$$

X0.04756

Standard deviation Rs. 3.45 hundred million and coefficient of variation 11.12% declares that advance deposit has been moderately fluctuating. However, more stability is desired. Karl Person's coefficient of correlation (r) between sales and advance deposit is 0.918, indicates the two are highly correlated. In this case, PE> r< i.e. 0.0475> 0.918>. thus implies that there exited positive correlation between sales and advanced deposit.

4.13 Analysis of Current Liabilities

To analysis the current liabilities, the degree of dispersion and coefficient of variation tools are used. Low degree of dispersion and coefficient of variation considered favorable, signifying the firm to handle properly its liabilities.

Table 4.21

Computation of Dispersion and Coefficient of Variation of Current Liabilities

(Rs. in hundred million)

F.Y.	Current Liabilities (X)	$x = X - \overline{X}$	x^2
2060/61	41.23	-10.93	119.46
2061/62	38.58	-13.58	184.41
2062/63	44.75	-7.41	54.90
2063/64	57.12	4.96	24.60
2064/65	79.15	26.99	728.46
N=5	$\phi x = 260.83$	-	$\phi x^2 = 1111.83$

Source: Annual Report of NTCL

$$\text{Mean } \overline{X} = \frac{X}{N} = \frac{260.83}{5} = 52.16$$

$$\text{Standard deviation of Inventory } (\exists x) = \sqrt{\frac{x^2}{N}}$$

$$= \sqrt{\frac{1111.83}{5}}$$

$$= 14.91 \text{ hundred million}$$

Coefficient of variation (C.V.) $= \dfrac{\exists n}{\overline{x}} \; X \dfrac{14.91}{52.16}$

$= 0.285 = 28.58\%$

Standard deviation Rs. 14.91 hundred millions and coefficient of variation is 28.58% indicates there is fluctuation in current liabilities. It is due to the highest amount of current liabilities in the year 2064/65.

4.14 The Findings of the Study

On the basis of the different analysis, the following major findings have been drawn:

1. It is found that public sectors enterprises play backbone role for the economic development of the nation. NTCL is pioneering service oriented corporation of the Nepal which facilities conveying information quickly overlong distance with a cheep cost. The effects of the communication ion the rural areas and their contribution to rural development are potentially extremely important, yet rather difficult to measure.

2. Specific goal and strategy for the organization are setup by the top level executive and the management is governed by Government of Nepal.

3. The study result implies that the main sources of cash of NTCL are international trunk telephone, local telephone and domestic trunk telephone both of PSTN and mobile.

4. The dispersion of cash and bank balance is Rs. 24.44 hundred million and coefficient of variation is 19.31%. That result, there is low consistency in cash and bank balance.

5. The sales of NTCL are increasing year but the rate of increase is not stable. The correlation between sales and cash balance is positive. That means sales relationship with cash balance is positive.

6. NTCL has satisfactory liquidity position and it has maintained proper cash and bank balance. The cash and bank balance with respect to current liabilities has been increasing trend.

7. Relationship between sales and net profit of NTCL is in good condition it has been increased earned profit in each fiscal year and sales has been increasing trend.

8. The company has been utilizing its current assets effectively and the return on working capital of NTCL is indicating satisfactory performance of he company the average return on working capital over the study period is 20.20%.

9. The percentage of cash and bank balance over account receivable is in average 404.18 over the period.

10. The average cash turnover in a year is 0.94 times which is in fluctuating trend over the study period.

11. The net profit margin of corporation is maximum. The average net profit margin is 41.11% over the study period.

12. Inventory turnover ratio is 36.77 times which is satisfactory level. The data shows that some year the level of inventory is in increasing trend. Some year inventory decrease, fluctuating trend shows.

13. The amount of account receivable is in the increasing trend and cash and bank balance in average is about 404.18% of account receivable.

14. The cash and bank balance is in average 29.47% of the total assets, it is 248.04% of current liabilities.

15. Cash Budgeting practice of NTCl is poor there is absence of any formalized system of cash budgeting.

16. NTCL has borrowed higher rate long –term debts from different commercial banks, ADB, World Bank and different foreign countries. Rate of interest on some loan is not high and on some it is high.

17. Net profit of corporation is in increasing trend. However, the balance sheet of NTCL shows the huge amount of cash and bank balance

remaining idle. It indicates that the inefficiency of the corporation to utilize its liquid assets.

18. The current ratio of NTCL is satisfactory throughout the study period. It is found within the range of 3.05 to 5.33. This shows that NTCL is efficient in maintaining the good liquidity position. The ratio helps to analyze the financial capacity of NTCL to repay current liabilities and short-term loan.

19. NTCL does not follow the periodic performance reports.

20. NTCL has not adequately considered controllable and uncontrollable variables affecting the corporation similarly, the corporation is lacking the proper system of performance evolution of employees.

CHAPTER - V
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Cash is the life blood of every business organization. Without cash no businesses come to the establishment. So cash come to the position of the foundation of present business environment. From the early stage of human being when money came to the exchange system, they have been aware with management of money or cash. So the management of cash came to the exchange system when human mind has created money. After creating money in the exchange system, human being thought to manage cash in the best way in their daily house hold arrangement and business organization. And those business organizations come to the strong competitive position, which make the effective cash planning and best management of cash.

The idea of cash management has not come directly and independently in it's separate entity. Before 1970's cash management was affiliated with the economics. Many more organization of the world were enjoying by making reasonable profit margin and many organization before 1970's period survive without proper management of cash. But by the reason of inflation in 1970's the situation changed and many profitable enterprises were confronted with the problem of liquidity and even faced technical insolvency. The investors once again lost confidences in the credit worthiness of enterprises. As a result rising of funds, through the issue of shares from the present and potential investors become impossible. The liquidity problem also put pressure on the financial institutions making long term loans and forced them to rice to rates of interest very frequently. After 1970 and problem faced by the enterprises cash is considered as a major component of the working capital of the organization and started to manage cash in the best way then the separate entity of cash management has established. So the cash was come to the separate and independent entity by the 1970's inflation (Bajracharya, 1990).

Nepal Telecom Ltd. was established on 2032-03 01 B. S. under Nepal Telecommunication Act 2028 B.S. but name change on 2060-10-22 B.S under company act 2053 as a public utility sector enterprise to provide reliable and affordable telecommunication services throughout the country. It is exerting it's almost effort to provide communication services to larger scale of population. In the fiscal year 2062/63NTCL has seen 20.28% growth in its revenue, 2063/64 is 33.39% and 2064/65 is21.27% increasing revenue from the previous fiscal year. fiscal year 2061/62 to 2064/65 revenue is double. These increased can be attributed to the growth of 44,693 and total line is 554566 till 2065/66 magh additional lines distributed throughout the country along with the strict surveillance in revenue collection from the domestic and international services.

NTCL has already installed 437,919 lines and distributed about 369,428 lines by the end of Chaitra 2061 B.S. Out of which almost 199,312 telephone lines are concentrated in the Kathmandu valley alone. With the beginning of the new year 2062, the 30 years old NTCL is converted into a company and the changes in the new name as Nepal Telecomm Company Limited. The head office is located at Bhadrakali Plaza, Kathmandu.

The basic objective of this study is to analyze the cash management practices of the Nepalese organization. The present study is small step to examine the use of cash management practices in Nepal Telecommunication Ltd.

The scope of the study is limited for five years period i.e. fiscal year 2060/61 to 2064/65. Analytical and descriptive research design is followed; mainly secondary data has been used. Financial tool like financial ratio have been used to analyze the data. Similarly, accounting and statistical tool have been also used.

The study concentrates in accounting and financial aspects. Thus it lacks the other area. This study has been divided into five different chapters: -

introduction, review of literature, research methodology, presentation and analysis of data and summary, conclusion and recommendation.

5.2   Conclusion

The research study concludes that cash is one of basic elements for all organizations. All activities are lifted by cash. Above analysis reveals that the cash management of NTCL is satisfactory. The elements of cash management such as cash and bank balance, sales, inventory, receivables, advance deposit, cash turnover all are managed properly following definite rules and regulations. But there is not separate cash planning and budgeting technique adopted by the corporation.

The liquidity position of the NTCL is satisfactory level. The corporation has earned maximum profit over the study period. Net profit margin, return on working capital and net profit after tax to quick assets shows the satisfactory financial position. The correlation between different variables of liquidity and profitability is in the required situation.

NTCL is also trying to address social needs of the common people by organizing various programs but has not been very successful. The corporation has been facing some problems in corporation planning , participative management, evaluation of broad and long range objectives and co-ordination system in the organization. NTC's management system need change. NTCL is having another problem of government intervention. Most of the top level executive have linkage with political parties and they manipulate the decisions in the interest of the parties of their concern. Frequent intervention and instability of the government very negatively influence the performance of NTC. The corporation has ignored the environmental factors and it has also not adequately considered controllable and non-controllable variables affecting the corporation. Moreover, the corporation has no in depth analysis of the strengths, weakness and threats, where as this study can be concluded by listing out of the strength and weakness as follows:-

Strengths

⌡ Enough space for corporation.

⌡ Government favourism.

⌡ Sufficient manpower.

Sophisticated and technically enriched machinery.

⌡ Leading as monopolistic organization in telecom sector.

⌡ Customer facilities.

Weakness/Threats:

⌡ Lack of proper management.

⌡ High government and political intervention.

⌡ Lack of technical manpower and technical know how.

⌡ Natural challenges such as heavy rain, lighting, storm, landslide, conflagration etc.

⌡ The change and development of technology.

5.3   Recommendations

It is a suggestive framework based on analysis of the study. These recommendations will be useful to the management of the NTC, other concerned organization, individuals, institutions and other interested parties.

⌡ NTCL has maximum cash balance due to maximum or idle cash balance of NTCL minimize return. If it's maintained properly, it generates extra revenue.

⌡ NTCL should prepare monthly trail balance. Which help to the organization, to take corrective measures on adverse financial situation in time.

⌡ NTCL should give attention in account receivable management. Account receivable can be managed efficiently by designing an appropriate receivable

management programme by trying to maximize collection efforts by using credit terms likes 2/10 net 30, 1/20 net 60, 3/5 net 20 etc.

⌡ According to capital capacity, market situation of NTCL, it has not provided adequate service to its customers.

⌡ NTCL should prepare cash budget on the basis of cash flow statement. The objectives of preparing cash budget is to predict whether it any point of time there is likely to be an excess or shortage of cash. By finding excess or shortage of cash the company can manage the excess cash in investing short term assets and can manage cash deficit by borrowing short term loan.

⌡ .The financial position of the NTCL must be evaluating time to time due to overflow of liquidity (cash).

⌡ NTCL should be very well aware of its strengths and weakness. The monopoly of NTCL in telecom sectors has ended. In this competitive and globalize market situation many other firms are found to develop in some sector. Hence it is suggested that NTCL must be taken corrective action for entering new firms by strategic management policies.

⌡ NTCL should give attention in its operating. The operating expenses is high that reduces the net profit for the period. So the corporation should apply the cost reduction and cost control techniques in its operation. Standard costing , budgeting, variance analysis techniques should adopt and periodically performance report should be prepared for each responsibility center.

⌡ NTCL should timely evaluate its relevant variables and above all managerial involvement, organization adaptation, responsibility accounting, full communication, realistic expectation, time dimensions, flexible application, behavioral view point and follow up program should be made more effective, productive and result oriented.

⌡ For the overall development of any organization, its internal condition should be sound. NTCL has not yet come out of chronic diseases such as slow decision making, lack of systematic mechanism, co ordination and co-

operation, unnecessary internal expenses, time-consuming administrative procedure etc.

⌡ Telecom technologies have been changing in the blink of an eye. Choices of customers are also changing in accordance with the changing technologies. In this competitive and complex situation, NTCL and all its employer should focus more towards customer-service oriented. They have to provide promote and quality service because "customers are king" in case of any service-oriented organization. The mentality of all employees must be positive towards the organization.

⌡ The present burning issue of NTCL is how to handle challenges for the survival in a tough competitive environment. NTCL is on the verge crisis. So, at this moment all NTCL employees should uniformly stand for the welfare of organization. Actually NTCL has scarcity of required logistic and well-trained human resources. Therefore the overall quality and productivity of services are not satisfactorily increasing. NTCL is still running through traditional trend, the right men are not in right position. For instance the administrative department looks after the human resources activities and the responsible administrator does not necessarily posses and the crucial skills required managing employees. To motivate the employees, NTCL itself should create an environment. Recruitment, promotions, transfers and career opportunities should be always transparent. Management by objectives technique should be followed with co-ordination co-operation among all level of personnel responding to all departments.

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