

CHAPTER - ONE

INTRODUCTION

1.1 General Background of the Study

Oxford advanced Learner's Dictionary states that word cash means the money in any form which can be used for mode of payment. The term cash includes coins, currency and cheque held by the firm and balances in its bank accounts. Some times; near cash items such as marketable securities or bank deposits are also included in cash. (Thapa and Koirala; 2063)

Cash is the backbone of all types of business since they are established, run and also closed due to the flow of cash. It is also called that cash is the life blood of every business organization. Without cash no business come to establish. From the every stage of the human being when money comes to the exchange system, they have been aware with the management of money or cash. After entry of money in the exchange system, human being thought to manage cash in the best way in their daily house hold arrangements and business organizations. Those business organizations are seen in the strong competitive position, which make the effective cash planning and best management of cash.

If the corporation has sufficient cash, it could run as the predetermined plans to achieve the corporate goal. But the shortage of the essential amount of cash, corporation activity becomes reduced and ultimately shut down.

Managing cash flow is an extremely important task for a corporate manager because the primary goal of the public corporation is to provide facility as possible as cheap in the comparison of other private, national, international and multinational business originations. Qualitative goods, service and maximizing the corporate wealth (value) are only possible through the optimal cash management.

The main task of corporation for managing cash is to determine how much cash should be on hand of the firms at any time to ensure normal business operation continued smoothly without any interruption. If the corporation holds more cash (i.e. ideal holding) then the shareholder's return will not be maximized.

Two types of resources flow through many businesses cash and non-cash assets. Cash budgeting is an effective way to plan and control the cash flows.

Under the public corporation, cash management is the combination of the ideas about the cash flow position, ideal cash for the investment revenue, operating expenses and monitoring the cash position. (Ojha & Gautam, 2004). Thus, for the proper cash management, there are various techniques .They be should adapted such as cash flow synchronization using float, special collection (Lockbox system, Pre - authorized debt) showing the disbursement transfer mechanism, depository transfer cheque, electronic depository cheque, wire transfer etc.

1.1.1 Public Enterprise

After the political revolution in 2007B.S state took forward for the national development concept. Such emergence concept developed many national plans and motivated state ruler to take public responsibility on the basic needs and facility on their foods, health, shelter, clothes & education. Thus, to fulfill such responsibility, government established many public corporate. Which are the main foundation of modern Nepal economic development on the sector of trading, electricity, education and other infrastructure etc.

There were 62 public corporation established but many of them are suffered from losses due to various causes and only few corporations are successful to earn profit. Although suffering from losses, government ran them by helping economic subsidies, but they suffered losses. Then after, restoration of the democracy, Government changed the corporate policy to avoid such public limited, and took privatization scheme.

Some public limited which was able to earn profit continued running till now like Nepal Telecom, Salt Trading Corporation Ltd etc.

Government initiative was important when the private sector investment couldn't be attractive in the provision of basic social and economic services and in such condition the institution of public enterprises facing various problems and difficulties such as lack of managerial knowledge and authority, insufficient use of means and resources, short sightedness and political interruption, which made the large amount of government investment unproductive.

Although in case of enterprise remaining in the public sector for the time being various improvement programmed should be started so as to gain maximum utilization of available resources and capabilities structural reforms will be achieved by improving goods, services and overall business efficiency, finding the process of pricing, controlling financial irregularities and leakage making political and government involvement more productive and directing the size and capacity of enterprises towards the market. Public enterprises are an important factor for achieving the basic objectives of a country economic and social progress or in another word; public corporation not only provides goods and service but also creates employment opportunities, facilitates an effective mobilization of resources of capital and skill, which might otherwise remain unutilized.

1.2 Statement of Problem

Cash management refers to the proper management of firm cash position. STCL is facing a lot of problem. One of the most important problems is cash management problem. The cash and bank balance of the enterprises is those portions of its total current assets, which influence the type and terms of financing. Cash management is in itself a decision making area within framework of the overall current assets management.

It is an internet globalized era and golden environment for trading although through higher challenging phase due to the well development of the sector of informational technology. The world become revolving on the tip of the finger. So, it is necessary to well manage the same trading cash management. Excess amount of cash holding is known as vital factor to increase cost and hits losses. Generally when corporate has excess cash obtained it will invest in to the innovative businesses, which gives highly profit. STCL and other public limited are suffering from the traditional practices of cash management due to lack of scientific cash management. A more serious aspect of cash management has been the absences of formalized system of planning of cash budgeting for forecasting the cash requirements, cash collection, and account receivable.

The prior studies on profit planning system (Thapa; 2002)concludes that, STCL was operating just around BEP level due to lack of good cash management and suggested that to prepare budget sheet of cash flow. The present study aims to overcome the limitation of the existing studies on the basic of data and information which are found from STCL published

as annual report, personnel contact, individual interview of related officers and other staff. STCL is operating and using the methodology and technique to cash collection policy, debt and credit policy, service providing policy, inventory management system follows the government policy and guide line and legal provision.

Nowadays growth of corporate sector is rapidly increasing. Many more bank and financial institutions are providing modern banking system and services on the city's as well as remote areas too. According to the recent information of Nepal Rastra Bank, There are 31 commercial banks, which are opened already and many more are in process for opening. As the view point of the cash management, they provides supportive environment for cash collection and payment. STCL also develops the relations for conduct their banking activities throughout mainly 20 banks and other also.

1.3. Research Questions

To accomplish the research of cash management the Salt Trading Corporation Ltd and find out the fact of those issues, which are real base on the corporate activity and measurement of the strength and weakness, some accounting and financial tools have been used. This may solve the relevant questions. So, measurement of the financial strength of the Salt Trading Corporation Ltd and assessment to tactfulness of the cash management policies following question are arising as the vital indication.

- What is the liquidity position of STCL?
- What is the relationship between the cash and other financial variables of STCL?
- Whether the sales and cash variable are correlated?
- What is the efficiency of the receivable management in STCL and does it affect to the cash position?
- What is the policy about collection of cash?
- What are the factors affecting / supporting to cash management?
- What is the size of account receivable ratio?
- What is the inventory turnover ratio?

Focus of the Study

The cash managing is one of the vital functions of any corporation to maximize profit from corporate activities. The main focus of the study is to analyzed mode of the managing of cash and its correspondent element, which plays direct role to mobilize cash by taking as single sample of Nepalese Public Corporation “Salt Trading Corporation Limited”. Thus, the focus of the study is critical examination of cash management technique of STCL. The period covered by the study is 10 year from F/Y2056/57 to 2065/66.

1.4. Objectives of the Study

The major objectives of this study are to "analyze the relationship of current assets and cash management regarding corporate trading activity and its liquidity position". Another fact of the study is to examine the optimality and It suggests how to increase the efficiency of cash management .Specifically the objectives of the study are as follow.

- To describe the financial variables of STCL.
- To examine the overall liquidity position of STCL.
- To explain the relationship between cash and other financial variable’s like account receivable, current assets, sales, net working capital and profitability.

1.5. Limitation of the Study

The main focus of this study is cash management of Salt Trading Corporation Limited which covers all kinds of instruments of scientific cash management system. But the study is limited by the many factors. Those main limitations of the study are as follows.

- This study only covered 10 years data of fiscal years from2056/ 057 to 2065/66 for the analyses.
- The secondary data’s are the main bases of the study which may contain reporting errors.
- The collected data will not be sufficient for the using of all tools of cash management
- The difficulties to assessing and expression are some behavioral problems as accounting.

1.6. Organization of the Study

This study has been organized in mainly five chapters.

Chapter One: The first chapter is the introduction chapter, which deals with background of the STCL. It is concerned with the focus of study, objectives of study, and limitation of research methodology.

Chapter Two: The second chapter mainly includes the general concept of cash management, efficiency of cash management, cash management model, cash forecasting, determining the cash balance, cash planning and review of the related literature.

Chapter Three: This chapter includes research methodology, research design, data collection sources, data processing and tabulation. Tools used for analyzing the data have been included in this chapter.

Chapter Four: The fourth chapter deal with the data collection as required by the research study. These data's have been interpreted and analyzed with the help of various tools and techniques.

Chapter Five: The last chapter deals with summary, finding, conclusion and some recommendations.

Besides this a bibliography and appendix have been included in the last part of this study.

CHAPTER - TWO

REVIEW OF LITERATURE

2.1 Background

Meaning of cash management is concerned with the managing of cash like current assets, as well as current liabilities of the business. "Cash management is concerned with the decision regarding the short term funds influencing overall profitability and risk involving in the firm. The management of the cash has been regarded as one of the conditioning factor in the decision making issue."(R.M. Saksena; 1974).

It is no doubt, every difficult to point out as to how much cash is needed by a particular company, But it is very essential to analyze and find out the solution to make an efficient use of funds for maximizing the risk of loss to attain profit objectives. Cash is the money which a firm can disburse immediately without any restriction "The term cash includes coins, currency and cheques which is held by the firm and balance in its bank account. Sometime near cash item such as marketable securities or bank items, deposit are also includes in cash. The basic characteristics of near cash asset are that they can readily be converted in to cash, generally, when a firm has excess cash, it invests in marketable securities."(I.M.Panday; 1999)

The term cash is used as different approach according to the nature of the profession and Business. Although mainly not only the pieces or groups or metal with fixed signal are called money, it haves wide meaning from the view point of commercial student. Cash is the liquid which assets with a vital importance to the daily operation of business firm. "Cash is both the beginning and the end of the working capital cycle cash, inventories, receivable and cash. It is 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 throughout the entire business operation in the business solvency"(R. P. Kent; 1964).

Different opinions are aroused from different angles of view, Lawyers considers cash is the legal tender money which must be issued by an authority's agency, and Economist gives their versions that those substances are the money which satisfy the human needs or wants.

However, the world widely considers that the cash is the particular object having the value of currently mobilized with the liquidity and solvency. Whatever on the corporation cash has the most utilized efficiency to meet obligations of interest payment. If the cash is obtained from borrowing, it creates interest. If it is received through the share, it gets the dividends or favorable rate of return with the ownership responsibility. Cash is very expensive so it needs good management of the cash with proper plans of cash use as on adequate volume.

2.2 Conceptual framework

Principle of Cash Management

The size of the cash balance in hand & at bank to be maintained depends on the behavior of operating cash flows of the firms. Each business operation is unique in the matter of cash collection and disbursement. Such as, a firm needs to follow cash management strategies based on its own financial strength. Objectives of the cash management mainly concerned with the;

- a) Management of cash receipt.
- b) Disbursement
- c) Minimize of cash balance
- d) Use of the most inexpensive source of financing for cash balance and
- e) Investment of excess balance of cash.

The standard principle of cash management is as follows:

- i. To collect account receivable as possible without annoying and losing potential customers by establishing a system of lock boxes, electronic fund transfer, preauthorized checks, and deposit concentration.
- ii. To make daily payment as long as permitted without damaging the firms' credit rating by establishing controlled disbursement system.
- iii. To minimize cash balance without adversely affecting the business operation by following the technique of cash management
- iv. To manage the inexpensive source of financing for meeting term cash deficiency by optimally balancing risk.

- v. To invest short term excess cash in most efficient market portfolios of securities such as money market instruments (Pradhan,1992)

Advantage of Cash Management

The following advantages can be drawn from cash management.

- i. To maintain the credit rating.
- ii. To meet the emergency.
- iii. To meet the current obligation.
- iv. To meet the speculative motive.
- v. To avoid the cost arising due to excesses or shortage.
- vi. To grasp the benefit of opportunities.
- vii. To co-ordinate with the total working capital, sales revenue expenses, investment and liabilities.
- viii. To monitor the cash position.
- ix. To defer capital expenditures.

Efficiency of Cash Management

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

Speed Collection

One of the optimum cash collection method from customer bills receivable. This can be done through a lock box system, concentration banking and special holding for the movement of funds.

Concentration Banking

The establishment of a strategic collection center also helps the corporation to fasten the time, when the costumers pay the bills and the time when the corporation has the use of funds. Instead of having many accounts in various branches of corporation a major account should be only in the bank of concentration to minimize the size of float i.e. the different between the amount of deposit and the amount of usable cash in a bank.

Special Holding of Cash

Special holding of cash enables corporation to have sufficient funds that can be put to profitable use

Delaying Disbursements

Every corporation is to collect sundry debtors and account receivable as quickly as possible, but while making payment to sundry creditors and account payable it wants to pay as slowly as possible. The short, quick collection and slow disbursement accomplish the corporation with adequate cash on hand for longer period. Effective control of disbursement can result to faster turnover of cash whereas the underlying objective of collection is maximum acceleration. The objective on disbursement is to slow down payment as much as possible.

Cash Velocity

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

$$\text{Cash velocity} = \frac{\text{Annual sales}}{\text{Average cash balance}}$$

Minimum Cash Balance

Every corporation wants to keep minimum cash balance at bank either for the daily service or operation arrangements. Every bank calculated the average collected balance and account seems to be profitable if the total cost is less than total income. But in the practice the cash balance is the higher than cash in hands, it is because corporation always find it difficult to keep large funds with bank otherwise it may be misutilized or misappropriated kept in hand. (Ibid)

Using float

Cheque written by firm are not deducted by bank records until they are actually received by the bank, possibly a matter of several days the lag between the time the check is written until the time the bank received is known as float.

Transferring fund

A transferring fund is a system for moving funds among accounts at different banks. There are two principal methods wire transfer and electronic depository transfer cheque. With a wire transfer, funds are immediately transferred from one bank to another. With an electronic depository transfer cheque (DTC) arrangement in the movement of funds, an electronic cheque image is processed through an automatic clearing house. The latter, from a comparison, a wire transfer method looks costly.

Overdraft System

In this system, depositories may issue check requesting the excess payments then the balance. Banks automatically extend loans for deposition to cover the shortage. Most of the foreign countries use over draft system.

Factors Determining Cash Needs

Synchronization of Cash Flow

With a perfect synchronization of cash inflow and outflow of higher degree of predictability, Cash balance can be held to low levels. An example of synchronization demonstrates low cash flow. It can improve through more frequency requisitioning of fund to divisional office from the firm's central office. If funds are requisitioned once a month, we may now explore the possibility of requisitioning of funds on fortnightly or weekly or daily basic. Moreover, Effective forecasting can be achieved. It will enable the firm to economic on the amount of money. It is necessary to understand now that there are different types of float. We have seen that the float is the different between book cash and bank cash, representing the net effect of changes in process of clarity. The first type of float is disbursement float. As we write check, it declares book balance but does-not immediately change available balance; similarly, the collection float refers to the result of cheque received. This increases book balance. The net float is the overall different balance the firm's available and its book balance (Pradhan; 2004)

Short Cost

Another general factor to be considered in determining the cash need is the cost associated with a short fall in the cost needs. The cash forecast presented in the cash budget reveals period of cash shortages. Every shortage of cash, whether expected or unexpected involves a cost depending upon the severity, duration and frequency of the shortfall and the shortage of shortfall is called short cost. Including the short cost are as following. (Khan & Jenny; 2003)

- Transaction cost associated with raising cash to tide over the shortage. This is usually the brokerage incurred in relation to the sale of some short term near cash assets such as marketable securities.

- Borrowing cost associated with borrowing to cover the shortage those included items such as interest on loan, commitment, change and other expenses relating to the loan.
- Loss of cash discount that is a substantial loss because of temporary shortage of cash.
- The associated with duration of the credit rating which is reflected a higher bank charges on loans, stoppages of supplies, demand for cash payments refusal to sale, loss of image and the attendant decline in sale and profits.
- Penalty rates by bank to meet to shortfall in compensating balances.

Excess Cash Balance Cost

The cost of having excessively large cash balances cost. If large funds are ideal, the implication is that the firm has missed opportunities to invest those funds and has lost interest which it would otherwise have earned .This loss of interest is primarily the excess cost. (Khan & Jeni, 2003)

Procurement and Management

There are the cost associated with the establishing and operating cash management staff and activities. They are generally fixed and mainly accounted for salary, shortage, holding of securities and so on. (Khan & Jeni, 2003)

Uncertainty and Cash Management

Finally, the impact of uncertainty of cash management strategy is also relevant cash flows cannot be predicated with complete accuracy. The first requirement is a precautionary cushion to cope with irregularities in cash flows, unexpected delays in collection and disbursements, default and unexpected cash needs.

The impact of uncertainty on cash management can however be mitigated through improved forecasting of tax payment, capital expenditure, dividend, and increased ability to borrow through over draft facility. (Khan & Jeni; 2003)

Technique for Effective Cash Management

For the effective cash management there should use various techniques which give favorable result on it. They are as follows:

Cash Planning

Cash planning is a technique to plan and control the use of cash. It protects the financial condition of the firm by developing a projected cash statement from a forecast of expected cash inflow and out flow for a given period. Cash plan are very crucial in developing the overall operating plans of the firm. (Pandey; 1999)

Cash Forecasting and Budgeting

Cash budgeting is the most significant device to plan and control cash receipt and payment. A cash budget is a summary statement of the firm's expected cash inflow and outflow over the projected time period.

Cash forecast needs to prepare cash budget generally covering period of one year or less as short term forecast. The important function of carefully developed short term forecast is to:

- i) Determine operating cash requirement.
- ii) Anticipate short term financing and.
- iii) Manage investment surplus cash methods of short term forecasts.

Receipt and Disbursement Method

The primary aim of receipt and disbursement forecast is to summarize those flows during a predetermined period. In case of those companies where each items of income and expenses involve flows of cash; this method is favored, to keep a close control over cash. (Pandey; 1999)

Adjusted Net Income Method.

This method of cash forecasting involves the tracing of working capital flows. It same time Calles the sources and use approach. There are two objectives of the adjusted net income method. They are to project company's need for cash at a future date and to show whether the company can generate the required fund internally, and if not how much will have to be borrowed or raised in the capital market. It is a projected cash flow statement one popularly used method of projection working capital is to use ratios relating account receivable and inventory to sales. (Pandey; 1999)

Sensitivity Analysis

One useful method of getting insights above the variability of cash flow is sensitivity analysis. Cash budget can be prepared under three sales condition, they are optimistic, most probable and pessimistic. Knowledge of the outcome of extreme expectation will help the firm to be prepared with contingency plans.

Cash budget prepared under worst condition will establish to be useful to management of face those circumstances. (Pandey; 1999)

Long Term Cash Forecasting

Forecasts, those extending beyond one year are considered long term cash forecast. It can be used to evaluate the impact of new product development or plant acquisition on the firm's financial condition three or more years in the future. The major uses of long term forecasts are as:

- To indicate as company's future financial needs especially for its working capital requirement.
- To evaluate proposed capital projects. It pinpoints the cash required to finance those project as well as the cash to be generated by the company to support them.
- To improve corporate planning long term cash forecast compel each division to plan for future and no formulated project carefully

Managing the Cash Flow

The flow of cash should be properly managed. The cash inflows should be accelerated while, as far as possible, the cash outflow should be determined at the optimum level.

Optimum Cash Level

The firm should decide about the appropriate level of cash balances. The cost of excess cash and danger of cash deficiency should be matched to determine the optimum level of cash balances.

Investing Surplus Cash

The surplus cash balance should be properly invested to earn profits. The firm should decide about the decision of such cash between alternative short-term investment opportunities such as bank deposits, marketable securities, or incorporate lending.

Cash Management Models

There is different type of analytical model for cash management:-

- i. Baumol's models
- ii. Miller-orr model and simulation
- iii. Orgler's model
- iv. Montecarlo

Baumol Model

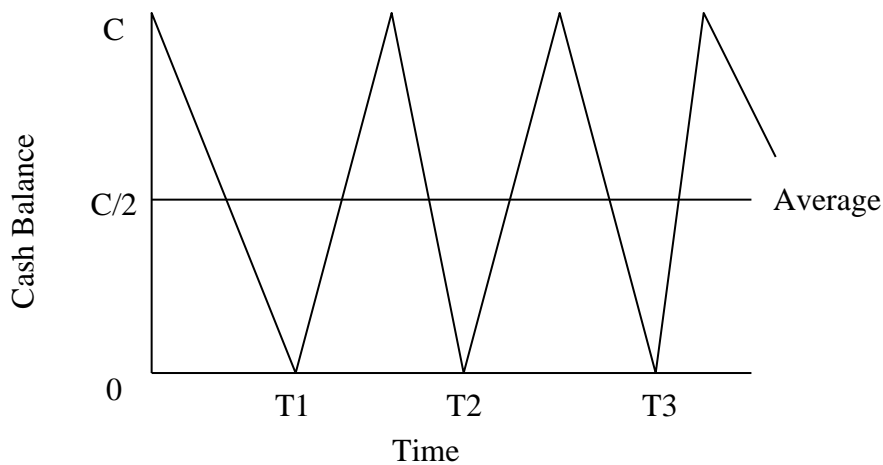
The Baumol's Model cash management model provides a formal approach for determining a firm's optimum cash balance under certainty. It considers cash management similar to an inventory management problem such as, the firm attempts to minimize the sum of the cost of holding cash (inventory of cash) and cost of converting marketable securities to cash. (W.J Baumol; 1952)

The Baumol's Model makes the following assumptions

- The firm is able to forecast its cash need with certainty
- The firm's cash payments occur uniformly over a period of time.
- The opportunity cost of holding cash is known as and it does not change over time.
- The firm will incur the same transaction cost whenever it converts securities to cash.

Let's assume that the firm sells securities and starts with a cash of a rupee. As the firm spends cash, its cash balance decreases steadily and reaches to zero. This firm replenishes its cash balance to "C" rupees by selling marketable securities. The pattern continues over time. Since the cash balance decreases steadily, the average cash balance will be $C/2$ this pattern is shown in fig.2.1.

Figure No 2. 1 Baumol's Model for cash balance



The firm incurs a holding cost for keeping the cash balance. It is an opportunity cost. That is, the return foregone on the marketable securities. If the opportunity cost is 'K'. Then the firm's holding cost for maintaining average cash balance is as follow:

$$\text{Holding cost} = K (c/2)$$

The firm incurs a transition cost wherever it converts its marketable securities to cash. Total number of transaction during the years will be total funds requirement. T, dividend by the cash balance C i.e. T/C , the per transaction cost is assume to be constant. If per transaction cost is "c" .Than the transaction cost will be.

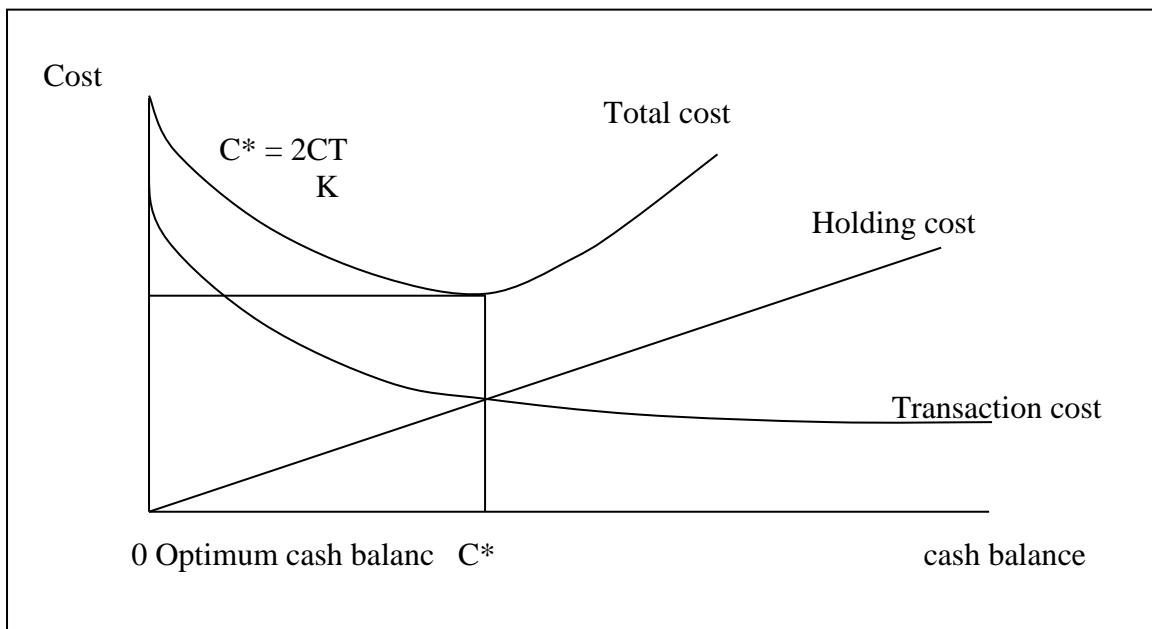
$$\text{Transaction cost: } c (T/C)$$

The total annual cost of the demand of cash will be:

$$\text{Total cost} = k(C/2) + (T/C)$$

Optimum level of cash balance, when the holding cost is increases. However, the transaction cost reduces because with increasing "C" the number of transaction will decline. There is a tradeoff between the holding cost and transaction cost.

Figure No 2.2 Cost Trade off Boumol`s Model (1952)



Source-Pandey IM,Financial Management(1979)

Cost Trade off Boumol's model

The opportunity cash balance C* is obtained when the total cost is minimum. The formula for the optimum cash balance is as follow:

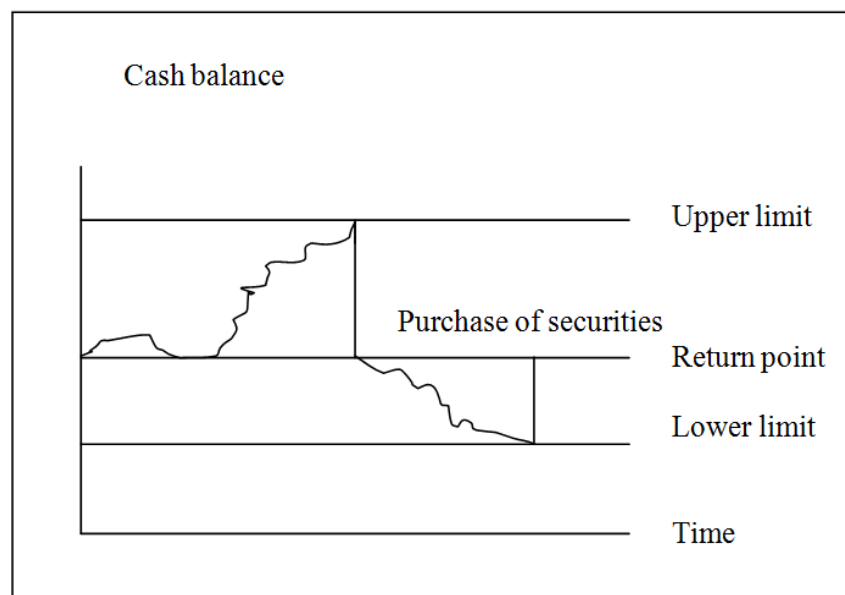
$$C^* = \frac{\sqrt{2CT}}{K}$$

When C* is the optimum cash balance, C is the cost per transaction. T is the opportunity cost of holding cash balance. The optimum cash balance will increase with increase in the per transaction cost and total funds required and decrease with opportunity cost.

Miller-orr Model (1966)

The limitation of Baumol Model is that doesn't allow the cash follows to fluctuate. The Miller- Orr model overcome this shortcoming and allows for daily cash flow variation. It assumes that net cash flows are normally distribution with zero value of mean and a standard deviation (σ). Miller-Orr model provides two control limits. One is upper limit and another is lower limit from return point. When the cash balance hits the upper limit, the firm has too much cash and should buy enough marketable securities to come back to a normal level of cash balance. When the cash balance hits the lower limit. It sells sufficient marketable securities to bring the cash balance back to the normal level.

Figure No 2.3 Miller – Orr Model



Source-Miller-Orr (1966)

The difference between the upper limit and lower limit depend on following factors.

- The transaction cost (C)
- The interest rate (i)
- The standard deviation (σ) of net cash flows
- Distance upper limit and lower limit called (z)

$$\text{Upper limit} - \text{Lower limit} = \frac{\frac{3}{4} \times \text{Transaction cost} \times \text{cash flow variance}}{\frac{(\text{Interest rate})1}{3}}$$

Or

$$Z = \frac{\frac{3}{4} \times \sigma Z}{i/3}$$

When upper limit and lower limit are far from each another, Transaction cost is higher and cash flows show greater functions. The limit will come closer as the interest increases. Z is inversely related to the interest rate. It is noticeable that the upper control limit is three times above the lower limit and the return point lies between the upper and the lower limit, e.g.

$$\text{Upper limit} = \text{lower limit} + 3z$$

$$\text{Return point} = \text{Lower limit} + z$$

The net effect is that the firms hold the average cash balance equal to:

$$\text{Average cash balance} = \text{Lower limit} + 4/3z$$

Model is more realistic since it allows variation in cash balance within lower and upper limits. The financial manager can set the lower limit according to the firm's liquidity requirement. The past data of the cash flow can be used to determine the standard deviation of net cash flow. Once the upper and lower limit is set, managerial attention was needed only if cash balance deviates the limits.

Orgler's Model (1970)

In this model an optimum cash management's strategy can be determined through the use of multiple linear programming models. This model can comprise three sections:

- i) Selection of the appropriate planning horizon.
- ii) Selection of the appropriate decision variable.

iii) Formulation of the cash management strategy itself.

The advantage of linear program model is that it enables coordination of the optimum cash management strategy with the other operations of such as production and with less restriction on working capital balance. This model can be used taking twelve month data's. That means one year's period data provides simplicity basically. It has four sets of decision variables, which influence cash management of a firm. It must be incorporated into the linear programming model of the firm. These are

- i) Payment schedule.
- ii) Short term financing.
- iii) Purchase and sales of marketable securities.
- iv) Cash balance itself.

Orgler's objective function is to minimize the horizon value of the net revenues from the cash budget over the entire planning period. Using the assumption that also revenue generated is immediately re-invested and that may cost immediately financed. The objective function represents the value of the net income from the cash budget at the horizon, "by adding the net returns over the planning period". Thus, the objective function recognizes each operation of the firm that generates cash flow or cash out flows as adding or subtracting profit opportunities for the firm cash management operations. In the objective function decision variables which cause inflows, such as payment and receivable have positive coefficient .While decision variables generate cash outflows, such as interest on short- term borrowing have negative coefficient. The purchase of marketable securities would for example produce revenue and thus have a positive co- efficient while the sale for those securities would incur conversion cost and have a negative co-efficient.

The model can be institutional and policy constraints. The institutional constraints are imposed by external factors e.g. bank requires comparative balance. Policy constrains are imposed by cash management of the firm itself, for e.g. Financial manager may be prohibited from selling securities before maturity. Either constraint can occur in the model during one monthly period or over several or all the months in the one year planning horizon.

An example:

Objective Function: maximization of profit = $a_1n_1+a_2n_2$

Subject to constant: b_1X_1 (production functions)

$b_2 X_2$ (contrition)

$C_1X_1 + C_2X_2 \leq$ cash available constraint

$\delta n_1 + \delta n_2 \geq$ current assets requirement constraint

Very important feature of the model is that it allows the financial manager or accounting manager to generate cash management with production and other aspects of the firm.

Monte Carlo Simulation

Although the Boumol model and other theoretical model provides insights into the optimum cash balance. They are generally not practical for use. Rather, firm generally set their target. Cash balances base as "some safety stock" of cash that holds the risk of running out of money to some acceptability, Low level. One commonly used procedure is Monte Carlo Simulation. Sales and collection are the driving forces in cash budget and of course, are subject to uncertainty. In the cash budget we use expected value for sales and collection as well as for other cash flows. However, it would be relatively easy to use Monte Carlo Simulation to introduce uncertainty .If cash budgets is constructed using a spread sheet program with Monte Carlo add in software, then the key uncertain variable could be specified as continuous probability distribution rather than point value.

Motives for Holding Cash

The firms need to hold cash may be attributed to the following three motives

- i) Transaction motive.
- ii) Precautionary motive.
- iii) Speculative motive.

Transaction Motive

The transaction motives require a firm to hold cash to conduct its business in the ordinary course. The firm needs cash primarily to make payment for purchase, wages, other

operatively expenses, taxes, dividend etc. The need of hold cash would not arise if there were perfect synchronization between cash receipts and cash payment i.e. enough cash is received then the payment has be made but receipt and payment are not perfectly synchronized. For those period when cash payment exceed cash receipt, the firm should maintain some cash balance to be able to make required payment for transaction propose. A firm may invest its cash marketable securities. Usually the firm will purchase securities whose maturity correspondents with some anticipated payment, such as dividend or taxes in future.

Precautionary Motive

Protection of corporation in grave emergencies is another strong motive to hold cash. This is the age of uncertainty and no one can say what will happen as labors strike may take eventually or a machine may break down. Competition may bring new techniques and display new product, Government may immediately change taxation and industrial policies. So in each of this case, Corporations have to watch continuously, and for that cash has to be mentioned to meet each of these emergencies.

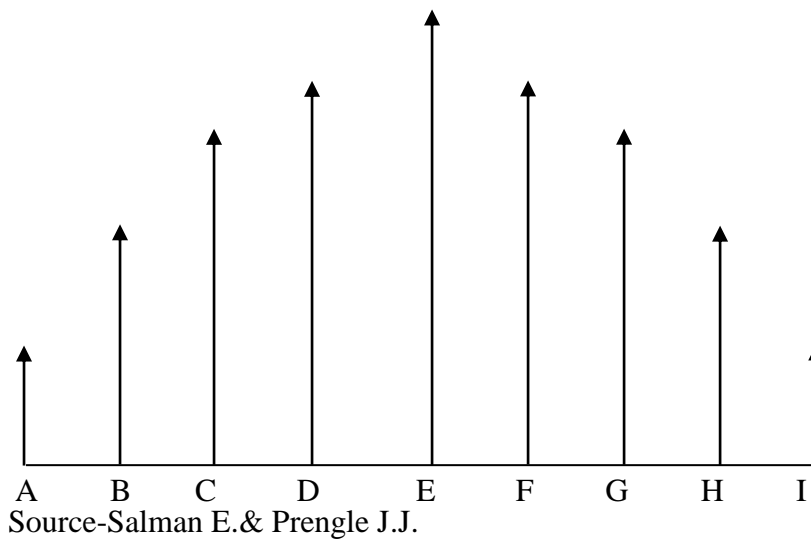
Speculative Motive:

Very often business concerns especially retail concerns need more cash to purchase large stocks and hoarded them up, when that immediately after harvest such crops should be at higher price. But for the corporation whose motives are to provide goods and services for benefit of public. They do not hold cash for speculative motives

Cash Cycle

The cash cycle refers to this process by which cash is used to process material from which goods are produced and sold to customer, bills are paid later. The firm receives cash from customer and the cycle repeated itself. The cash cycle involves several steps along the way as cash flow from the firm accountants as show as below.

Figure No 2.4 Cash Cycle



Details of Cash Cycle

Where,

A = Material order

B= Material received

C= Payment

D= Cheque clearance

E= Goods sold

F= Costumer mail payment

G= Payment received

H= Cheque deposit

I= Fund collected

In addressing our resolve to the cash management strategies we are concerned with the time period in stages B,C,D and F,G,H,I .It may be mentioned that a firm has no control over the time involved between stages A& B the lag between D and E is determinate by the production process an inventory policy. The time period between E and F is determinate by credit terms and payment policy of the customer. This hypothetical example explains that the corporation needs 60 days or two months to collect funds from the beginning of material ordered to have ultimate cash. It takes 14 days to receive ultimate cash. it takes 214 days to receive material from supplier and adding 20 days for payment and still two days assumed for clearing the cheque. Sales of inventory take 48 days to have completed clearing of stock and customer might pay only after 28 days by mailing cheque. More over six additional days are taken for payment received cheque deposit and ultimate collection. This is application only

for direct selling of customer's goods but in a manufacturing concern the time lag may be still greater.

2.3 Review of Literatures

In the concern of the cash management there are few researches written on different Nepali Corporations and Industries, Various journals reports and articles have been published on different dates regarding cash management. There are some text books which are related to the cash management. It is necessary to review the related literature of that research which has been written in different times.

2.3.1 Review of Books

“Cash management involves managing the money of the firm in order to maximize cash availability and interest on any ideal funds” (James C Van Horn). In working capital management, cash is important aspect and the basic input, need to keep the business running on continuous basis so the cash should be managed efficiently in order to keep the firm sufficient liquidity and to use excess cash in some profitable way. The firm should keep sufficient cash, neither less nor more cash, which will not hamper the firm manufacturing and operation, while excessive cash will simply remain ideal, without contributing anything towards the firm's profitability. Thus, major function of the financial manager is to maintain a sound cash position.

Simons & Kerrenbork , (1964) expressed that cash is more often than other assets, is the items involved in business transaction. This is due to nature of business transaction, which includes a price and condition calling for settlement in terms of medium of exchange. In striking contrast to activity of cash it is unproductive in nature .Since cash a measure of value; it can't expand to grow unless it is converted into other properties. Excessive balances of cash on hand are often referred to as “ideal cash”. To be most useful to the business enterprises, cash must be kept moving.

According to Betty (1972) Cash is only one constituent of what is essentially a combination of a business resources. It is the part of working capital and it provides the means of earning a profit investment for business. The objectives should aim to obtain an optimum level for each

component of current assets and a smooth and rapid conversion of those assets to cash both of those lead to improve earning power. He again suggested that if care is taken for crash program for improving. Cash may have unexpected consequence .In the short term it will be possible to cut back expenditure on marketing and other function ,but future sales will probably suffer and consequently ,there will be further determination in cash flow. Further he defined cash management as the process involved in the effective planning and control of cash requirement of business.

Jerry E.Goldress and Reger W.Christon(1976) state that “ while cash situation is unique, the one common thread that runs through all corporation in crises is a lack of liquidity”. Current assets which are consist cash balance, inventory, account receivable and other short term assets during the operating cycle as expected to extend not more one year must be efficiently utilized to match the inflow and outflow of cash. However it is expected that too much investment in current assets are not desirable as there is a constant danger of losing the opportunity cost in the instead of earning gain.

In the concern of cash management, Weston and Brigham(1978) have given some theoretical insight in the concern of management (cash management) after various research study on it .Cash management in any enterprise and naturally to this study as well the bond conceptual finding of their studies provides sound knowledge and guidance for the holding of cash specific advantage of adequate cash, synchronization of cash flow ,cheque clearing and expending collection ,using float ,overdraft system, cash management cost ,determining the minimum cash balance ,marketable securities substitute for cash criteria for selecting securities investment alternative ,compensating balance management of account receivables and payables, credit policy, evaluation change in credit policy.

Hampton (1989) has given more suggestion for effective management of cash .He explains that net working capital is the measure of liquidity, which is defined as the adequacy of near term cash to meet the firm’s obligation. The highly liquid firm has sufficient cash to pay its bills when due .The investment of excess cash, minimizing of inventory, speedy collection of receivables and elimination of unnecessary and costly short term financing all contribute to maximization the value of firm. In a periled of high interest rate, costumer may be slow paying their bills, a fact that will be cause an increasing in receivable. If the level of cash is linked to the level of sales, variable working capital may be changed.

John, J. Hampton (1990) described as in a financial sense, The term cash refers to all money items and sources that are immediately available to help pay a firm bills. On the balance sheet, cash assets include deposit in financial institution and cash equivalent in money marketed funds or marketable securities. All highly liquid short term securities are treated as cash. This is the case because; most government and corporate securities can be liquidating in a matter of hours or minutes through the telephone call.

Pradhan S. (1992) made study on working capital policy of Manufacturing Public Enterprises (MPES) in Nepal. He sought to sort out the problems of low economic performance and poor financial management in MPES. He examined whether or not there was any association between the various aspects of working capital policy in financial management and poor financial performances of MPES and also the lack of appropriate assets mix policy in MPES. The major findings of the policy are: almost all selected MPES has followed a moderate working capital approach. The holding of cash and receivable in relation to total assets was increased.

- The selected MPES had sufficient liquidity.
- There are improvements in the use of the current assets in selected MPES. There was high turnover of cash and receivable in comparison to inventory.
- Capacity utilization was the significant factor while, sales cash flow cycle and interest rate were not significant in working capital determination.

At the end of the his study, he made some suggestions for the improvement of working capital management and efficacy in the MPES. The suggestion for aggressive sales promotion policy indicated that need too much production and demand schedule, adoption of standard costing as well as marginal costing technique, formulation of sound working capital policy and trading to financial employees to acquaint about latest development in the area of working capital management.

Jain and Narang (1993) have described about cash management. They say that cash is critical component of working capital of a concern. Cash like blood stream of human body, give strength to business unit. He explained that cash is ultimate resources for a business. So, management of each business unit should endeavor to secure large cash at the end of each

working capital cycle than what it had at the beginning of working cycle. Further the important objective in managing cash should be trade off liquidity and profitability in order to maximize profits. By keeping large amount of cash, the firm is more able to meet its obligation when they fall due and the risk of technical insolvency is reduced. However cash is non-earning assets, so unnecessary cash should not be kept at hand; Then, The optimum required continuing operation of the business efficiency. Liquidity and profitability must be balanced in such way that the organization retains its liquidity and at the same time maximizes its profitability. They also stressed that business transaction, without involvement of cash is mythical in this monetary world. Today, the importance of the cash management is organized by all segments of organizational activities. If some of departments are handled independently without considering their implications of cash management, the conflicting interest of the department are bound to create resource problem. The study of cash management is therefor considered as an integrated approach to management science.

Alan C.S. (2000) expresses his view as centralized cash management typically involves the transfer of an affiliate's cash in excess of minimal operating requirement into a centrally managed account or cash pool. All precautionary balances are held by the parent or in the pool. As long as the demand for cash by the various units are reasonably independent of each other, centralized cash management can provide an equivalent of protection with a lower level of cash reserve.

For the cash management, Pandey,I.M.(2009) described some conceptual ingredients which are based on his various research studies. It is also helpful for this study indeed. He described various aspect of cash management, which are fact of cash management, cash planning, cash forecasting and cash budgeting, motives for holding cash, determining the optimum level of cash balance, investment in marketable securities, managing of cash flow, and controlling disbursement.

2.3.2 Review of Related Thesis

In this section, the review of thesis related to the cash management has been considered. Regarding working capital management and cash management, various studies have been carried out, previous researchers have given various opinions on their thesis, among them some thesis's are taken as review on this study.

Shrestha, M.K. (1980) concluded that the cash management of corporation is significance enough to have the best use of ideal cash balances and to take advantage from the opportunity interest in cash velocity determined by sales volume and turnover of the assets. Corporate manager must be familiar with the cash cycle to undertake measure for improvement of collection and disbursement. The various motives for the holding cash and determination of safely level based on normal periods and peak periods must be adequately considered. The cash flow balance of corporation can be sufficiently improved by increasing volume of sales and turnover of total assets. But on the whole, measure should be taken to have efficient collection combined with disbarments.

Another study made by **Giri, R. (1986)** a case study in working capital management. He found that the goal of working capital and manage each of the firm current assets is to manage each of the firm current assets efficiently in order to maintain the firm liquidity while not keeping any assets at to high level.

Sharesrta, S, L. (1986) accomplished the study on the title of working capital management of “Bansbari Leather Shoe Factory”. He suggested, the factory to operate with setting certain sales target and make regular inspection to find out the excess or deficit of current assets and to adopt suitable credit policy with responsible discount and should have appropriate cash balance and working capital.

Another study was done by **Bajracharya, S. (1990)** regarding cash management of Nepalese Public Enterprises and he states that ‘‘the success of cash management depends on the ability of an enterprise to cut down its current cash balance to the level of its operation. Managing current assets with minimum cash balance. The enterprise is benefited from the use of its own source of fund. Considering the un-productiveness of ideal cash, it may be desirable to reduce the cash balance to zero level thereby discharging the short term liabilities and investing the balance in marketable securities, so as to maximize the long profit goal. However, short term contingencies may give rise to the pressing need for additional cash on hand .Before determining the additional cash balance. It is very important to determine how much cash balance the firm should possess for its normal operations. The size of cash requirement for normal operation is indicated by cash inflow and outflow. Research on cash management is an essential component of study in the field of financial management.

Thapa, P. (2002) in his study on cash management of Salt Trading Corporation Limited analyzed and recommended in the following way The Corporation should have proper cash planning to estimate the cash receipts and payment.

- This helps to minimize the problem of excess or deficit cash balance.
- Lack of knowledge of modern financial management tools and technique among existing employee.
- Corporate to determine appropriate credit policy to maximize account collection and minimize account receivable by selling only in cash terms.
- Corporation should manage his surplus cash funds for profitable opportunities. This helps to maximize the corporation cash balance.

The above review of literature clearly pointed out that cash management is the major problem in Nepalese enterprise. But the success and failure of an enterprise, is greatly dependent upon the efficient management of cash. Being a trading corporation established in Nepal, the efficiency of the STCL should be analyzed. For study has been made for the analyzing of cash management and profit planning in STCL.

Rayamajhi, (2006) did study of cash management of Nepalese Commercial Banks. She has studies cash management of 5 commercial banks i.e. Nabil Bank, Himalayan Bank Ltd, Standard Chartered Bank Nepal Limited, Everest Bank Limited and Nepal SBI bank Ltd. Her study mainly focused on over all cash management of selected bank with the examination of their demand for cash. She also tried to focus and analyses the cash disbursement needs, minimize funds committed to cash balance and access the credit policy adopted in Nepalese commercial bank and their impact and relationship to each other.

Her finding mainly revealed following things:

-Banks under study have the practice of preparing cash budget annually, monthly and weekly with the help of ratio analysis, cash budget method, projected balance sheet method and adjusted net income method. However, very few banks treated it as formal document.

-The study showed that there has been no uniformity among the banks with regard to cash balance, cash turnover, current ratio, account receivable, average collection period, A/R to cash/bank balance, investment in cash/bank balance on current assets and total assets, c cash/bank balance to current liabilities.

-Cash management in the banking sector of Nepal is primarily based on the traditional practices, which lack in a scientific approach.

To the end, she had made some suggestion for the improvement of cash management of selected commercial banks. She suggested to do cash planning and cash budgeting in a formal basis so as to project cash surplus or cash deficit for a period not exceeding one year and broken up into shorter intervals. Also she has suggested appointing cash planning manager or experts to upgrade the current financial management skills. She has also emphasized on paying much attention towards collection of account receivable and decrease average collection period for effective cash management.

Chataut, B.R. (2008) has done research on NTC's cash management. He has mainly done research on shortage or excess of cash in the NTC. Also he tried to analyze the gap between budgeted and actual sources of cash. His major findings are as follows:

The actual cash balances were higher than approved budgeted amounts. It shows that there was no effective implication of budgeted amount.

Nepal Telecom prepared and approved deficit budget each year from 2056/2057 to 2061/2062. When opening balance was not included in source side of budget total budgeted cash uses was always higher.

Cash management involves the following aspects:

- Cash Planning.
- Controlling Cash Inflows.
- Controlling Cash Outflows.
- Determining Optimum Liquid Balance.
- Investing Surplus Cash.

Pandey,S. (2009) in conclusion, it can be said that cash management is an important part of the financial decision making variable. Many factors or determinants such as nature of business, level of sales, credit terms, advance payment system, quality of customers, economic condition etc. have to be considered in cash management. Apart from the level of purchase, method of creating cash management, establish of credit terms, types of credit policy, motives for holding cash, efficiency of cash management, different technique of cash management etc.

Shing, G.K. (2009) study of DNPL and say, many factors or determinants such as nature of business, level of sales, nature of products, quality of customers, competitive position economic condition etc. have to be considered in cash management. The scope of cash management is also related with level of purchases, availability of goods in the market, credit terms, from the suppliers to the buyers, types of credit policy, motives for holding cash cycle and cash budget etc.

Concluding Remarks and Research Gap

Thus, after review of related literature, it can be said that cash is the measure factor like blood in life. Cash is not only means for established any business firm but it is required for smooth operation of business. Every activities of business depend on the cash available. Earning of profit or loosing of property is guided by the management of cash. Every element, related with cash like current assets. Fixed assets, working capital, cash outflow, cash inflow, motives of cash holding, collection and disbursement are mainly related with the cash management. If any elements of those items get loose, it gives negative effort to hold business. For the proper cash management, pre-plans and periodical analytical examination using related statically and financial (accounting) tools. The examination makes organization of the cash management strong and effective.

Concluding Remark regarding STCL on this study is as follow.

- The corporation has not any standard for cash balance.
- The corporation has not sales plans, which fluctuated the cash management.
- STCL haves well account receivable policy which shows around 90 percent Of account receivable, it is favorable for STCL.
- STCL haves poor condition of liquidity position around five percent. This results weak to STCL.
- STCL haves invested on fix assets. This investment helps to develop infrastructure of STCL. It expands activities for corporate development.

Thus STCL haves both strength and weakness from point of view of cash management.

Many researchers and scholars have given their conclusion regarding “Cash Management” by analyzing different element of cash variable in different company. They suggested for planning of cash management and cash budget. But there is no any studies carried out from view point of strength and weakness. So, researcher carried out this research to find out the strengths and weakness of cash management of STCL by using financial and statistical tools.

CHAPTER-THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is the way to solve systematically about the research problem. It helps to analyze, examine and interpret various aspects related to research works such as cash budgeting, sales budgeting, purchase plans, credit policy, collection control and other aspects related to cash management in this research work. Various statistical techniques are applied in the research methodology. Research methodology is followed to achieve the objectives of the research paper. The major contains of research methodology followed in this study are as follows.

3.2 Research Design

The research design in this study is analytical as well as descriptive approach. Research design in this study followed is basically a historical and evaluative one. This study is to evaluate the cash management of STCL. This study attempts to make comparison and to establish relationship between two or more variables. So it is termed as analytical and descriptive study which facilitates the assessment. Researcher collected ten years data (from 2056/57 to 2065/066 F/Y) of STCL and tabulated using different statistical as well as financial tools to find out needed results.

3.3 Population and Sample

All those Nepalese listed Public Trading Company were taken as population of study and sample selected for the study is only one Salt Trading Corporation Ltd.

Salt Trading Corporation Limited

Salt Trading Corporation Limited was established in the year 2020 Bhadra 27th B.S (August 1963 A.D), under the joint public private ownership, with the initial capital structure of Rs 200000, Rs 100000 and 100000 Invested by HMG, NTC, and common people. Capital

structure of the F/Y 2065/66 authorized capital Rs 10 crores, paid up capital Rs 2 8537500 and issued capital Rs 10 crores. Distribution and services were able to earn sufficient profit, growth of assets and extension of additional business.

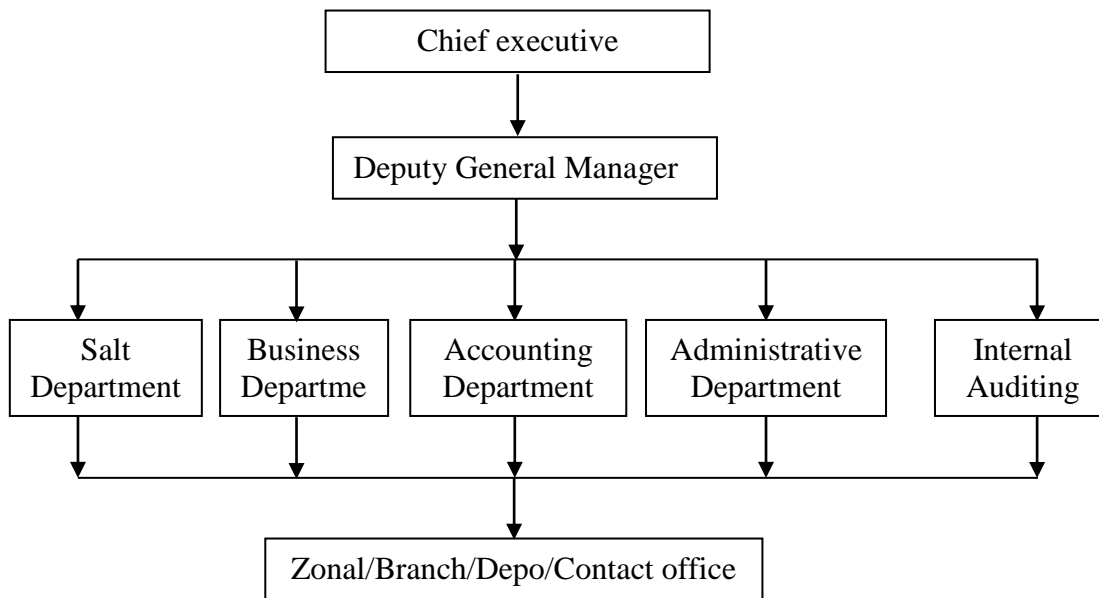
Now a days STCL is running their trading activity import, export, producing, packaging of goods and supplying which is boost up policy is taken by the state liberal economy.

The major commodities which are under the trading of STCL are as salt (Iodide) sugar, tea, wheat, lentils, grams, maize, milk, oils, seeds, fresh and processed fruits, cement and coffee etc. STCL has the equity in many pioneering and leading industries in country such as: Khadya Udyog Ltd, Nepal Vegetable Ghee Udyog Ltd, Butwal Spinning Mills Ltd, Gorkhali Rubber Udyog Ltd, Morang Sugar Mills Ltd, Gharelu Hastakala Udyog Ltd., and Metro Kathmandu Gas Industries Ltd.

Organizational structure and networking

STCL has expended its working field to provides service and increase its trading activity on different parts of Nepal to made assessable as possible as their capacity .On the study period it was found that STCL has extended all over of 75 district with 93 branch, sub-branch, contract office and more than 6000 dealers through which STCL has maintained the distribution and providing its service with reasonable price.

Figure No 1.1 Organizational Structure of STCL



Source; STCL Annual Report, 2065.

Thus it can say that STCL has well equipped network to operate its trading activity, moreover, it has also skilled and experience man power although having lack of the modern new developed managerial concept and technology .STCL has equipped laboratories and warehouse with capacity of storing 75 metric tons of salt other goods .Hence corporation is capable to operation their trading activity within reasonable price throughout of country.

Main Objectives of STCL

STCL was established with setting main objectives to fulfill the requirement of the common people by selling its goods in a reasonable price. Government was build the foundation of the trading and corporate sector, when there were private sectors was not coming effectively to fulfill public requirement on the concern of public welfare.

Some core objectives are listed as below:

- To provide the daily necessary things to the general people in the reasonable price.
- To carry out the export and import business.
- To act an agency for domestic as well as foreign companies.
- To make investment in new as well as old industries.

- To import and distribute chemical goods, fertilizer, sugar and other consumable commodities.

Although STCL have already determined primary objectives, government attend for other activity while conclude to overcome the open market for daily used commodities black-market or artificial shortage.

Major Policies and Future Plans.

Feasibility study for the establishing and operating to the L.P.G plant. Cement Factory. Open the sales counter on major city. Reduction trading debt. Expatiation international relation and trading activity. To accept government policy and flow it.

3.4 Study Period

This study covered only past ten years, data of fiscal years from 2056/57 to 2065/66 and on this basic. Strength and weakness of the managerial technique and planning regarding cash management other related things of STCL were identified.

3.5 Nature and Source of Data

The data used in this study is basically secondary in nature. Secondary data haves been taken from annual report which comprises balance sheet and profit and loss account statement. Thus, this is the main source of data. Some data and required information were taken from previous thesis, website of STCL of related areas.

3.6 Data Collection Method

The data used in this study is mainly secondary data for analysis and examine accounting tools and statistical tools. The researcher collected annual reports of STCL from central office Kalimati as secondary data. Booklets and brushes from STCL. Previous study conclusion, recommendation from central library of T.U, Kirtipur. Required information from STCL officer and other staff. Website research and finding. Newspaper and magazine as related subject of study.

3.7 Tools and Technique of Analysis

There are various methods and tools which were used to study, analysis and explain to the research matter. On the concern subject of cash management of Salt Trading Corporation Ltd, used of different statistical tools, financial and accounting tools for the analysis of this study.

3.7.1 Analytical Tools

This study found out cash management of STCL. For the purpose of these analyses, financial tools, techniques and variables were used. These were as follows,

3.7.2 Ratio Analysis

i) Cash Turnover Ratio (CTR)

It was computed by dividing sales by cash in hand and bank, it measures the speed with which cash moves through on enterprises operations.

$$\text{Cash turnover ratio} = \frac{\text{Sales}}{\text{Cash in hand and Bank}} = \dots \dots \text{Times}$$

This ratio shows that the time of average of cash and bank balance over during the year.

ii) Account Receivable Turnover (ART)

This ratio is computed as:

$$\text{Account Receivable Turnover Ratio} = \frac{\text{Sales}}{\text{Total Receivable}} = \dots \dots \dots \text{Times}$$

It indicates the number of times receivables turn over during the years. It measures the productivity of receivable investment. The higher ration indicates the higher amount of working capital and vice versa. Complimentary of this ratio average collection period ratio average collection period ratio which is computed as:

$$\text{Account Receivable Collection Period} = \frac{\text{Days in year (365)}}{\text{Receivable Turnover}} = \dots \dots \dots \text{Days}$$

In general high turnover period and short collecting period is profitable.

iii) Analysis of Current Ratio (CR)

This ratio is computed by dividing current assets by the current liability:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liability}} = \dots \dots \dots \text{Times}$$

Where,

CA = cash in hand and bank, short term marketable securities, A/R, debtors, investor, prepaid expenses, accrued income etc.

CL= bill payable, creditors, short and this period load, tax payable, dividend payable, advance income and bank overdraft etc.

This ratio measuring ability of the corporation to meet its short term financial obligations.

This ratio examine the short term solvency i.e. liquidity position of the firm , the higher current ratio shows the large amount of rupee available per rupee of current liability .the more is the firm's ability to meet current obligation and the greater in the safety of found of short term creditor . The ideal current ratio is lesser the ratio indicates the lower liquidity position of the firm.

iv) Cash to Current Assets Ratio

It is calculated by dividing cash and bank by the total current assets.

$$\text{Cash to Current Assets} = \frac{\text{Cash and Bank}}{\text{Current Assets}} = \dots \dots \dots \text{Times (or \%)}$$

These ratios optimal criterion is 6-8 times of ratio, if higher, then indicate excess amount of the cash holding and if lower ratio shows shortage of cash on the corporation.

v) Cash to Working Capital Ratio

This ratio is calculated by dividing to cash and cast at bank by the total working capital.

$$\text{CA to WC ratio} = \frac{\text{Cash and Bank}}{\text{Total working capital}} = \dots \dots \dots \text{Times (or \%)}$$

This ratio shows that the relationship between cash available sufficient or deflect on the respect of working capital. If higher or positive ratio show the sufficient cash available to invest short turn investment .It will be capable to operate to operational expenses.

vi) Current Assets to Fixed Assets Ratio

$$\text{CA to Fixed Assets Ratio} = \frac{\text{Total Current Assets}}{\text{Total Fixed Assets}} = \dots \dots \dots \text{Times (or \%)}$$

This ratio shows that the investment is made on which proportion.

V) Stock Turnover Ratio (STR)

It is calculated as dividing cost of goods sold or net sales by average investment or inventory

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Average Inventory}} = \dots \dots \dots \text{Times (or \%)}$$

$$\text{Or, Stock Turnover ratio} = \frac{\text{Net Sales}}{\text{Inventory}} = \dots \dots \dots \text{Times (or \%)}$$

This ratio measures the velocity of conversion of stock into sales. High stock turnover indicates efficient management and required less amount of capital required less amount of capital required to inventory and low stock then over indicates vice versa.

$$\text{Inventory Turn Over Period} = \frac{\text{Days in year (365)}}{\text{Inventory Turn Over Ratio}} = \dots\dots \text{Days}$$

It indicates that the gap of the period, in which the inventory is to be sold in each time of the conversion.

viii) Analysis of Cash to Current Liabilities.

It is computed by dividing cash and bank balance by current liabilities

$$\text{Cash to Current Liability Ratio} = \frac{\text{Cash and Bank}}{\text{Current Liabilities}} = \dots \text{Times (percentage)}$$

It indicates the amount of cash (in percentage) available to pay the current obligation of the firm. Mordantly high ratio indicates goods liquidity. Too high or too low ratio are unfavorable for the firm, since too high indicates excess cash balance held ideal, too low ratio means the firm unable to meet current liability. Lowers percentage is favorable then high percentage.

3.7.3 Statistical tools

i) Graphs and Diagrams

Simple Bar Diagram is a diagram for only one variable. It is the most simple and frequently used for the comparative study of two or more values of a single variable.

It will be constructed single variable (sales, profit, cash balance at the ending of year etc.) on the year basis in amount or percentages.

A clear picture of the variation in the value of variable is much more easily obtained by the diagram and graphs then the value given at the table.

ii) Arithmetic Mean

A set of observation is the sum of all the observation divided by the number of observation, it is also known as the average.

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

Where, \bar{X} = Arithmetic Mean
 $\sum X$ = Sum of variables
 N = No of variables

It is used to analysis the train of different variable (sales, profit, and cash in bank on increasing or decreasing or same the mean)

iii) Calculation of Correlation Coefficient (r)

Correlation analysis refers to the statistical technique, which measures the degree of relationship or association between the 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.

Out of several methods of calculating correlation, Karl Pearson's coefficient of correlation is one of the best and popular methods. Karl Pearson's coefficient of correlation(r) measures the degrees of association between the two variables suppose X and Y; given by:

$$r = \frac{\sum \mu V}{\sqrt{\sum \mu^2 \cdot \sum v^2}}$$

Where;

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

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

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

$$\bar{X} = \frac{\sum X}{N}, \quad \bar{Y} = \frac{\sum Y}{N}$$

N = Number of Years.

Interpretation of correlation coefficient (r)

- a. The value of 'r' lies between +1.00 to -1.00
- b. When r = +1, there is positively perfect correlation between the two variables When r = -1, there is a negatively perfect correlations between the two variables.
- c. When r = 0, the variables are uncorrelated i.e., increase or decrease in one variable results no impact on another variable and vice-versa.

CHAPTER - FOUR

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

This chapter of data presentation and analysis is an important text of the study of cash management. For this purpose data's were collected recently published till F/Y 2065/066 and other related information's till the duration of study and research conducted through various ways. The collected and tabulated data's have been analyzed by using those different financial and statistical tools as mentioned in methodology chapter .This chapter includes presentation ,analysis and integration of collected data with organizing sequentially as per the objectives of the study.

4.2 Presentation and Analysis of Data

Analysis of Cash Balance

Cash management plays vital role in the current assets of STCL. The cash and bank balance during the study period was presented as follows;

$$\text{Increase or decrease of cash balance} = \frac{\text{Previous cash} - \text{this year cash}}{\text{Previous year cash}}$$

Table No 4.1 : Analysis of Cash Balance of STCL

Fiscal year	Cash balance (Rs)	Increase(Decrease)%
2056/057	63079051	-
2057/058	53822377	(14.67)
2058/059	38530836	(28.41)
2059/060	58823666	52.66
2060/061	76545426	30.12
2061/062	51678428	(32.48)
2062/063	65072809	25.91
2063/064	80292345	23.38
2064/65	62952414	(21.59)
2065/066	110634296	75.74

Source: Audited Balance Sheet of STCL on relevant years

Note: With in bracket indicates minus figure.

From the above table, it shows that the cash in hand, cash at bank and cash in transits level is huge different in different fiscal years per comparison. During the study period of ten year, there is no any clear scenario of trend neither increasing nor decreasing trends of cash balance. It is noticed every year either increase of cash with high percentage or decreases with high percentage. The F/Y 2057/058, 2058/059, 2061/062 and 2064/065 show decreases with the 14.67%, 28.41%, 32.48% and 21.59% respectively. This volume of amount decreasing is out of the standard norms of the health of any corporation although STCL was even not suffered from cash shortage.

That F/Y 2059/060, 2060/061, 2062/63, 2063/064 and 2065/066 shows the changing of cash balance with increase percentage in comparison. The previous cash balances were 52.66%, 30.12%, 25.91%, 23.38% and 75.74%. The increases percentage is too high up to 75.74%, which shows that cash mobilization was not in proper way and STCL did not practice any systematic plans of cash inflow and outflow. It may cause any types of result. It is crucial importance for the corporation to keep careful watch over the cash management to determine how much cash become available and also to investigate the opportunity for the use of cash.

4.3 Ratio Analysis

Analysis of Cash Turnover Ratio (CTR)

Cash turnover ratio represents how quickly the cash is received from its sales. Higher turnover is the positive indicator of good liquidity and vice versa.

Table No 4. 2 Analysis of Cash Turnover

<i>Fiscal year</i>	<i>Cash in hand and bank(Rs)</i>	<i>Sales (Rs)</i>	<i>Cash turnover in times</i>
2056/057	63079051	1580455250	25
2057/058	53822377	1743145018	45
2058/059	38530836	1875868790	48
2059/060	58823666	2461000708	42
2060/061	76545426	3898942646	51
2061/062	51678428	2193935368	42
2062/063	65072809	1850551513	28
2063/064	80292345	1916218180	24
2064/065	62952414	2138957424	34
2065/066	110634296	3190432746	29
Average.	66143164.8.	2264950764	37.

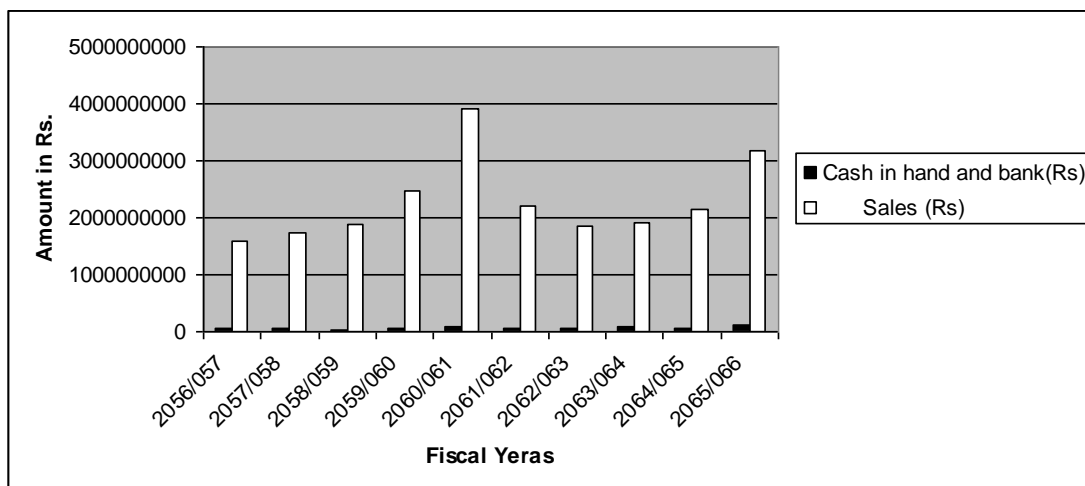
Sources: Balance Sheet of STCL for relevant year.

$$\text{Cash Turnover} = \frac{\text{Sales in Rs}}{\text{Cash in Hand and Bank in Rs}}$$

Average Turnover = 37 times

Above calculation on table 4.2 shows that the highest cash turnover of the F/Y 2060/061 which is 51 times and the F/Y 2058/059 cash turnover which obtains 49 times . In spite of the higher cash turnover, the average cash turnover is only 37 times found from ten year turnover. Another side of lowest cash turnover is obtained in the F/Y 2063/064 which is only 24 times and the f/y 2056/057 is only 25 times, these are ten points less than average turnover times. This finding shows that the cash turnover times of the STCL is heterogeneity with higher range of difference of times, which is fluctuating trend. Sometimes, it takes more time whereas sometime it takes very lower time than that of average.

Figure No 4.1 Graphical Presentations between Cash and Bank Balance and Sales



The above bar diagram shows the graphical presentation of the relation between cash and sales. The graph shows that the sales volume is maximum in the f/y 2060/061 and the minimum in f/y 2056/57, and cash balance was maximum in 2065/066 and minimum in the f/y 2058/059. In the figure it shows that as the comparison of cash and bank balance with the sales, cash balance is too minimum.

Analysis of Account Receivable of STLC

The corporation sells its goods on credit as well as cash basis. When the corporation sales credit to its customer, which is account receivables. They may be converted into cash over a short period and they are included in current assets. The liquidity position of the corporation depends on the quality of the debtors to a great extent.

Account receivable turnover is relationship between credit sales and collection period. If turnover is higher, there will be little congestion of fund in turnover and vice versa.

Table No: 4.3 Account Receivable Turnover of STCL.

Fiscal years	A/C receivable	Sales	Ratio (times)	Total collection%	RCP(days)
2056/057	135406514	1580455250	12	91.43	31
2057/058	150109178	1743145018	12	91.38	31
2058/059	152192977	1875868790	12	91.88	30
2059/060	167778845	2461000708	15	93.18	25
2060/061	177067184	3898942646	22	95.45	17
2061/062	203881404	2193935368	11	90.70	34
2062/063	199258556	1850551513	8	89.39	45
2063/064	218938094	1916218180	9	88.57	42
2064/065	224310407	2138957424	10	89.51	38
2065/066	244732573	3190432746	13	92.32	28

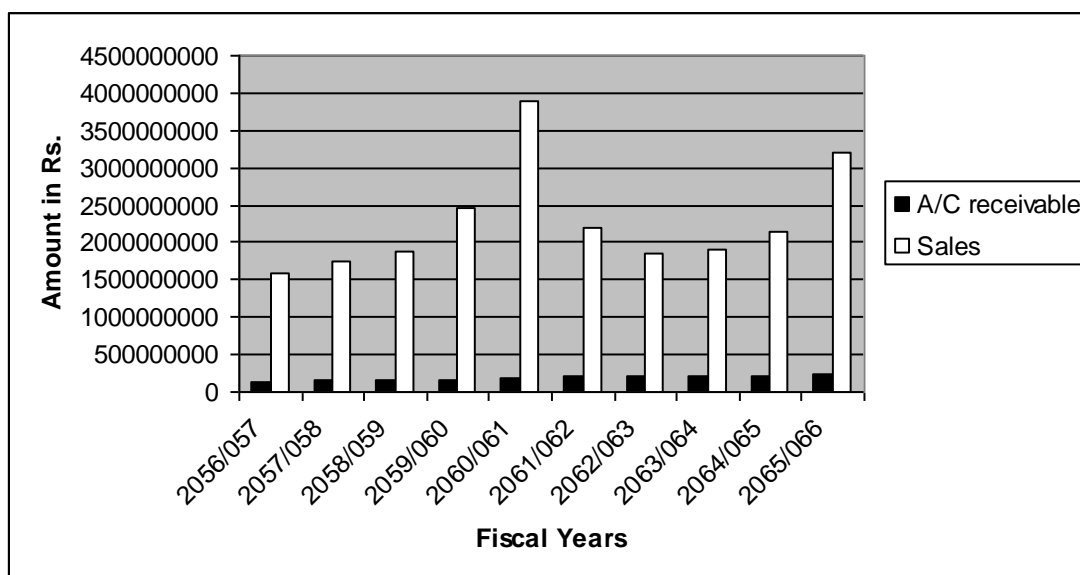
Source: Audited Balance Sheet of STCL for the relevant years

$$\text{Account Turnover ratio} = \frac{\text{Sales in (Rs)}}{\text{Account Receivable}}$$

$$\text{RCP} = \frac{\text{Days in Year}}{\text{Receivable Turnover}}$$

From the table no. 4.3, It is found out that account receivable turnover ratio was highest on F/Y 2060/61 which obtains 22.01 times and minimum in the F/Y 2063/64, is only 8.75 times and mean average is 12.22, other F/Y are just around of average more than ten time, which are positive sign for STCL. Totally collection percentage is also more positive significant. Up to 95% of sales are converted in to cash of F/Y 2060/61 and Lower collection also 88.57% on the F/Y 2063/2064. All together collected around or greater than 90% which is satisfactory of the STCL cash inflow.

Figure No 4.2 Account Receivable Turnover of STCL



The above figure shows that the receivable is in homogenous trend. But sales are in heterogynous trend. Sales figures are minimum in F/Y 2056/57 and maximum higher on 2060/61 and 2065/66 on the comparison of account receivable and sales, Receivable is very minimum which is positive signal for the STCL. On the receivable conversion period it varies about 25 to 47 times but average is 32.19, i.e. 33 times. Long conversion period is negative or weakness for the collection policy.

Analysis of Current Ratio (CR)

Table No. 4.4: Analysis of Current Ratio

Fiscal years	Current Assets	Current Ratio Current Liability	Current Ratio
2056/057	835659639	226590240	3.68:1
2057/058	1023144784	309729448	3.3:1
2058/059	1114809737	298195695	3.73:1
2059/060	1681074449	380755742	4.4:1
2060/061	1543927934	1190108852	1.3:1
2061/062	1752856957	1654107328	1.05:1
2062/063	1970754696	19514733877	1.00:1
2063/064	1891943548	1822272692	1.03:1
2064/065	1874524273	1808153651	1.03:1
2065/066	2529886558	2485055057	1.01:1

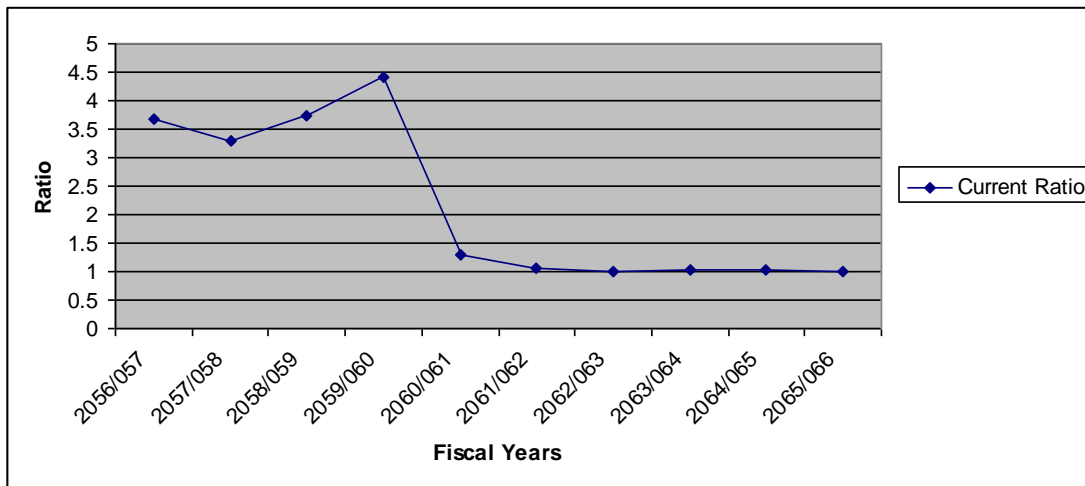
Source: Audited Balance Sheet of STCL on relevant years

One of the reliable methods to examine liquidity position of the companies is by means of current ratio. It is calculated by dividing current assets with current liabilities. The standard current ratio is to be measured by 2.1, however, the depending upon the nature of the companies, the development of capital market and availability of long term funds to finance current assets, and the satisfactory ratio varies.

From the above calculated table it is obtain that the current ratio of each year is either higher or lower than the standard i.e. 2:1, no one year also near about the standard of current assets. During the study period, earlier year of the study obtained higher of current ratio since F/Y 2056/57 to 2059/60 3.68:1,3.3:1,3.73:1, and 4.4:1 respectively and out of those fiscal are less than 2:1.

Higher current ratio indicate that the firm is in liquid and has ability to pay its current obligations in time and when they become due, and other hand lower current ratio represent that the liquidity position of the STCL as not good and STCL were facing difficulties in payment of current obligation in time.

Figure No. 4.3 Graphical Presentation of Current Ratio



From the above graphical figure it is observed that on the early year of study period the current ratio is higher but later phase it is in declining trend then the standard.

Analysis of Cash to Current Assets Ratio.

It is know that the cash is the most liquid current asset and such more the amount of cash balance in a company, is liquid. It means the company easy in meeting the current obligation. However bearing excess cash signifies cash balance being held ideal without any motive.

Table 4.5: Cash to current assets ratio

Fiscal years	Cash and Bank	Current Assets	% Cash and Bank on current assets
2056/057	63079051	835654639	7.54%
2057/058	53822377	1023144784	5.26%
2058/059	38530836	1114809737	3.45%
2059/060	58823666	1681074449	3.5%
2060/061	76545426	1543927934	4.96%
2061/062	51678428	1752856957	2.94%
2062/063	65072809	1970754696	3.30%
2063/064	80292345	1891943548	4.24%
2064/065	62952414	1874524273	4.37%
2065/066	110634296	2529886558	4.37%

Source: - Audited balance sheet of STCL of relevant year

Calculation

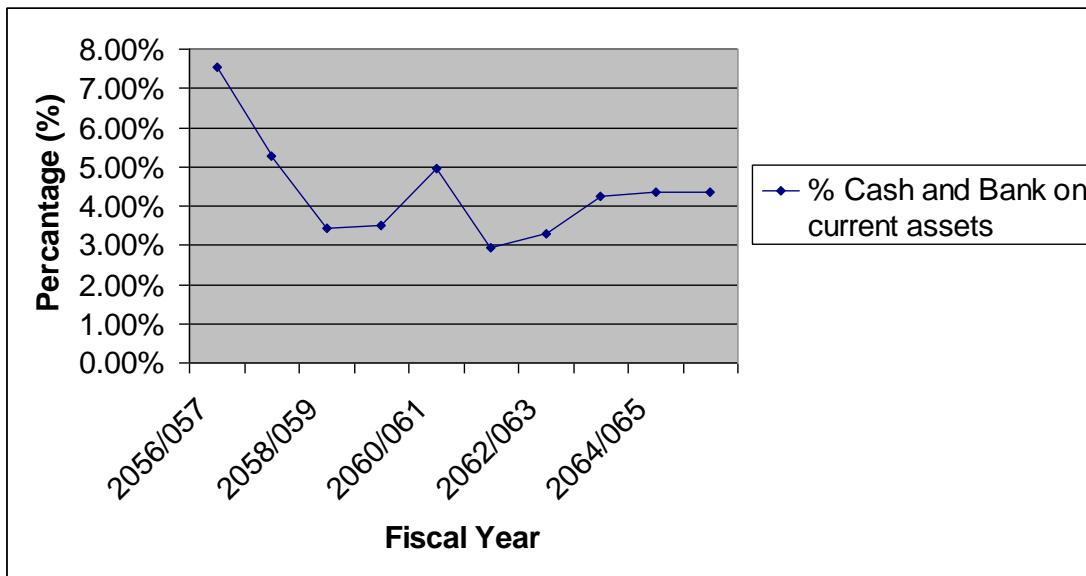
$$\% \text{ of cash and bank on current Assets} = \frac{\text{Cash and Bank}}{\text{Current assets}} \times 100$$

$$\begin{aligned} \text{Mean \% of Cash and bank on Current assets} \\ &= \frac{\text{Sum of \% of cash and bank on C. A}}{\text{No of Year study period}} \\ &= \frac{43.96}{10} = 4.39 \end{aligned}$$

The above table shows that the percentage of cash and bank balance in the current assets is variable trend. Average percentage of cash and bank on the current assets obtained 4.39%.The maximum percentage obtained during F/Y 2056/57 is 7.54% and lowest percentage obtained in F/Y 2061/62 is 2.94 % and in the F/Y 2056/57 STCL haves higher

level cash and bank balance. This analysis shows unproductive resources but F/Y 2058/59, 2059/60, 2061/62 and 2062/63 STCL suffered from low cash balance which resulted scare to payment day to day operation but later three years it managed as average level. It shows the optimum level of its cash balance.

Figure No 4.4 Graphical Presentations of Cash and Bank on Current Assets in%



Cash to working capital Ratio

$$Working\ Capital = Current\ assets - Current\ liability$$

Business firm's needs various types of assets to carry out their operation. Business activity are can't operate without assets. Assets are two types for long term obligation. And short rum obligations are known as fix and current assets. Working capital is related with short term investing or current assets which determine how much we should invest in each type of current assets and how should we manage in that investment.

These are two type of concept regarding working capital

(I) Gross working capital which covers the whole of the current assets irrespective of the source of short term fund used to finance and current assets.

(II) Net working capital, this covers the excess of current assets over current liabilities is considered as net working capital.

Here it applies the networking capital concept to calculation for the cash and bank on working capital ratio.

Table:-4. 6 Cash and Bank to Working Capital

Fiscal years	Cash and Bank	Networking Capital	Ratio (Time)
2056/057	63079051	713415336	0.088
2057/058	53822377	795913020	0.067
2058/059	38530836	816614042	0.047
2059/060	58823666	1300318707	0.004
2060/061	76545426	353819082	0.22
2061/062	51678428	98749629	0.52
2062/063	65072809	19280819	3.37
2063/064	80292345	69670856	1.15
2064/065	62952414	66370622	0.94
2065/066	110634296	44831501	2.46

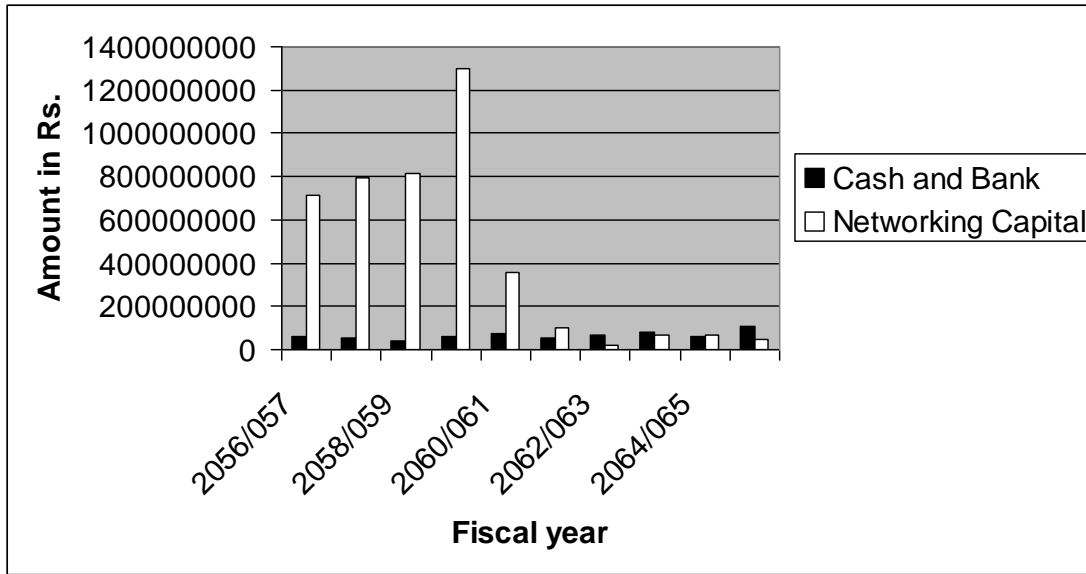
Source: Audited Balance Sheet of STCL on relevant years

Calculation:

$$\text{Cash to Working Capital Ratio} = \frac{\text{Cash and Bank}}{\text{Networking Capitals}}$$

Above table shows that cash and bank and working capital ratio are very low .Which directly indicates more that resources are being used other than working capital and effect on operational activities of STCL .For the improvement of STCL Cash mobilization is the most necessary to raise use on working capital for earning more profit from the operational activities or corporate activities, if not so, It hits negative result on the profitability of STCL.

Figure No 4.5 Graphical Presentations of Cash to Working Capital



Analysis of Current Assets to Fixed Assets

The higher ratio indicates that lower risk and lower profitability whereas lower ratio indicates the higher risk and higher profitability. Current assets to fix assets are calculated by dividing to current assets by the fix assets.

Table. No.4. 7 Calculation of Current Assets to Fixed Assets Ratio.

Fiscal years	Current Assets	Fixed Assets	Ratio
2056/057	1023144784	42017890	24.35
2057/058	1068440043	42782690	24.97
2058/059	1114809737	445170022	2.5
2059/060	1681074449	462129130	3.63
2060/061	1543927934	465991989	3.31
2061/062	1752856957	1393158082	1.25
2062/063	1970754696	1379608052	1.42
2063/064	1891943548	1377867557	1.37
2064/065	1874524273	1361452939	1.37
2065/066	2529886558	1343390052	1.88

Source: Audited Balance Sheet of STCL on relevant years

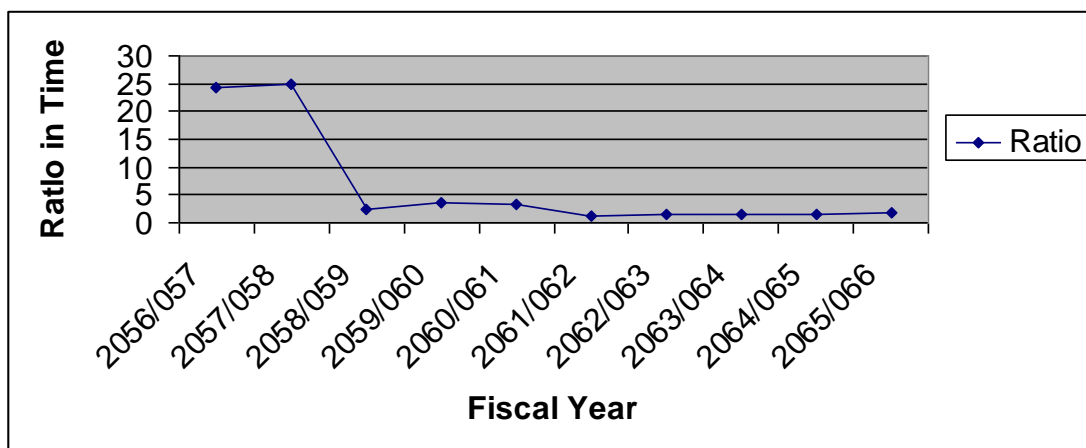
Calculation:

$$\text{Current assets to fixed assets} = \frac{\text{Current assets}}{\text{Fixed assets}}$$

The current assets with the fixed assets has fluctuated trend early first two year i.e. F/Y 2056/057 and 2057/058 is obtain 2435 and 2494 times but thereafter it highly decreases with more range of different. This variation shows that there was improper management of current assets and fixed assets. Decreasing trend of the current to fixed assets ration directly indicate that the investment of more involve in the unproductive items and huge such types amount can't hit the profit maximizing goal as well as lacks of public service type trading activity.

From the annual report of STCL, Mainly increasing the investment made on the some major item of fixed assets are land and building, warehouse, plant and machinery and vehicle (Light). These are the basic foundation for the STCL for further explanation and development with future planning but current situation which directly hampers to the liquidity position and current profit earning, But however on long term it should build up its strengths for trading activity for the competition of open market challenges, although it is mostly important to maintain few wide range of current to fixed assets ratio in present.

Figure No 4.6 Graphical Presentations of Current Assets to Fixed Assets Ratio



Inventory Turnover Ratio (ITR)

The Stock turnover ratio indicates that whether the investment in inventory is efficiently used or not. It tests the efficiency in inventory management. It also explains whether investment in inventories is with in proper limit or not. It indicates marketability of inventory and reasonableness of quantity.

Table No 4.8: Inventory Turnover Ratio

Fiscal years	COGS	Average Inventory	Ratio(Time)
2056/057	1446880329	227694891.5	6.35
2057/058	1584930453	244974215.5	6.46
2058/059	1683662151	285342022.5	5.9
2059/060	2202300614	529425032.5	4.15
2060/061	3603256766	579401661.5	6.21
2061/062	1937235347	630278989	3.07
2062/063	1592061174	833233218.5	1.91
2063/064	1644540991	795509263	2.06
2064/065	1837630785	662275662	2.92
2065/066	2813514025	807950114	3.48

Source: Audited Balance Sheet of STCL on relevant years

Calculation:

$$\text{ITR} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

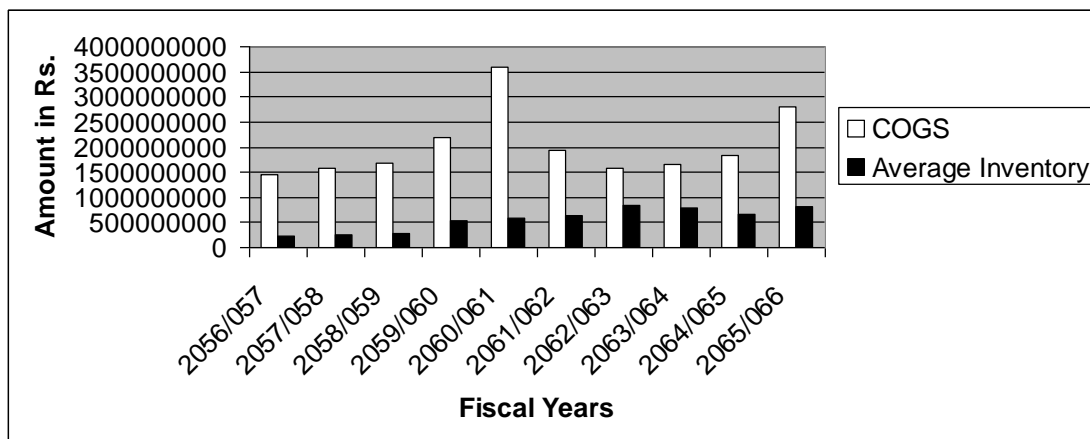
Where

$$\text{Cost of Goods} = \text{Opening stock} + \text{Purchase} + \text{Trading cost} - \text{Closing Stock}$$

$$\text{Average Inventory} = \frac{\text{Opening} + \text{Closing Stock}}{2}$$

From the above analytical calculation of stock turnover ratio it seems that early F/Y of the STCL stock turnover was satisfactory with 6.35 times, 6.46 times, 5.9times, 4.15 times and 6.21 times, which was moderate turnover but the later F/Y of STCL operated very low turnover, it was found till 1.9 times. Inventory turnover ratio measure the velocity of convention of stock of good into sales. A high stock turnover indicates efficient management of inventory, because more frequently the stock sold means less amount of capital is required to invest to the inventories. The low stock turnover indicates over investment was made for the stock of the business, poor quality of good stock accumulation of obsolete and slow moving of goods, low profits as compared to total investment and insufficient inventory management. Since, there is no standard for stock turnover ratio; a trend analysis of inventory turnover is useful for financial analysis.

Figure No 4.7 Presentation of Multiple Bar Diagram of Cost of Goods Sold and Average Inventory



Cash and Bank Balance to Current Liability Ratio

There are various techniques to measure liquidity of any corporation, one of them is cash and bank balance to current liability ratio which is also used as index of cash management. This ratio indicates that amount of cash (in percentage) is available to pay the current obligation of the firm in general. A low percentage of cash to current liabilities is regarded as a favorable indicator. However, a very low ratio is also not desirable as it may lead to corporate solvency.

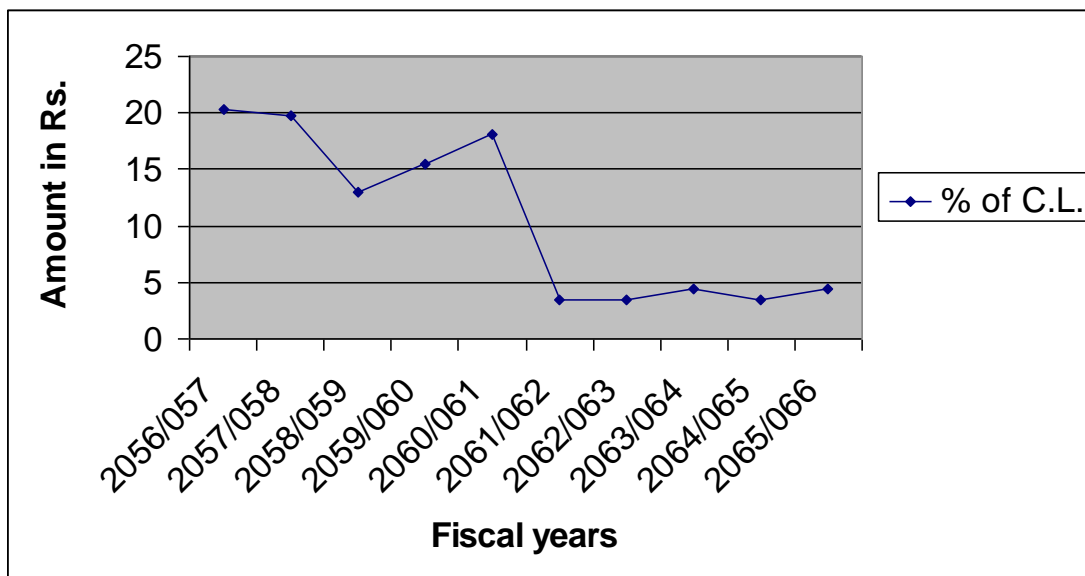
Table No 4.9: Cash and Bank to Current Liability Ratio

Fiscal years	Cash and Bank	Current Liabilities	% of C.L.
2056/057	63079051	309729448	20.36
2057/058	53822377	272527023	19.74
2058/059	38530836	298195695	12.92
2059/060	58823666	380755742	15.44
2060/061	76545426	422280119	18.12
2061/062	56678428	1654107328	3.42
2062/063	650728709	1864929789	3.48
2063/064	80292345	1822272692	4.40
2064/065	62952414	1808153651	3.48
2065/066	110634296	2485055057	4.45

Source: Audited Balance Sheet of STCL on relevant years

$$\text{Cash to Current Liability Ratio} = \frac{\text{Cash and Bank}}{\text{Current Liability}} \times 100$$

Figure No.4.8 Graphical Presentation of Cash and Bank at Current Liability



From the above table and graphical presentation and analysis, the relationship between cash and current liability are different percentage on different fiscal year.

The F/Y 2055/56, 2056/57, 2057/058, 2058/59 and 2059/60 have higher percentage of cash balance than the current liability which is 20.36% 19.74%, 12.92%,15.44% and 18.12% respectively, but

then after which fall down with very high different from 2060/61, 2061/62, 2062/63, 2063/2064, 2064/2065, and 2065/66. They obtain only few percentages which are 3.42, 3.48, 4.4, 3.48, and 4.45% respectively. It indicates that cash and bank balance of STCL reducing to current liability ratio is fluctuating in trend and cash management is not being proper way although finally liquidity position is mild condition, even not suffered from cash shortage regarding the view point of current liability.

4.4 Statistical Analysis

Correlation Analysis

Correlation analysis helps us to determine the degree of relationship between variables. In others word, correlation analysis is the statistical tool generally used to describe the degree of one variable which is related to another the relationship.

Table No-4.10 Correlation Matrix of Study Variables

Variable	Cash	Sales	Current Assets	Net working Capital	Account Receivable	Net Profit/loss
Cash	1	0.566	0.705*	-0.482	0.661*	-0.270
Sales	0.566	1	0.447	-0.158	0.333	0.416
C.A.	0.705*	0.447	1	-0.632	0.940**	-0.147
Net working capital	-0.482	-0.158	-0.632	1	-0.791**	0.294
Account Receivable	0.661*	0.333	0.940**	-0.791**	1	-0.311
Net Profit/Loss	-0.270	0.416	-0.147	0.294	-0.311	1

* 5% level of significance.

** 1% level of significance.

The correlation matrix shown in table4.10 presents the direction and magnitude of the relationship between study variables. The variables considered are cash, sales, and current assets, networking capital, account receivable and profitability of the STCL.

- The correlation coefficient of sales and cash is 0.566 which is in positive sign. It indicates that there is positive relationship between the sales and liquidity position of the firm and it also indicate that the magnitude of relationship is average. However the correlation coefficient is not signifying.

- The correlation coefficient of current assets and cash is 0.705. It indicates that there is highly positive relationship between the current assets and cash position of the STCL and it also indicates that the magnitude of relationship is strong. The table also indicates that coefficient is significant at 5% level of significance.
- The correlation coefficient of networking capital and cash is -0.482, which shown negative relationship between networking capital and liquidity position of the STCL. The given correlation coefficient is not significant.
- Correlation coefficient of the account receivable and cash is 0.661, which indicates the positive relationship between account receivable and liquidity (cash and bank) position of the STCL and it also indicates the relationship is strong. The correlation coefficient is significant at 5% level.
- The correlation coefficient of profitability and cash is obtained -0.270, which is negative sign. It indicates that there is negative relationship between profitability and liquidity position of the STCL and correlation coefficient is not significant.

4.5 Major Findings

The major finding of this study are reveled from these analysis are described below.

- 1) The liquidity position of the STCL is not strong as the aggregate. At the early period of the study in F/Y 2056/57 to 2059/060 STCL. It has higher liquidity position which results high current ratio but after that the liquidity position of the STCL is not strong as the aggregate went below then the standard 2:1.
- 2) The relationship between the cash balance and other financial variables of the STCL was not any proper trend. Early F/Y of the study period showed high ratio but later year obtained Lower ratio and also correlation between some variable are perfectly negative. Such as cash and net working capital, cash and profitability.
- 3) There is not any fixed or standard policy to cash management of the STCL which directly fluctuate on the profitability on its trading activity.

- 4) There is lower degree positive relation between sales and account receivable, high degree of collection shows 8 to 22 times of ratio. So it has good receivable policy and now STCL is adopting noncredit policy. There are minimum chances to get bad debt, Correlation between cash and account receivable is obtained 0.661. That indicate the account receivable management positively support to cash management of STCL.
- 5) STCL is adopting totally centralized cash flow policy; all cash flows are controlled by the center office. Every activities and programs of STCL are directed from center office whether purchase or sales and distribution. Total cash inflow amount is also centralized. STCL is building up good relation with different banker and making best banking network.
- 6) The study find out that STCL doesn't adopt proper criteria for the cash balance level because the cash balance level is variables in different end of years as the comparison previous fiscal year.
- 7) The study shows that STCL is setting good collection channel from different distributors and dealers which is directly collected on center account. There is not any credit policy and facility. Head of the office of the branch or sales person are accountable, if he makes as on personal and business relation. STCL has higher collection condition of cash more than 88% of sales.
- 8) There are various factors which are directly affecting cash management. Some factors such as investing on fixed assets currently hampering the liquidity condition. Huge amount of cash invested on vehicle (light) purchase. Investing on different plants such as gas plant, retailer counter and cement udyog, makes economically strong in future. However, currently good and rapid collection system boldly support to cash management.
- 9) STCL is one of such corporation which is under the collaboration of Nepal Government, public share and NTC. So, the operation board is selected from general assembly. Another functioning team is personal professional, this is variation of the professional knowledge, STCL is not fully autonomous, which is under the Nepal Government, this structure of STCL generates some trading and organizational problem. There is lack of forecasting and cash budgeting for systemized modern cash management.

CHAPTER – FIVE

SUMMARY, CONCLUSION AND RECOMMENDAION

5.1 Summary

This study directly focuses on cash management practices of STCL taking previous ten F/Y since 2056/57 to 2065/66. Data and information are collected from head office of STCL Kalimati as secondary data's of publishing audited annual report and some information collected visiting on center, personal contact with the STCL authorized personal officer and observing the functioning system which facilitated to researcher analyze, presentation and interpretation about the cash management under this corporation. This corporation is running under the collaboration of HMG, NTL and share of common people. This study has been organized in mainly five chapters and summaries as below.

The first chapter is the introduction chapter, which deals with background of the STCL. Statement of problem. Research question was arrows as liquidity position, correlation between related variable's etc. It is concerned with the focus of study, objectives of study, and limitation of research methodology.

The second chapter mainly includes the general concept of cash management, efficiency of cash management, cash management model; includes of Baumol models, Millor-orr model, Orgeler's models etc., cash forecasting, determining the cash balance, cash planning and review of the related literature includes books are James C Van Horn, Simons & Kerrenbork, Betty, Hampton etc and thesis are Shrestha, S, L. Bajharya, S.Giri, R.Thapa, P.Chataut, B, R.Panday, S. And Shing, G,K. etc.

This third chapter includes research methodology, research design, population and sample, general introduction about study sample, data collection sources, data processing and tabulation. Tools used for analyzing the data are includes in this chapter are various ratio and correlation.

The fourth chapter deals with the data collection as required by the research study. These data's have been interpreted and analyzed with the help of various ratio and correlation.

The fifth and last chapter deals with summary, finding, conclusion and some recommendations as follow;

It is one of the trading and industrial enterprises of the Nepal, contributing to the economic and industrial development. Thus researcher chooses STCL for the study. For this study research problem are taken those cash base variables to analyzing, liquidity position, efficiency of cash balance, cash collection policy etc. The main objective of this study was to analyze the relationship between those financial variable regarding to cash management like account receivable, current assets, sales, networking capital and profitability. Various financial and statistical tools with graphical diagram are used as research methodology. On this study both positive and negative indications are found regarding to cash management which are as follows.

-The liquidity position of the STCL is not strong as the aggregate which is below then the standard 2:1.

-Correlation between some variable are perfectly negative. Such as cash and net working capital, cash and profitability. Correlation between cash and account receivable is obtained 0.661. That indicate the account receivable management positively support to cash management of STCL.

-Investing on different plants such as gas plant, retailer counter and cement udyog, makes economically strong in future.

-There is lack of forecasting and cash budgeting for systemized modern cash management.

5.2 Conclusion

On this part, it can be said that cash management is an important role on any trading organization for accounting control and aching the goal of profit earning. On the conclusion after analyzing and interpreting of data's, collected information from field of observation and personal interaction following gist are noticed.

The finding of this study revealed that there is a weak cash management practice in STCL. There is a lack of proper cash planning .It seems the cash and bank balances are not consistent with other study variables like receivable ,sales, profitability etc. The study finding

supports the prior studies of cash management of public trading companies for example Shrestha (1986), Bajracharya (1990) etc.

Thus STCL has many opportunities and challenges in itself, although facing many challenges it seems to be able to earn profit. Finally, the researcher concluded that from the view point of cash management STCL is suffering from weak cash management.

Due to lack of forecasting budget, proper planning of purchase budget, sales budget, inventory management, setting of suitable level of cash balance. The proper cash management is not seen, some variables of analyzing show negative correlation.

5.3 Recommendation

The findings of the study show that the salt trading corporation has not followed effective cash management. So it needs an effective system for cash management to enhance its cash performance on the basis of findings of the study. Following recommendations are made for better cash management; the following suggestions are presented.

- i) Liquidity position of STCL is noticed poor during the study period because it is less than 2:1 of current assets, so, it is recommended that maintain the current assets ratio on the standard 2:1 for improve liquidity position. Such improvement makes to STCL easy for operation and payment current obligation.
- ii) Relation between cash balance and other financial variable was found some are negative correlation and negative or downward slope trend such as current assets and fixed assets, inventory turnover cash and current assets, cash turnover. It is necessary to improve such elements variable must be maintained for the long life of STCL.
- iii) There was not prepared forecasting budget for the future fiscal year. So every year all variable and operational activity and even negative result obtain. So we should recommend with the management to prepare forecast budget required cash fund (capital) and source to fulfill to it. Prepare cash budget, sales budget, purchase budget, which makes easy to proper cash management, gives guideline for operation, sets target of each transacting purchase, sales storing, inventory managing and easy to analyze and take corrective action.

- iv) There is higher degree positive relation between sales and cash collection, it is recommendation that for STCL which is strong point and well condition of corporation to continue to this policy and arrangement.
- v) STCL has well banking network which is best for the point of view of cash management but all cash and decision are centralized which policy miss lead to locally product trading and long chin for local opportunity. So we recommended setting fast action channel for local product trading and grab local opportunity, which enhance both STCL and local development of cash develop.
- vi) STCL was investing more funds on fixed assets for now trading which are better but investing on light vehicle is higher range which is analyzing factor for STCL, they are how much facilitated to earn profit.
- vii) Cash on hand and bank of STCL shows varies in comparisons of different fiscal year, such variation plays vital role on liquidity position and profitability earning. So it is necessary to STCL to set or adopt any standard on the size of capital cash on hand and bank for proper cash manage such cash balance should vary on the different season of business trend.

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Website

www.google.com

www.bsnetu.com

www.stcnepal.com

APPENDIX - I (a)
CONSOLIDATED BALANCE SHEET

Particulars	056/057	057/058	058/059	059/060
Assets				
Fixed assets				
Purchase and residual value of assets	44507932	44997029	447344008	466904330
Loss deprecations	2490042	2214339	2173986	4775200
Net value	42017890	42782690	445170022	462129130
Investment	123151278	128836278	139636278	139642278
Preliminary expenses				
Total fixed assets	21216742	218830336	1034324294	1073450938
Current assets loan and advance				
Inventory	289980900	199967531	370716514	688133549
Debtors	135406514	150109978	152192977	167778845
Cash and bank balance	63069051	53822377	38530836	58823666
Advance loan and deposit	534678319	664540957	553369410	566338389
Total current assets	1023134784	1068440843	1114809737	1481074449
Total assets	1188303952	1240059011	1699616037	2282845857
Liabilities				
Capital and reserve				
Share capital (paid up value)	24777700	24777700	24777700	24777700
Reserve and profit	62852895	67990396	473842404	517719525
Loan(mid-term and loan term)				
Secured loan	791043909	874763893	902800238	1359592890
Total current liabilities	30969448	272527023	298195695	380755742
Total liabilities	1188303952	1240059011	1699616037	2282845857

Source: Annual report provided by STCL

APPENDIX - I (b)
CONSOLIDATED BALANCE SHEET

	060/61	061/062	062/063	063/064
ASSETS	-	-	-	-
Fixed assets	-	-	-	-
Purchase and residual value of assets	474436982	474436982	1405458211	1434491342
Loss depreciations	8444993	8444993	12300129	54883290
Net value	465991989	465991989	1393158082	1379608052
Investment	151781287	151781287	441759529	455721383
Preliminary expenses	-	-	-	-
Total fixed assets	1100655251	1100655251	3252675551	3324704067
Current assets loan and advance	-	-	-	-
Inventory	470669773	470669773	789888205	876578232
Debtors	177781002	177067184	203881404	196258556
Cash and bank balance	76545426	76545426	51678428	65072809
Advance loan and deposit	872565695	819645551	707408920	832845099
Total current assets	1597561896	1543927934	1752856957	1970754696
Decrease in current liability & Reserve	422280119	1190108852	1654107328	1951473877
Net current assets	1175281777	353819082	98749629	19280819
Total assets	1793055053	971592358	1933667240	1854610254
Liabilities	-	-	-	-
Capital and reserve	-	-	-	-
Share capital (paid up value)	24777700	24777700	24777700	24777700
Reserve and profit	584204906	584204906	1546000307	1524163848
Loan(mid-term and loan term)	-	-	-	-
Secured loan	1184027447	362609752	3622889233	305668706
Total liabilities	1793055053	971592358	1933667240	1854610254

source: Annual report provided by STCL

APPENDIX - I (c)
CONSOLIDATED BALANCE SHEET

Particular	064/65	065/066
ASSETS	-	
Fixed assets	-	
Purchase and residual value of assets	1470926686	1514088446
Loss deprecations	93059129	170698394
Net value	1377867557	1343390052
Investment	368654475	395606589
Preliminary expenses	-	
Total fixed assets	3310507647	3423783481
Current assets loan and advance	-	
Inventory	714440295	1007175635
Debtors	218938094	244732573
Cash and bank balance	80292345	110634296
Advance loan and deposit	878272814	1167344054
Total current assets	1891943548	2529886558
Decrease in current liability and reserve	1822272692	2485055057
Net current assets	69670856	44831501
Total assets	1816192888	1787645055
Liabilities	-	
Capital and reserve	-	
Share capital (paid up value)	24777700	28537500
Reserve and profit	1374882494	1326220588
Loan(mid-term and loan term)	-	
Secured loan	416532694	432886967
Total liabilities	1816192888	1787645055

Source: Annual report provided by STCL

APPENDIX - II (a)

CONSOLIDATED TRADING AND P/L A/C

Particular	Index	056/57	057/058	058/059	059/060
Income		1580455250	1743145018	1875868790	2461000708
Cost		1446880329	1584930453	1683662151	2202300714
Gross profit		133574921	158214565	192206639	258699994
Other income		4389111	4436000	7560074	4482620
Total		137964023	162650565	199766713	263182614
Administrative expense		49028582	51227438	52250335	75363707
Interest expenses		82003067	93352837	105032677	111425761
Deprecation		2373865	2109782	2079885	2536865
Net operating profit		4558518	15960508	40403816	73856281
Profit and loss from sales of assets		425128	9672	183544	133344
Share investment		20216231	535000	0	0
Profit before tax and bonus		15232585	15435180	40587360	73989625
Employee bonus		0	1543518	4058736	7398962
Tax provision		0	3346419	9870735	16340415
Net profit/loss		15232585	10545243	26657889	50250248
Balance profit of last year		432423	0	750818	1570553
Brought from general reserve		15628502	0	0	0
Available for distribution		828340	10545243	27408707	51760801
Additional tax		564198	0	7937582	0
Prize to director		264142	0	527262	1332895
General reserve		0	3600000	10000000	10000000
Investment equation fund		0	0	0	30000000
Interim dividend		0	2477770	7433310	0
Dividend equalization fund		0	0	1510553	0
Proposed dividend		0	3716655	7433310	4955540
Brought to B/S		0	0	1510553	5472366
Total		828340	10545243	27408707	51760801

Source: Annual report provided by STCL

APPENDIX - II (b)
CONSOLIDATED TRADING AND P/L A/C

Particular	060/061	061/062	062/063	063/064
Income	3898942646	2193935368	1850551513	1916218180
Cost	3603256766	1937235347	1592061174	1644540991
Gross profit	295685880	256700021	258490339	271677189
Other income	8555765	27551148	34576890	26024744
Total	304241645	284251169	293067229	297701933
Administrative expense	75851818	82292322	88365099	90478776
Interest expenses	115686298	119994903	154015234	161188663
Deprecation	3628563	3873137	4733230	4275438
Net operating profit	109074966	78090814	45953666	41759056
Profit and loss from sales of assets	(7993)	144783	840	96171
Share investment	0	0	0	0
Profit before tax and bonus	109066973	78235597	45954506	14855227
Provision for investment and debtors exp.	0	0	0	135000000
Profit and loss before tax & bonus provision	109066973	78235597	45954506	(93144773)
Employee bonus	10906697	7823560	4595451	0
Profit before tax	98160276	70412037	41359055	(93144773)
Tax provision	25135625	20604056	12306070	10511593
Net profit/loss	73024651	49807981	29052985	(103656366)
Balance profit of last year	4572366	12033970	4659671	140731062
Adjustment of last year profit(loss)	0	0	(8062054)	0
Brought from general reserve	0	0	0	0
Available for distribution	78497017	68141951	25686602	37074696
Previous tax provision	0	0	0	4961478
Prize to director	1507507	2190740	0	0
General reserve	10000000	10000000	0	0
Investment equation fund	50000000	40000000	10000000	0
Debtors equalization fund	0	0	10000000	0
Interim dividend	0	0	0	0
Dividend equalization fund	0	0	0	0
Proposed dividend	4955540	4955540	4955540	4955540
Brought to B/S	12033970	4695671	731062	27157678
Total	78497017	61841951	25686602	37074696

Source: Annual report provided by STCL

APPENDIX - II (c)
CONSOLIDATED TRADING AND P/L A/C

Particular	Index	064/065	065/066
Income		2138957424	3190432746
Cost		1837630785	2813514025
Gross profit		301326369	376918721
Other income		25788804	28214940
Total		327115443	405133661
Administrative expense		114353837	142464215
Interest expenses		152956369	197195114
Deprecation		5169703	7064647
Net operating profit		54635534	58409685
Profit and loss from sales of assets		8996	2953
Share investment debtors provision exp.		30000000	0
Profit and loss before tax & bonus provision		54644530	58412638
Employee bonus		0	2600194
Tax provision		12364110	15276583
Net profit/loss		13027201	11555081
Balance profit of last year		0	33980109
Brought from general reserve		0	0
Available for distribution		0	45535190
Additional tax/deferred tax assets		(2987193)	(829720)
Prize to director		0	0
General reserve		0	0
Investment equation fund		0	29810500
Interim dividend		0	0
Dividend equalization fund		0	32800
Proposed dividend		0	1426875
Brought to B/S		0	39794890
Total		13027201	45535190

Source: Annual report provided by STCL

APPENDIX - III (a)

CASH FLOW STATEMENT ON THE DATE OF END OF 2057/ASHAD

Sources	Amount	Uses	Amount
Opening Cash Balance	35027847	Fix Assets Purchase	3395367
Receive from Transaction	23611336	Current Assets	159438940
Deprecation 2373865		Net Profit	15232585
Share Underwrite 0216231		Tax Paid	564198
Sales of Share 40000		Price to Director	264142
Expenses Underwrite 981240		Closing Balance	36079051
Sales of Assets	967851		
Total Lone	99228041		
Current Liability	83139208		
Total	241974283	Total	241974283

APPENDIX - III (b)
CONSOLIDATED CASH FLOW STATEMENT

Particular	2057/058 (amount)	
Cash from operating activities		
Net profit before provision		13891662
Adjustments		95825787
Deprecation	2109782	
interest expenses	93352837	
Provision for loss	981240	
Profit from sales of assets	(9672)	
Dividend income	(1143400)	
Share investment under written	535000	
Cash from change in current assets		(194648040)
Inventory increase/(decrease)	90013369	
Prepaid and deposit	(29862639)	
Current liabilities (decrease)	(46743269)	
Interest paid	(93352837)	
Debtors increase	(14702664)	
Net cash flow from operating activity		(84930591)
Cash before tax provision		
Income tax paid		
(a) Net cash flow from operating activities		
(b) cash for investment activities		(8046067)
Purchased of fixes assets	(4418351)	
Sales of fixes assets	1448884	
Investment of share	(6220000)	
Dividend received	1143400	
Increase/(decrease) investment	-	
Cash from financial activities		83719984
Increase/(decrease) secured loan		
Increase/(decrease) on mid/ long term loan	83719984	
Interest paid	-	
Dividend paid	-	
Total cash flow (a+b+c)		(256674)
Opening balance of cash and bank		63079051
Total cash and bank at end of year		53822377

Source: Annual report provided by STCL

APPENDIX - III (c)

CONSOLIDATED CASH FLOW STATEMENT

particular	2058/059(amount)		2059/060(amount)	
Cash from operating activities				
Net profit before provision		36528624		66590663
Adjustments		105653018		112921272
Deprecation	2079885		2536865	
interest expenses	105032677		111425761	
Provision for loss	-		-	
Profit from sales of assets	(183544)		(133344)	
Dividend income	(1276000)		(908010)	
Cash from change in current assets		(55567027)		478579459
Inventory increase/(decrease)	(170748983)		(317417036)	
Prepaid and deposit	111171547		(212968978)	
Current liabilities (decrease)	31121470		63345879	
Debtor increase	(2083799)		(15585868)	
Income tax paid	(24500000)			
Price to director	(527262)		(13328394)	
Retirement fund increase			5379438	
(a) Net cash flow from operating activities		61461586		(299067524)
(b) cash for investment activities		(8751399)		(18545312)
Purchased of fixes assets	(9597453)		(19695944)	
Sales of fixes assets	406045		248622	
Investment of share	(10800000)		(6000)	
Dividend received	12767000		908010	
Increase/(decrease) investment	-		-	
c)cash from financial activities		(83190757)		337905666
Increase/(decrease) secured loan				
Increase/(decrease) on mid/ long term loan	28036345		456792652	
Interest paid	(105032677)		(111453676)	
Dividend paid	(6194425)		7433310	
Total cash flow (a+d+c)		(15291541)		20292830
Opening balance of cash and bank		53822377		38530836
Total cash and bank at end of year		38530836		58823666

Source: Annual report provided by STCL

APPENDIX - III (d)
CONSOLIDATED CASH FLOW STATEMENT

particular	2060/061(amount)		2061/062(amount)	
Cash from operating activities				
Net profit before provision		98160276		70412037
Adjustments		118547819		123742011
Deprecation	3628563		3873130	
interest expenses	115686298		119994903	
Provision for loss	-		-	
Profit from sales of assets	7993		-	
Dividend income	(7710)		(144783)	
Expenses under written	18761	-	-	
Interest from bank	(767325)		-	
Cash from change in current assets		114187578		(198152908)
Inventory increase/(decrease)	217463776		(319218432)	
Prepaid and deposit	(102180559)		106421685	
Current liabilities (decrease)	3692802		37780297	
Debtors increase	(10002157)		(26814220)	
Retirement fund increase	6721223		5868502	
Price for director	(1507507)		(2190740)	
Cash before tax provision		330895673		(3998860)
Income tax paid		(9426186)		(14807869)
(a) Net cash flow from operating activities		321469487		(18806729)
(b) cash for investment activities		14327499		(301738985)
Purchased of fixes assets	(7595519)		(12050295)	
Sales of fixes assets	19881		289552	
Investment of share	(6759571)		(284235000)	
Dividend received	7710		-	
Increase/(decrease) investment	-		(5743242)	
Cash from financial activities		289420228		295678716
Increase/(decrease) secured loan			-	
Increase/(decrease) on mid/long term loan	(175520443)		(120865035)	
Interest paid	(115154848)		(114780794)	
Dividend paid	(4955540)		4422634	
Bank a/c	5443276		535757179	
Interest from bank	767327		-	
Total cash flow (a+b+c)		17721760		(24866998)
Opening balance of cash and bank		58823666		76545426
Total cash and bank at end of year		76545423		41678428

Source: Annual report provided by STCL

APPENDIX - III (e)

CONSOLIDATED CASH FLOW STATEMENT

Particular	2062/63(amount)		2063/64 (amount)	
Cash from operating activities				
Net profit before provision		29052985		(103656366)
Adjustments		162991636		310879522
Deprecation	4733227		4275438	
interest expenses	154015233		161188663	
Provision for loss	-		135000000	
Profit from sales of assets	(840)		(96171)	
Dividend income	-		-	
Provision for tax	12306070		10511592	
Adjustment for last year	(8062054)		-	
Cash from change in current assets		(117863276)		14611761
Inventory increase/(decrease)	(86690027)		162137938	
Prepaid and deposit	(41525706)		(136745691)	
Current liabilities (decrease)	2729609		26345488	
Increase in debtors	7622848		(37125974)	
Cash before tax provision		74181345		221834917
Income tax paid		(11632453)		(11920043)
(a) Net cash flow from operating activities		62548892		209914874
(b) cash for investment activities		(8098447)		(52550416)
Purchased of fixes assets	(29054210)		(48063760)	
Sales of fixes assets	-		-	
Investment of share	(12001854)		(4486656)	
Dividend received	-		-	
Increase/(decrease) investment	-		-	
Cash from financial activities		(8098447)		(142144921)
Increase/(decrease) secured loan	(57220527)		110863988	
Increase/(decrease) on mid/long term loan	216108346		(86514617)	
Interest paid	(161934199)		(162074799)	
Dividend paid	(5052067)		(4419493)	
Total cash flow (a+b+c)		13394381		15219536
Opening balance of cash and bank		51678428		65072809
Total cash and bank at end of year		65072809		80292345

Source: Annual report provided by STCL

APPENDIX - III (f)

CONSOLIDATED CASH FLOW STATEMENT

particular	2064/065 (amount)		2065/066(amount)	
Cash from operating activities				
Net profit before provision		25391311		26001944
Adjustments		187840686		231263436
Deprecation	5169703		7064647	
interest expenses	152956369		197195114	
Provision for loss	30000000		29810500	
Profit from sales of assets	(8996)		(2953)	
Dividend income	(276390)		(2803872)	
Cash from change in current assets		2739912		(454777279)
Inventory increase/(decrease)	102819065		(95554405)	
Prepaid and deposit	(22963948)		(192289816)	
Increase on debtors	(8545426)		(30422166)	
Current liabilities (decrease)	31430221		163489108	
Cash before tax provision		215971909		(197511899)
Income tax paid		(4217540)		(9414018)
(a) Net cash flow from operating activities		211754369		(206925917)
(b) cash for investment activities		(36839779)		(40167211)
Purchased of fixes assets	(22457867)		(20890223)	
Sales of fixes assets	-		23452	
Investment of share	(14658302)		(17370400)	
Dividend received	276390		2803872	
Increase/(decrease) investment	-		(4733912)	
Cash from financial activities		192254521		294775010
Increase/(decrease) secured loan	21092990		(4738716)	
Increase/(decrease) on mid/long term loan	(53145986)		498254420	
Interest paid	(153153031)		(197079912)	
Dividend paid	(7048494)		(1660782)	
Total cash flow (a+d+c)		(17339931)		47681882
Opening balance of cash and bank		80292345		62952414
Total cash and bank at end of year		62952414		110634296

Source: Annual report provided by STCL

APPENDIX - IV (a)

SPSS Input Data (Amount in Rs)

year	cash	sales	ca	nw_c	ar	np_l
2056/057	63079051	1580455250	835659639	713415336	135406514	15232585
2057/058	53822377	1743145018	1023144784	795913020	150109178	10545243
2058/059	38530836	1875868790	1114809737	816614042	152192977	26657889
2059/060	58823666	2461000708	1681074449	1300318707	167778845	50250248
2060/061	76545424	3898942646	1543927934	353819082	177067184	73024651
2061/062	51678428	2193935368	1752856957	98749626	203881404	49807981
2062/063	65072809	1850551513	1970754696	19280819	199258556	29052985
2063/064	80292345	1916218180	1891943548	69670856	218938094	-103656366
2064/065	62952414	2138957424	1874524273	6637622	224310407	13027201
2065/066	110634296	3190432746	2529886558	44831501	244732573	11555081

APPENDIX - IV (b)

SPSS Output

Correlations

		YEAR	CASH	SALES	CA	NW_C
YEAR	Pearson Correlation	1	.648*	.351	.941**	-.782**
	Sig. (2-tailed)		.043	.320	.000	.008
	N	10	10	10	10	10
CASH	Pearson Correlation	.648*	1	.566	.705*	-.482
	Sig. (2-tailed)	.043		.088	.023	.158
	N	10	10	10	10	10
SALES	Pearson Correlation	.351	.566	1	.447	-.158
	Sig. (2-tailed)	.320	.088		.196	.662
	N	10	10	10	10	10
CA	Pearson Correlation	.941**	.705*	.447	1	-.632*
	Sig. (2-tailed)	.000	.023	.196		.050
	N	10	10	10	10	10
NW_C	Pearson Correlation	-.782**	-.482	-.158	-.632*	1
	Sig. (2-tailed)	.008	.158	.662	.050	
	N	10	10	10	10	10
AR	Pearson Correlation	.989**	.661*	.333	.940**	-.791**
	Sig. (2-tailed)	.000	.037	.346	.000	.006
	N	10	10	10	10	10
NP_L	Pearson Correlation	-.292	-.270	.416	-.147	.294
	Sig. (2-tailed)	.413	.450	.232	.684	.410
	N	10	10	10	10	10

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

		AR	NP_L
YEAR	Pearson Correlation	.989**	-.292
	Sig. (2-tailed)	.000	.413
	N	10	10
CASH	Pearson Correlation	.661*	-.270
	Sig. (2-tailed)	.037	.450
	N	10	10
SALES	Pearson Correlation	.333	.416
	Sig. (2-tailed)	.346	.232
	N	10	10
CA	Pearson Correlation	.940**	-.147
	Sig. (2-tailed)	.000	.684
	N	10	10
NW_C	Pearson Correlation	-.791**	.294
	Sig. (2-tailed)	.006	.410
	N	10	10
AR	Pearson Correlation	1	-.311
	Sig. (2-tailed)		.382
	N	10	10
NP_L	Pearson Correlation	-.311	1
	Sig. (2-tailed)	.382	
	N	10	10

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).