CHAPTER- 1

INTRODUCTION

1.1 Background

1. General Background of Public Enterprises

There is hardly any country in the world today in which the government is not involved actively and directly and setting up and management of economic and industrial enterprise. It is widely accepted now that the economic development of the country is directly related with its industrial growth. Expansion of industries leads to greater utilization of natural resources, production of goods and services, creation of employment opportunities and improvement of in general standard living. The doctrine of public sector emphasis upon the principal of welfare state, where each and every activity of the government is expected to safeguard and promote interest of public. For this, the state has to come forward to control and manage the national resources in public interest. This objective can be achieved either through intervention and/or an entrepreneurship. Intervention effect the existing system of private sector while public sector is the outcome of state enterprises, political ideology, state of economy development and defence being prominent among the factor concerned.

Public sector and private sector are generally taken as to mutually exclusive sectors of economy. But both are in reality, indispensable basis for growth and development. In fact, these are two wheels of the economy where in the public sector provides the base for development of private sector. Public sector and private sector both form integral parts of the national economy. The economy of Nepal is basically a mixed economy, where the public and private sector both operate freely in business except in case

of defense. Public sector denotes a part of the government setup. Its budget gets incorporated with the government budget there by allowing it to get funds from the government and hence it is required to deposit all the its income in government treasury. The objectives of PEs in Nepal have greatly facilitated economy growth, inspire of the problems of capital investment, log gestation period, low profitability and high risk. The government use PEs for implementing their policies, tools for short team political benefits, creation of employment opportunities, economic and social developments, to fill the gap in private capital, take over gain projects, price control, public welfare and national self-preservation etc. In this way public enterprises have contributed through various means in the development process of the country.

1.1.2 Insight into Nepalese Public Enterprises

The history of development of public enterprises begins after democracy of 2007 B.S. During Rana regime very few industries were in existence such as Biratnagar Jute Mills, Nepal Bank Ltd. and Juddha Match Factory. Realizing the need of industrialization, after 2007 democracy, government established "Udyog parisad" to encourage industrialization. After some years it changed its name to "Cottage and Village Industry Department", and hence began the development of PEs.

1.1.2.1 Development of Public Enterprises in Nepal

For the development of industrialization, government initiated various programmes phase wise, which are described n brief below:

1.1.2.1.1 The First Five Year plan Period (1956-61)

During the plan, Utility industries that promised public were preserved for the public sector investment and the failure industries were privatized. Government adopted principle for mixed economy and the policy of this plan was as follows:

- To revitalize cottage industries.

- To attract foreign investment while protecting national welfare.
- To render assistance to existing industries in the interest of national welfare,
- To encourage vocational training,
- To utilize efficiently foreign technical assistance,
- To co-ordinate the activities of the government departments concerning industries,
- To encourage private capital towards industrial investment.

Seven PEs were established during the plan:

- Nepal Airlines corporation
- Nepal Industrial Development Corporation
- Raghupati Jute Mills
- Timber corporation
- Balaju Industrial State
- Asahaya Kalayan Kendra
- Balaju Yantra shala Pvt. Ltd.

1.1.2.1.2 The Interim period (1961-62)

This period was marked by the declaration of Nepal government policy as laid down in Industrial Enterprises Act of May 28, 1961 which adopted the PEs on the same and basis as per the first plan.

Three PEs were established during the period:

- Ranta Recording Corporation

- National Trading Ltd.
- National Construction Company of Nepal

1.1.2.1.3 The second Three Year Plan (1962-65)

This plan stressed for the first time for balanced regional development. It clearly demarcated improvement in the areas of PEs as basic utilities and infrastructure like electricity, transportation, communication etc. as well as support services.

Eleven enterprises were incorporated at this phase:

- Gorkhapatra Corporation
- Nepal Electricity Corporation
- National Commercial Bank
- Birgunj Sugar Factory
- Janakpur Cigarette Factory
- Transport Corporation
- Providend Fund
- Hetauda Industrial District
- Patan Industrial District
- Fuel Corporation
- Nepalese Carpet Pvt. Ltd.

1.1.2.1.4 The Third Five Year plan (1965-70)

This plan emphasized the need to involve both the private as well as public sector in industrialization process of the country. It is also outlined the need to follow pragmatic approach as to which industries are required to be established under public as well as private sector.

The plan emphasized in export-oriented industries, which have great prospects of earning foreign exchange and which are based on local law material and producing basic materials. The following objectives were set:

- To provide job opportunities for seasonally unemployed agriculture labor.
- To foster self-sufficient in different regions through the development of appropriate cottage industries.
- To revitalize traditional arts and crafts.
- To develop cottage industries with prospects of earning foreign exchange.

Twelve public enterprises were incorporated during the period.

- Bansbari leather and shoe factory
- Agriculture input corporation
- Agriculture Development Bank
- Agriculture Tools Factory limited
- National Insurance corporation
- Himal Cement Company
- Nepal Tele-communication Board
- Chandeswari Textile Industry
- Cottage Industry and Handicraft Emporium

- Brick and Tile factory
- Dairy Development Corporation

1.1.2.1.5 The Forth Five Year Plan (1970-75)

The main objectives of this plan was to encourage speedy growth in private sector and providing facilities and support services including districts in the public sector.

It cannot be said that the private sector will set up all the basic industries capable of making special contributions to the industrial development country. The government will attempt to establish paper, fertilizer of industries with the aim of gradually selling them to the private sector in (National Planning Commission, Forth plan).

New industrial policy of 1974 was introduced during the period more liberal towards private sector.

Twenty seven PEs were established during the period.

- Nepal Oil Corporation
- Nepal Transit and ware housing Pvt. Ltd.
- Royal Drugs Limited
- Drinking water and Sewage Board.
- Nepal Food Corporation
- Hetauda textile Industry
- Credit Guarantee Corporation
- Nepal Chauri ghee Industry
- Rastriya Chanal Factory

- Tobacco Development Company
- Jute Development and Trading corporation
- Cultural Corporation
- Royal Nepal Films corporation
- Nepal Livestock Company
- Agro Lime Industry
- Vegetable Ghee Industry
- Eastern Electricity Corporation
- Electronic Data Processing Centre
- Eight Paddy rice Export Companies

1.1.2.1.5 The fifth year Plan (1975-80)

This plan adopted the industrial policy of 1974 and provisioned for establishment of four industrial districts and four industrial ventures in the public sector, projecting a substantial expansion in the private industrial sector. This plan was assigned great responsibility to the public sector for the industrial development.

Following were the objectives of the plan:

- To bring about qualitative and quantitative improvement in productivity of industrial goods.
- To general employment opportunity in order to absorb surplus agriculture labor.
- To mobilize local capital, skill and resources top maximum extent.
- To gain self-sufficient in the production of some daily necessaries and certain construction materials.

- To reduce regional economic imbalance.
- To improve balance of payment by creating a favorable balance of trade through export promotion and import substitution.

Seven PEs were established during the plan:

- Hetauda Cement Factory
- Security Marketing Centre Ltd.
- Janak Educational Material Centre
- Brick and Tile factory Bhaktapur
- Agriculture Project Service Centre Ltd.
- Hetauda leather Company
- Nepal Metal Company

1.1.2.1.7 The sixth Five Year Plan (1980-85)

The basic objectives of this plan was to make PEs operate in business like manner. For the first time definite PEs policies were formulated during the plan. Considering the poor performance of PEs the plan emphasized in autonomy and less interference in their national operations. Consolidation of PEs, liquidation fixation of minimum returns, allocation of financial subsidies on the basis of loss incurred because of government decisions, selling of shares to public, etc. were the main highlighted of the plan. Sum of the PEs were consolidated, some liquidated and sold to private sectors.

The main characteristic feature of this plan was the presentation of PEs in terms of target and performance in the legislature for the first time for public accountability purpose.

Ten PES were established during the period.

- Lumbini Sugar Factory
- Bhrikuti Paper Industries
- Nepalgunj Paper Factory
- Herb Production and Processing Company
- Nerpal Raisin and Tutpentine
- Butwal Spinning Mills
- Nepal Orient Magnetite
- Nepal Metal Company
- Nepal Resettlement Company Pvt. Ltd.
- Nepal Arab Bank Ltd.

1.1.2.1.8 The Seventh Five Year plan (1985-90)

The plan primarily focused its attention on the inadequacy of returns from the PEs compared to the huge Nepal Government investment and therefore called upon the need to run them efficiently. It also called for providing autonomy and recommending reward and punishment for their performances.

Industrial services centre was bifurcated into two separate institutions viz. Industrial District Management Ltd. and Economy Services Centre.

The PEs established during the plan are:

- Udaypur Cement Factory
- Nepal Coals Limited. and
- Nepal Television

During the plan Nepal Timber Corporation and Fuel Corporation were amalgamated, Jute trading and Development Company was converted to a Board, which was later liquidated. Likewise, provident fond was also liquidated.

1.1.2.1.9 The Interim Period (1990-92)

After the seventh five-year plan, the restoration of democracy in 1990 A.D. couldn't help uplift the situation of PEs. This period of 1990-92, was termed as the interim period, during which Ratna Recording Sansthan was assimilated into Nepal Television.

1.1.2.1.10 The Eighth Five Year Plan (1992-97)

Nagirik Lagani Kosh (Citizen Investment Fund) was established during the period. Tobacco Development Company and Nepal Coal Company were liquidated.

1.1.2.1.11The Ninth Five Year Plan (1997-2002)

Almost all the PEs are running under loss in this phase, the details have been discussed in the following paragraphs. No PEs were established during the period, and the remaining PEs are in the process of liquidation. Consolidation or Privatization because of their poor financial performances. So, far, Himal Cement Factory and Nepal Tea Development Corporation are leased for privatization.

Political interferences combined with corruption indicate that conditions of PEs are worsening and the everybody of the Country is helpless. Moreover, the trauma of Royal Family Massacre and state of emergency imposed in the country has added more to the downfall of these PEs.

1.1.2.1.12The Tenth Five Year Plan (2002-2007)

The objectives of the tenth year plan is to make the economy vibrant, dynamic and competitive by promoting the private sector by creating conductive environment and privating the public enterprises which needs to be retained in state ownership and management.

At least 15 enterprises will be privatized and handed over to the private sector within the plan period through privatization of a minimum of 3 enterprises per annum inclusive of those, which couldn't be privatized during the ninth plan. In this plan period, following enterprises are privatized up to now.

- Butwal Power Company
- Birjung Sugar Factory Ltd.
- Agriculture Tools Factory Ltd.
- Bhaktapur Bricks Factory Ltd.

By Dissolving and selling share and business assets.

1.1.2.1.13 The Interim Three Year Plan (2007-2010)

The objective of this plan is to make the economic vibrant, dynamic and competitive by formatting the private sector by creating conductive environment and privating the public enterprises which needs to be retained in the state ownership and management. At least 12 enterprises will be privatized and handed over to the private sector.

1.1.3 Introduction of dairy development corporation

A first five-year plan, stressed upon the need of developing modern dairy industry in public sector. The dairy development commission was formed in 1955 A.D. The dairy development section was established in the year 2010/011. As the demand of milk and milk products were gradually increasing. It was left necessary improvement of dairy development dairy development center. As a result of dairy development center was at Bhotahity on the same year 2010/011. This center started to distribute the collected milk with processed to the urban people in kathmandu. The demand of milk and milk product has been increasing day by day. The dairy plant becomes necessary. Due to the inadequacy of space this center was shifted to Lainchour in the space this center dairy development commission was constituted to guide the dairy development commission was constituted to guide the dairy development section. At that time dairy expert were provided by Swiss association for technical assistance. The dairy development commission had been converted into dairy development board in 2009. Ultimately in act. 2021

The main objectives of the corporation are to provide guaranteed marked and fair price to the rural milk producers and to supply hygienic pasteurized milk and there standard dairy products to the urban consumer prior to the establishment of the corporation a separate dairy development board was constituted to carry out the task of dairy development in wider scale. The dairy development activities in Nepal started in usual village of kavre district in B.S. 2009(1952) on experimental basis with a small-scale milk processing plant under the department of agriculture. In the year B.S. 2010/2011 at the initiative of dairy development board. The central dairy plant was established and starts milk collection processing and marketing activities from the year B.S. 2014(1957). The third year plan to provide potential market to the farmer. Who are for distance and remote areas to supply the homogenized and pasteurized milk and other milk products to the consumer of urban area and to ensure the improvement of life style of former?

DDC is totally owned by government. It is also financing supported by the foreign grants and loans at a rate of interest. World food program (WFP) has been supporting DDC since 2030/31(1973/74). The New Zealand and Danish government had contributed towards the establishment or milk processing plants; at present USAID and Danish government are the major donors.

Dairy Development Corporation provides qualitative milk and milk product to the consumer at national level. The demand of milk is increasing day by day because of high quality and hygiene. DDC buys milks at a reasonable price. Regular basis and supplies milk with safe market for their milk. Before established dairy development corporation, there is no potential market to the farmer. To provide reasonable price to the milk producers of rural side an also availability of pasteurized milk the consumers to fulfill these objectivities the DDC has been working from it's setup. The condition of farmers will improve if the gate adequate price of milk at one side of the DDC will continue is efforts to supply increasing demand of milk to the consumers of urban area. The demand of milk to the consumers of urban area. The demand of milk is increasing order because of rapid increase in population,, the DDC is trying to collect milk occupation attractive the DDC has expended it's branch officers indifferent parts of the country such as Kathmandu, Hetauda, Pokhara Lumbini, and so on.

The objectives of extended branch officers and projects are to provide suitable price of milk producers of the people of rural area and also make then easier to sell milk. There should be co-ordination between milk production and the demand of milk due to backward economy. Because of the continue efforts of DDC has easier to bring increase in milk production in rural.

The Main Objectives of DDC

- To provide a guaranteed market for milk to the rural farmers with fair price.
- Supply pasteurized milk and milk products to urban consumers.

- Development and organized milk collection system to meet increasing demand for pasteurized milk and milk product.
- Bring improvement in production; collection. Processing preserving sales and distribution of milk and milk production in modern and scientific way, while in view the goals of promoting national welfare maintaining production incentive and preserving consumer's health.

For the fulfillment of this objective of DDC has implemented various programs to development numerous milk collection center, milk producer organization and billing in the rural areas.

1.2Statement of the problem

The down falling trends of public enterprises, especially the industrial enterprises or the manufacturing enterprises has been the over lasting problem of our country. Hardly a handful of these public enterprises have proved satisfactory; rest of all being a burden to the government. in the name of economic liberalization many of these companies are either privatized or are in the process of privatization to get rid of the burden. The annual report on financial status of public enterprises, the economic survey FY2006/07,2007/08 and 2008/09 conducted by His Majesty's Government. Ministry of Finance clearing mention about inefficiency of public enterprises.

Degrading Financial Performance of Public enterprises

The present condition of Nepalese public enterprises is piteous. Most of the PEs have been consolidated, liquidated or privatized because of these poor financial performance. to get acquainted with the general idea on the performance manufacturing public enterprises of the country the following figures have been extracted from economic survey 2065/66, Ministry of fiancé.

Performance of Public Enterprises of Nepal (FY 2063/064 to 2065/066)

Table No. 1

Comparative Net profit/Loss

(Rs. in Lakh)

S.N.	Name of government Sector	2063/064	2064/065	2065/066
1.	Industrial Sector	(4456.00)	(3294.00)	(2824.00)
2.	Traditional Sector	4370.00	(3467.00)	(28905.00)
3	Service Sector	(9632.00)	(2783.00)	(112.00)
4.	Social Sector	(14.55)	(27.00)	102.00
5.	Public utility Sector	19958.00	16867.00	5995.00
6.	Financial Sector	(23116.00)	(63981.00)	(8073.00)
7.	Total Profit	28636.00	34052.00	28971.00
8.	Total Loss	(41526.55)	(90737.00)	(57788.00)
9.	Net Profit/ Loss	(12890.55)	(56685.00)	(28817.00)

Sources: Economy survey 2065/2066, Ministry of Finance Nepal.

Needless to say, the figures indicate disappointing situation of manufacturing PEs. It shows loss in all the fiscal year with no profit. "With an objective to accelerate the momentum of economic and social development of the country, Nepal Government operated various public enterprises (PEs) by investing hues amount of resources. Those PEs were established when private sector was not forth coming to cater to the basic need and delivering the service to the people in the past several Eps were established

under the foreign assistance also. However weak financial position and unsatisfactory financial performance have made the huge government investment un productive and the return investment is in diminishing trend" (Nepal Government Economic Survey, FY 2065/66). The latest Nepal Government economic survey, FY 2066/67 status"…..these enterprises have failed to to perform on the sound and business like manner. As a result, their financial position Continues the become weaker and return to government investment do diminish"

These bitter facts urged this researcher to find out the reality behind down falling trend of financial performance of these public manufacturing enterprises, what could be the underlying deficiency, which is hindering the financial success of public enterprises? Cannot a public enterprise survive on its own effort without being privatized? The moment a public enterprise is privatized, shortcoming gradually with draws. Obviously they're a number of problems for this poor situation of the public enterprises. Corrupt attitudes of the authorized in the EPs, interference of politically infected bureaucracy are no doubt the major causes; and poor financial performance is no doubt the effect. The current upsetting situation is obviously because of week financial performance or rather a haphazard financial decision of the public enterprises. However, such poor performances are to be verified on the grounds of globally accepted financial and statistical tools.

Cash Management (A Challenging Task)

The task of cash management is one of the contradictory functions in financial literature. As stated by My Khan and PK Jain (1986:664) the basic objectives of a business firm being: (a) to meet the cash payment schedule, and (b) to minimize fund committed to cash balances; these two aspects are mutually contradictory and the task of cash management is to reconcile them. So, a balance between the two has to be sought where the firm has optimum level of cash balance. And thus the very nature of cash management is challenging and problematic.

Inefficient Cash Management Practice in PEs

Cash management has been the most intricate and challenging area of modern corporate finance as much as the management always face a trade-off between the liquidity and profitability of the firm. Though most of the enterprises in Nepal have been well recognized the importance of proper cash management, they are still facing the problem of cash management in the public enterprises of Nepal is primarily based on the traditional practices, lacking in a scientific approach. By and large most enterprises had periodic accumulation of surplus cash and corresponding cash shortage from time to time. However more of the enterprises considering the implications of holding idle cash balance and few took in the account the potential benefits of investing surplus in marketable securities. Nepalese public enterprises never through of the source of the current assets i.e. cash and usually depends on Nepal Government for it. In Nepalese firm's context, the theory of cash management has not been much effectively applied in practice. Term such as cash flow analysis, cash budget, for casting of cash requirements, credit discount policy, cash discount policy, etc. have never seriously considered. Traditional approaches are still dominant in Nepalese public enterprises and are reluctant to adopt modern techniques. One of the major causes involved in the down falling trend of public and private companies in Nepal is obviously is the mismanagement of cash balance. So the cash management of the determination of optimum level of cash for day to day use or for the use in the short run has been one of the greatest shortcoming in the area of finance functions. However use of sophisticated forecasting technique is not the basic requirements of cash budgeting. The inherent quality of a cash budget depends on its treatment as a formal document. The cash budget prepared at the beginning of a fiscal year, if untouched thereafter can be of no use, even if it was prepared with very sophisticated forecasting tools (Bajracharya, 1990:112-114).

In order to remedy the current problem of cash management in public enterprises, studies and researches are to be conducted to find out the reality. So this study would be one of those efforts and thus it will examine the cash management practices being employed in Dairy Development Corporation, one of the leading public enterprises in Nepal.

1.3 Focus of the study

As started in the tenth plan the financial situation of the government corporation as a matter of is in a very poor shape. Apart from other measures required to improve their performance, public enterprises may be expected to have better prospects with effective cash management.

The focus of the study being on a critical examination of cash management technique of Dairy Development Corporation. The period covered by the study is ten year from 2056/57 to 2065/66. The present study of cash management in Dairy Development Corporation Ltd. Is the first of its kind.

1.4 Objectives of the study

The present study has been conducted to examine cash management of public manufacturing enterprises of Nepal, on the basis of cash study of Dairy Development Corporation.

It focuses on the investment decision of the economy and in particular the cash management in short run business operation of the firm, i.e. management of the individual current assets like cash, receivables and inventory in short run. In other words this study deals with the management of cash or near- cash assets such as marketable securities and time deposits in banks following are the objectives of the study.

i. To study the overall scenario of DDC.

ii. To examine the liquidity position of DDC.
iii. To examine the existing cash management practices in DDC.
iv. To recommend viable suggestion on the basis of above analysis to improve the existing cash management for coming future.

1.5 Scope and Limitations

The scope of the study is subject to various limitations, which are as follows:

i. DDC has been chosen as sample from among various manufacturing public enterprises. Hence the finding couldn't be extensively generalized to all the existing public enterprises of the country.
ii. Time constraints together with unavailability of secondary data on time could limit the details and depth of the study.
iii. The study in mainly dependent on secondary data, covering data of past ten year only; however and wherever applicable, data have been gathered prior to last ten years.
iv. This study is limited to cash management of DDC.
v. Unavailability of secondary data is the other limitation, which could limit the scope of the study. Noteworthy fact is that DDC audited financial statements for FY 2065/66 only at the end of 2066/67. The company does not maintain trial balances; neither does it prepare cash flow statements.
vi. The study assumes that the impact of political factors of the country such as change in government, any short of political involvement (direct or indirect) in the firm, if prevalent, has insignificant or no effect upon the financial decisions.
vii. Financial ratio analysis and statistical tools have been used to analyze quantitatively.

1.6 Organization of the Study

This first study has been organized in sequence of five chapters.

The first chapter is the introductory, background information on the subject matter of the research undertaking has been presented under this section to provide general idea of its history. So, this section includes a brief history of development of public enterprises in Nepal in the beginning, and then introduction of DDC statement of the problems, objectives of the study, focus of the study and limitation of the study has been presented subsequently.

The second chapter deals with the review of literature relating to cash management, which includes the reviews of relating previous writing and studies to find the existing gap. So, past studies in the cash management function as well as public enterprises has been reviewed to find out what new can be contributed. Review of text books, thesis/dissertations and government publication and newspaper have been included.

In third chapter, the research methodology employed for the study has been described. It includes research design, the population and sample, nature and source of data and financial and statistical tools for the analysis of the data.

In fourth chapter, the acquired data are presented and analyzed through the way given in methodology. This is the core of the thesis. It consists of systematic presentation and analysis of financial and statistical tools.

At last in fifth chapter, the summery of findings, issue and constraints and some recommendation have been presented in the fifth chapter.

References or the bibliography consists of list of published and or unpublished books, articles, dissertations etc. which have been the source of information and use as references.

Appendix consists of relevant materials, when are, however nor much with mentioned in the main body of the report, included are: P&L a/c, balance sheet, summary of statistical findings and census of manufacturing establishments.

CHAPTER-II

REVIEW OF LITERATURE

2.1 Introduction

The purpose of this literature review is to get acquainted with what has been accomplished in the concerned subject matter and what is yet to be accomplished. In other words it helps to find what actually is to be studied and foretells worthiness of the study being undertaken.

2.2 Conceptual Framework

2.2.1 Meaning of cash Management

Business transactions, without the involvement of cash are mythical in this monetary world. Today the important of cash management is recognized by all segments of organization activities. If some of departments are handed independently without considering of their implications of cash management the conflicting interest of those department are bound to create serious problems. The study of cash management is therefore considered as an integrated approach to management science.

The term ‘cash’ is defined in various ways as per context. “The term cash has a meaning according to the purpose for which it is used and a person with varying branches of knowledge implies various meaning of cash. Economic considered cash as the

means to satisfy human want, the lawyer the view that cash is legal tender money issued by a determinate authority. However, out concern of the meaning of cash is an assets constituting the most liquid item among all the assets. But to obtain cash involves cost because corporations have to raise through issue to share or by borrowing with interest. In through generation money market procurement is liability and wasted opportunity unless it is not put to its optimal use “(Saksena, 1977:3)”.

Cash is an assets constituting the most liquid item among all the assets, which plays a vital role to daily operation of the business. Cash is both the beginning and the end of the working capital cycle cash, inventories, receivables end cash. As such whatever cash a corporation has must be utilized efficiently to meet obligations of interest payment if cash is obtained from borrowing, and if it received through issue of shares the corporation has responsibility to owners in assuring them to pay favorable rate of return. Since cash is not easy to obtain, the available cash must be prudently spent without including loss.

“Although it is impossible to formulate a set of assets management policies of universal applicability, one policy or rule that appears to be unanimously accepted is that cash must be conserved " (Kent, 1964:522-523).

Actually cash is just like a blood steam in the human body given vitality and strength to business enterprises. The steady and healthy circulation of cash through out the entire business operation. “Cash is the money, which the firm can disburse immediately without any restriction. The tem cash includes coins currency and cheques held by the firm and balance in its bank accounts. Sometimes near cash items, such as marketable securities is also included in cash (Pandey, 1992:764-765).

Similarly, “that is all we are saying you need to do with cash. Cash is just another raw materials that you require to on production. If you keep to small operation of your funds in the bank, you will need to make repeated small sales of securities very time you want to ay your bills. On the other hand, if you keep excessive each in the bank, you are losing interest. The trick is to hit a sensible balance” (Mayer’s, 1988:774).

Hence every enterprise has to hold necessary cash for existence. In a business firm ultimately a transaction results in either an inflow or an outflow of cash. In an efficient managed business, static cash balance situation generally does not exist. Adequate supply of cash is necessary to meet the equipment of business. It's shortage may stop the business operation and may degenerate a firm state of technical insolvency and over liquidation.

All corporations are government owned, while only few have 51 percent share holding of government. Government provides not to keep idly but to utilize efficient for rendering goods and services at cheaper prices to public benefit. This hold true only in case of corporation incapable of utilizing cash. If cash holding is bad for inefficient corporations, cash shortage is dangerous for efficient corporations. As for inefficient corporations it does not matter where cash increase or decreases if they are not in a position to utilize them.

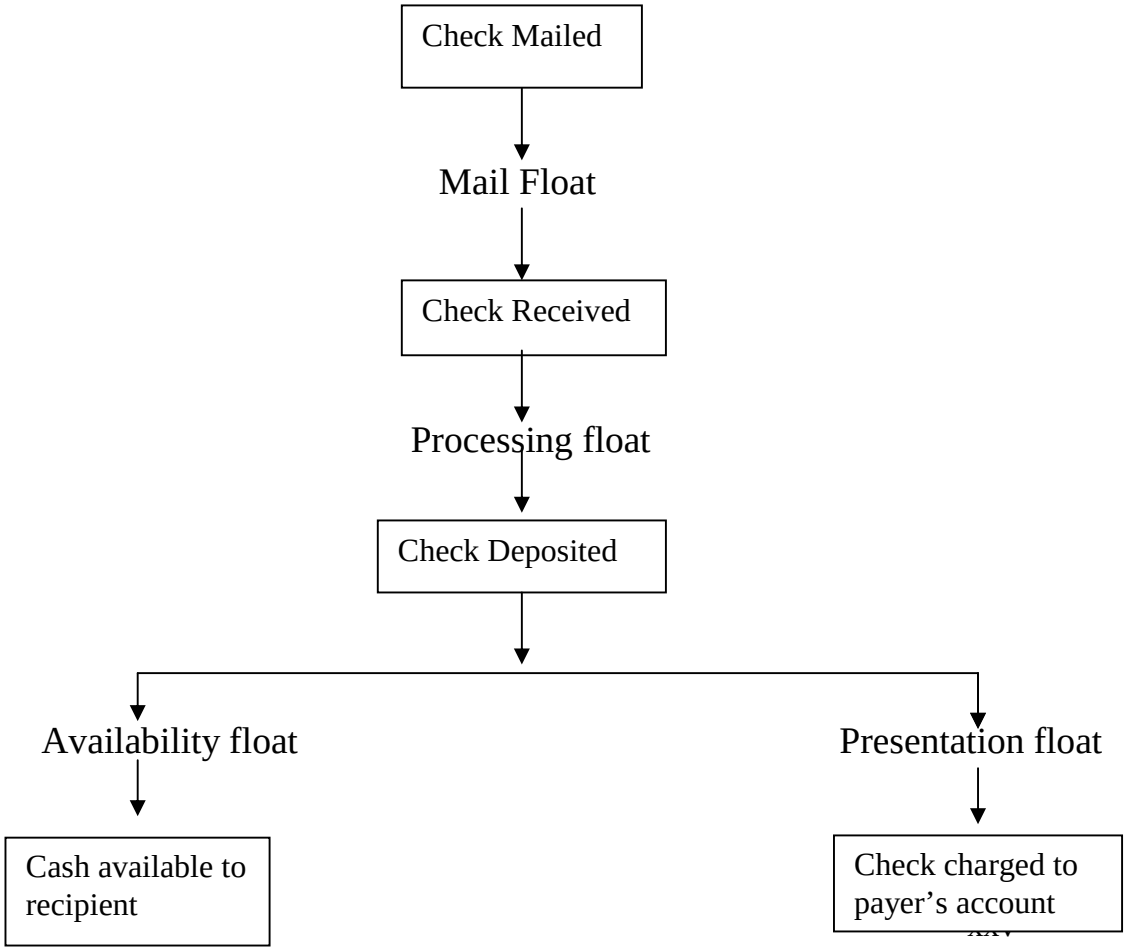
Cash, when held, as an assets how no earning capacity. Nevertheless, business firms have to hold cash for three different motives, which are (i) Transaction motive, (ii) Precautionary motives, (iii) Speculative motives. As Keynes how identified. However My Khan and PK Jain have also taken into consideration 4. Compensation motives, yet another motives.

2.2.2 Efficiency of Cash Management

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

i. Speed cash collection of usable cash

Cash collection can be accelerated by reducing the log or gap between the time a customer pays his bills and the time the cheque is collected and funds become available for use. Within this time gap the daily is caused by the mainly time. The amount of cheque sent by customers but not yet collected is called deposited float. The greater the deposit floats the longer the time taken. There are mainly two techniques, which can be used to save mailing and processing time concentration banking, lock box system. Which process can be presented by the following pictures.



Recipient sees delays as collection float.

[Source: Brealey Mayers “Principles of Corporation Finance”. Fourth Edition P.N., 793.]

ii. Concentration Banking

Concentration banking is a system of centralizing corporate cash in order to control the firm's fund and minimize idle cash balance. Under these systems a concentration bank is designated to receive funds from lock boxes or any of the subsidiaries, depository to instruction given by the firm. The second method of concentration banking employs a Depository Transfer Cheque (D.T.C), that can be a paper or electronic. A corporation have many current in various braches should have a major account only in the bank of concentration to minimize the size of float.

iii. Special Handling Cash

Special handling of cash enables corporations to have sufficient funds that can be put to profitable use.

iv. Slowing Disbursement

Apart from speedy collection of account receivables the operating cash requirement can be reduce by slow disbursement of account payable. It may be recalled that a basic strategy of cash management is to delay payment as long as possible without impairing the credit rating of the firm. In fact, slow disbursement represent a source of funds requirement no interest payments. There are some techniques to delay are: avoidance of early payment centralized disbursement, floats and accruable.

v. Cash Velocity

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

Annual Sales

$$\text{Cash velocity} = \frac{}{\text{Average Cash Balance}}$$

vi. Minimum Cash Balance

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

vii. Synchronized Cash Flows

Situation in which inflow coincide with outflows.

viii. Using Float

Float is defined as the difference between the balance shown in a firm's (individual's) chequebook and the balance on the bank's records.

ix. Overdrafts Systems

A system whereby depositors may write checks in excess of their balance with their banks astronomically extending loans to cover the shortage. Most of the foreign countries use overdraft systems.

x. Transferring Fund

There are two principle method wire transfers and electronic depository transfer. It is systems for moving funds among accounts at different banks.

2.2.3 Different Technique of Cash Management

i. Cash Planning

Cash planning can help anticipate future cash flows and needs of the firm reduces the possibility of idle cash balances and cash deficits.

“Cash planning is a techniques to plan for and control the use of cash” (Pandey, 1992:483).

ii. Cash Budget

"The cash budget is forward looking. It seeks to estimate future cash receipts and cash disbursement. Forecasting is necessarily involved” (Weston and Copeland, 1990:762). The cash budget is a planned statement which is prepared near the end of the annual planning cycle along with the planned income statement and balance sheet cash budget is the most significant device to plan for and control cash receipt and payment.

iii. Cash Forecasting

A useful tool to deal with the forecasting aspect of cash budget is the cash forecast. It may be done on following basis:

Short term cash forecasting

It helps to determine operating cash requirements, to anticipate short term financing and to manage of investment of surplus cash. Under it, two must common method are applied which are described as below.

a) **Receipt and disbursement forecast**

The primary aim of receipt and disbursement forecast is to summarize these flows during predetermined period. All the items under these methods are listed to exercise close control over the changes in cash flows. This technique can be used for both range and short range forecasting.

b) **Adjusted net income method**

(Sources and use approach)

This approaches have two objectives i.e. to project the company’s need for cash at same future data and next to show if the company can generate this money internally, and if not how much will have to either borrow or raise in the capital market. Source of cash uses of cash and the adjusted cash balance are different three section of this method.

Long term cash forecasts

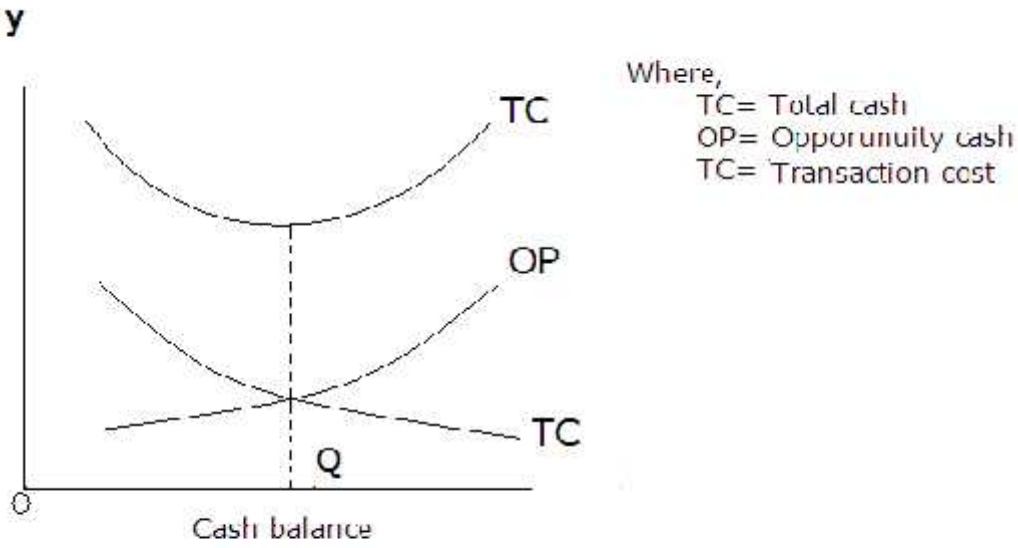
Perhaps, such type of forecast are prepared to provide an idea about the financial requirement of the company for distance future. These forecast are not detailed as the short term forecast. The long term cash forecast can be used to indicate a company's future financial needs for specially for its working capital requirement.

2.2.4 Determining Optimum Cash Balance

The main responsibilities of financial manager are to maintain a sound liquidity position of the firm. So that dues may be settled in time. The firm needs cash for many of the transactions purposes. So, cash balance is maintained as a buffer or safety. If the firm maintains a small cash balance, its liquidity position becomes weak and suffer from a scarcity of cash to make payments. If the firm maintains high level of cash balance. It will have a sound liquidity position and higher profitability can be attained by investing fund in some profitable opportunities. Thus, the firm should maintain an optimum cash balance, the transaction cost and risk too small a balance should be matched with the opportunity cost of too large balance. It can be showed by the following graphs.

Fig. No. 1

Optimum Cash Balance



If the firm maintain larger cash balance it's transaction cost would decline the opportunity cost would increase and if the firm maintain small amount of cash balance, just reverse cash holding cost is to be occurred. Thus 'Q' point is the optimum cash balance point which a firm should seek to achieve, where is to minimize the total costs.

2.2.5 Cash Management Models

Analytical model for cash management are in different forms.

i. Baumol model
ii. Miller Orr models
iii. Orgler's models

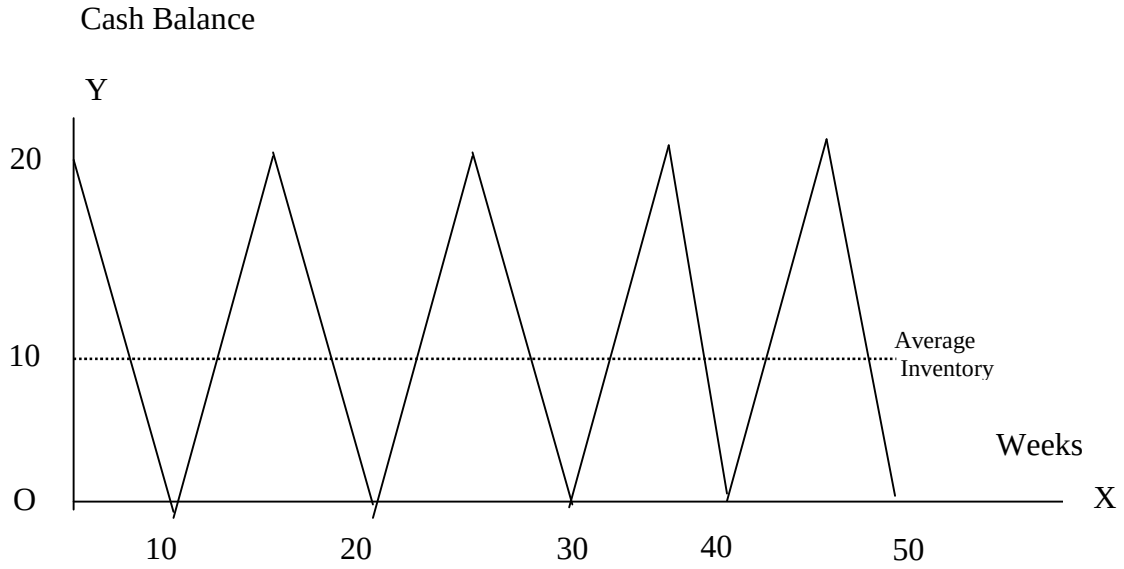
iv. Cash management models

a. Baumol Model (Baumol, 1952:356-361)

Baumol model is one of that method, which can be used for minimizing the opportunity cost of holding cash and maximizing the return on the available funds, the cash balance should be maintained at a minimum level and the funds not required from immediate use to be invested in the marketable securities.

It is simple inventory model that tells something about the management of cash balance. This model is specially based on the following assumption that the cash is used at a constant rate. The periodic cash requirement is more or less and there are some costs such as opportunity costs that increase and other costs such as transaction costs that decrease the cash balance. We can describe it by taking help of following figures.

Fig. No.: 2
EOQ model OF Cash Balance



After analyzing the above figures, the model prescribes an optimal size of cash balance and the optimal size of cash transfer from marketable securities to cash account and borrowing. It is normally not required to maintain safety stocks. What matter for a firm is the total of opportunity cost and the transaction cost? Therefore, the objective of model is to minimize the total cost.

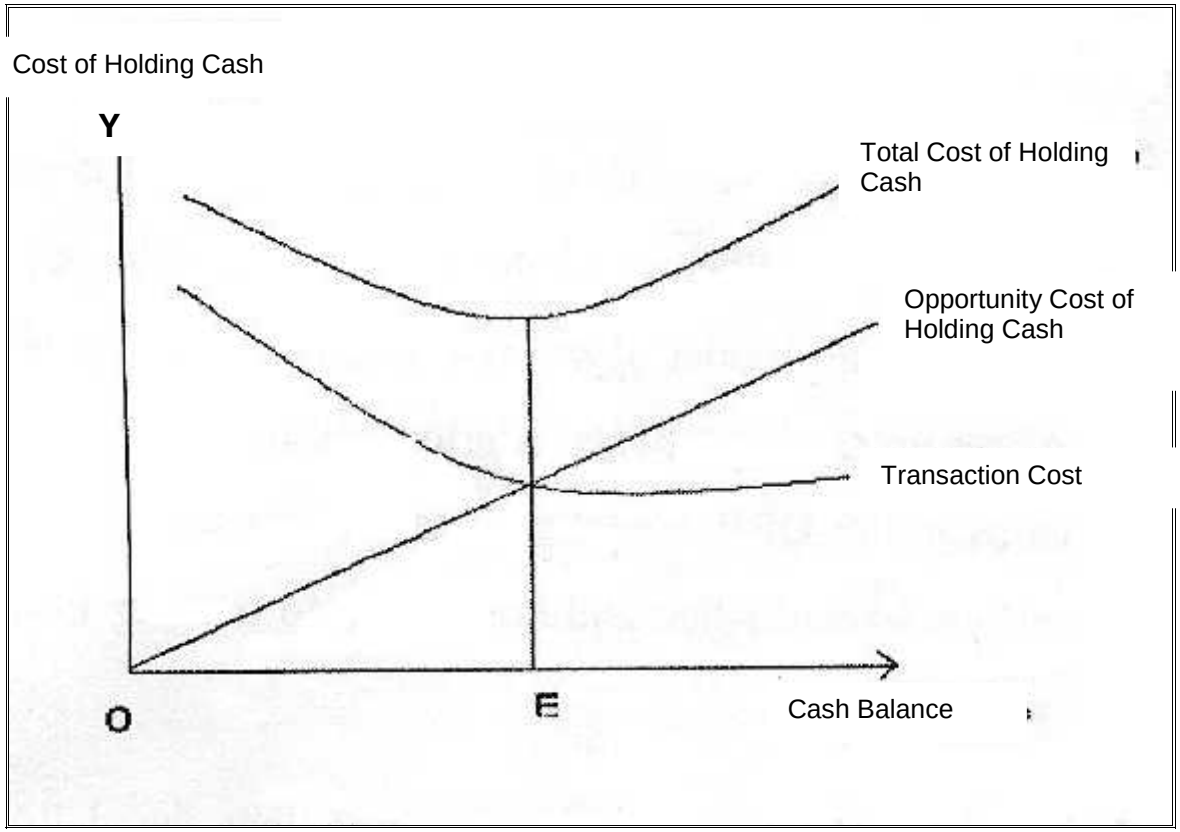
Optimal Cash bal (Q) =

$$\frac{\sqrt{2 \mid Anual\ Cash\ disbursement \mid Cost\ per\ Sales\ of\ Securitie\ trreasury\ bill}}{Intrest\ rate}$$

In Baumol model, increasing the interest rate reduces the optimum (Q). In general, when interest rate becomes so high, the small average of cash is to be hold. On other hand, when it becomes low, the large average of cash become to be hold.

The figure below shows the relationship between the average size of cash balance and various costs associate with the cash maintenance.

Fig. No: 3
Relationship between Cash and Various Cost



Numerically, the optimal size of cash transfer from investment accounts or line of credit, where optimal size if cash is determined by using the given formula.

Optimal size of cash (E) = $\sqrt{\frac{2FR}{K}}$

Where,

F = Fixed transaction cost per transaction
R = Requirement of cash per period
K = Opportunity cost of holding cash or interest on borrowing.
The average cash balance (C) is calculated as follows.

C = $\frac{E}{2}\Gamma M$

Where, M = minimum balance of cash for precautionary purpose.

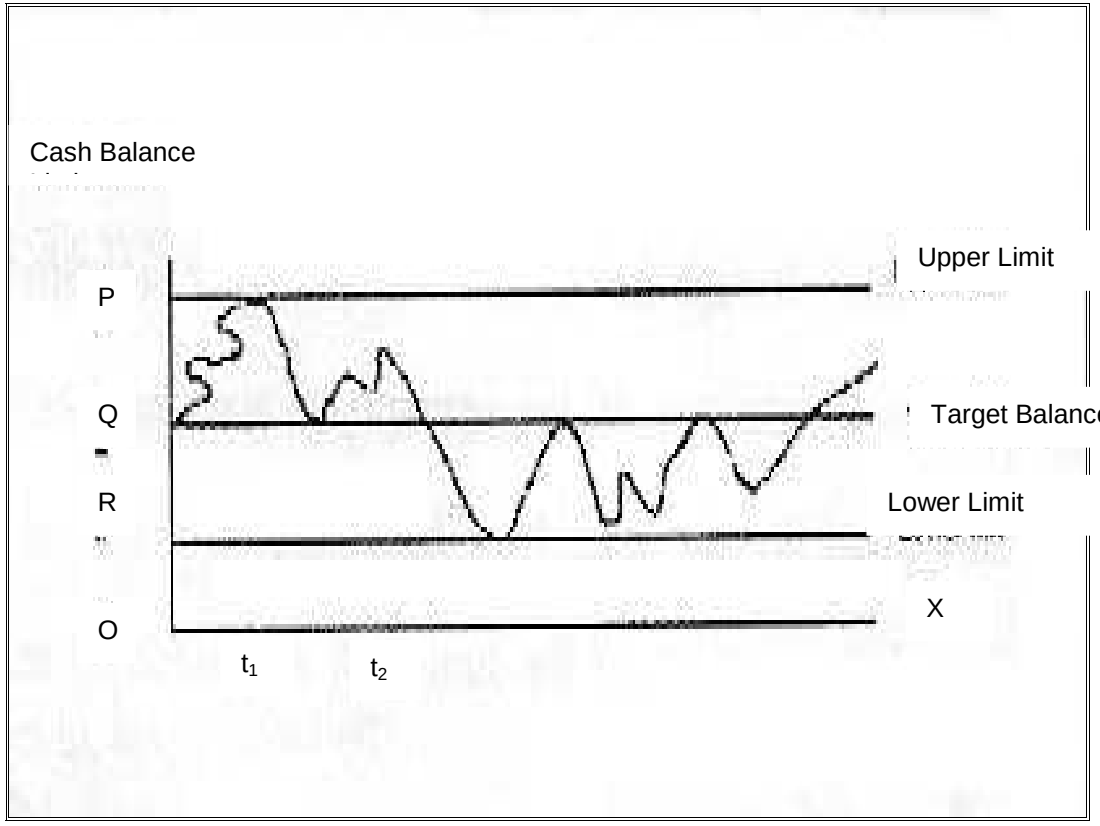
ii. Miller Orr model (Miller and Or, 1966:413-435)

Miller and Orr (1966) expanded the Baumol model by incorporating a stochastic generating process for periodic changes in cash balances so that the cash pattern resembles that shown in figures. In contrast to the completely deterministic assumptions of the Baumol model. Miller-Orr assume that net cash flows behave that changes in cash balances over a given period are random in both size and direction and that they form a normal distribution as the number of periods observed increases. The model allows for a priori knowledge. However, that change at a certain time has a greater probability of being either positive or negative (Miller and Orr, 1966).

The model is based on the assumption that the daily net cash flows are random in sizes as well as in the negative or positive flows and are normally distributed in the long run. The models sets a range of high and low limits with in when the cash balance is allowed to fluctuate and sets the target cash balance between these two limits.

This model is designed to determine the time and size of transfers between on investment account and the cash account according to a decision process illustrated in the following figures.

Fig. No. 4
Miller-Orr Cash Management Model



Mathematically the model is set as follows:

$$A = \frac{3F\sigma^2}{4i}^{\frac{1}{3}} \Gamma L$$

And the average cash bal. is computed as follows.

$$C = \frac{4Z\,ZL}{3}$$

Similarly, upper limit is computed by

Upper limit (U) = 3Z (Three times the optimal cash bal)

Where,

Z = target cash balance

F = Fixed cost for transactions

$\pm^2$ = Variance of the net daily cash flows

i = Daily interest

L = Lower limit

iii. Orgler's Model (Orgler, 1970:419-425)

This model basically uses one year planning horizon with twelve monthly periods because of its simplicity. It has four basic sets of decision variables which influence cash management of a firm and which must be incorporated in to the linear programming model of the firm. These are: (i) payment schedule, (ii) short-term financing, (iii) purchase and scale of marketable securities and (iv) cash balance itself. According to this model, an optimal cash management strategy can be determined through the use of a multiple linear programming model. The construction of the model comprises three sectors: (i) selecting the appropriate planning horizon, (ii) selecting the appropriate decision variables, (iii) formulation of the cash management strategy itself. The advantage of linear programming model is that is enables co-ordination of the optimal cash management strategy with the other operations of the firm such as production and with less restriction on wonting capital balances.

Under the formulation of the model requires that the financial manger first specify an objective function and then specify a set of constrains. 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 all revenue generated is immediately re-invested and that any cost is immediately financed, the objective function represents the value of the net income from the cash budget at the horizon. Thus the objective function recognizes each operation of the firm that generates cash inflow of cash outflow as adding or subtracting profit opportunities for the firm's cash management operations. In the objective function, decision variables which causes inflows, such as payment on receivables, have positive co-efficient, while decision variables which generate cash flow, such as interest in short-term borrowings have negative coefficient. The purchase of marketable securities would, for example produce revenue and thus have a positive co-efficient while the sale of those securities would incur convention costs and have a negative co-efficient.

The constraints of the model could be (i) institutional or (ii) policy constraints. The institutional constraints are those imposed by external factors. E.g. banks require compensative balance. Policy constraints are imposed on ash management by the itself. For instance, the financial manager may be prohibited from selling securities before maturity. Either constraint can occur in the model during one-month period or over several or all the months in the one-year planning horizon.

An example of the linear programming model is as follows:

Objective function: Maximum profit = $a_1x_1 + a_2x_2$

Subject to:

b_1x_1= production

b_2x_2 = constraints

$c_1x_1+c_2x_2 \leq$ Cash available constraints

$8_1x_1 + 8_2x_2 >$ Current assets requirement constrains

A very important feature of the model is that it allows the financial managers to generate cash management with production and other aspects of the firm.

iv. Cash Management Models (Weston and Copland, 1990:784-785)

In this model, it is assumed that the firm on average is growing and is a net user of cash. Marketable securities represents a buffer stocks between episodes of external financing, which is drawn down as required periodically. Ordered cost are represented by the clerical and transactions costs of making transfers between the investment portfolio and the cash account. The holding cost is the interest foregone on cash balance held. Assuming that expenditure occurs evenly over time and that cash replenishments come in jump sums a periodic intervals, the optimal size of the cash transfer is formulated as follows:

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

Where,

C* = The optimal size of cash transfer

T = The total cash uses for the period of time involved

B = The cost of the transaction in the purchases or sale of marketable securities

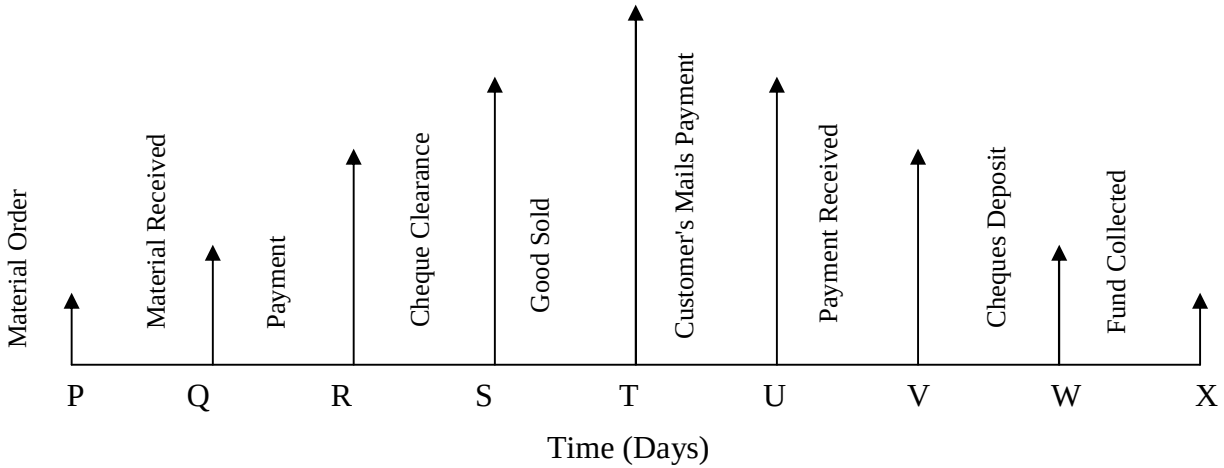
i = The applicable interest rate on marketable securities.

2.2.6 Cash Cycle

The cycle refers to the process by which cash is used to purchases material from which are produced goods, which are then sold to customer's, who later pay bills. Thus opportunities to improve cash cycle help in best management of cash (Solomon and Pringle, 1978:178). The cash cycle involves several steps along the way as fund flow from the final accounts as shown below

Fig. No. 5

Cash Cycle



Sources: Details of cash cycle p. 197 (Ezra Solomon and John J. Pringle: An introduction to financial management).

The financial needs of corporation is affected by the total time lag from point 'P' to 'X' showing from the above cash cycle figure we are concerned with the time periods involved in stages QRS and UVWX. It may be mentioned that a firm has no control over the time involved between stage Q and R and similarly S and T so on is determined by production by credit terms and the payments policy of customers.

A company needs a certain periods (i.e weeks/monthly) to collect fund from beginning to ends of material ordered to have ultimate cash. Different stops have their different duration period to go for further steps. In this way after going through all the steps, the funds will be collected. In short, cash cycle plays a vital role in the business operation activities and such cycle can be repeated in time to time as a circulating blood of human body. This is applicable only for direct selling of customer goods but in a manufacturing concern the time lag may be greater.

2.3 Review of Books

The basic concept of cash management has been searched in to this section of literature review. Textbooks that have been prescribed under academic studies are the primary sources on financial management, which deals with the management of cash.

After various research studies on cash management by the well-known professors western and Brigham provides sound knowledge and guidance for the future studies on the field of management. Cash management in any enterprises and naturally this study as well. They explain in the beginning the motives for holding cash. Specific advantage of adequate cash synchronization of cash flows, expending collection and cheque clearing. Using float, cost of cash management, determining min. cash balance, compensating balance overdraft system cash management, marketable securities substitute for cash criteria for selecting securities investment alternatives management of account receivables credit policy, evaluating change in credit policy (Weston and Brigham, 1978:365-92).

A well-known Indian Professor I.M. Pandey has described some conceptual ingredients, which are based on his various research studies. We can learn lesson from it and also helpful for this study indeed. He described various concept of cash management. Motive of holding cash, cash planning, cash forecasting and budgeting and the cash flows, determining the

optimum cash balance (Pandey, 1992:543-565). Similarly Indian Professor M.Y. Khan and P.K. Jain defined that cash management is one of the key areas of working capital manage. Apart from the fact that it is the most liquid current assets can be reduced because the other major liquid assets get eventually converted in cash (Khan and Jain, 1990:664).

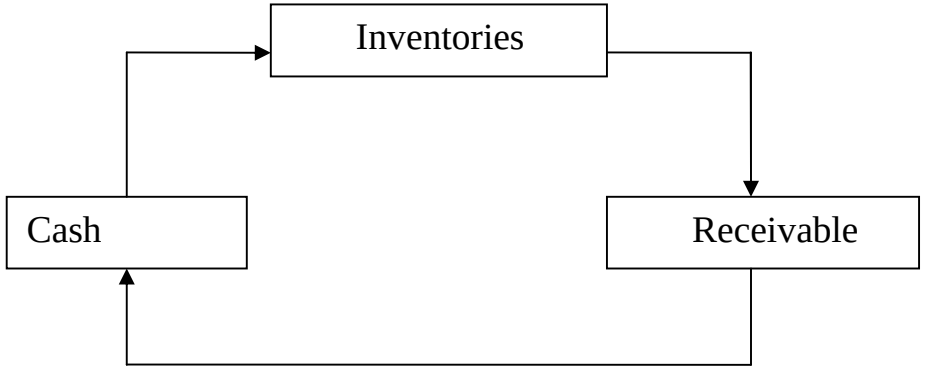
"The relation between sales growth and need to finance current assets is closed and direct" (Weston and Brigham, 1973:138). The growth of sales means generation of more funds provided such constitute cash sales and this enables corporation to be self supporting without any need to tap additional funds for current assets but if there are more credit sales, the size of account receivable, rise so that for the short period. Corporation has no manage funds either through effective credit policy to have quickly. Collection or arranging a bank loan for short period. The amount of earning also decide how much to interest in current assets as more earning lead to more inflow of cash enabling corporation to meet cost of operation easily.

We also received from theoretical concept on the component of cash management from Van Horne's book (Van Horne, 1990:389-415). He has categorized the various component of cash management. These are the functions of cash management managing collection transferring funds concentration banking. Lock box system and other procedure disbursement. Zero balance account, electronic funds transfer, balancing cash and marketable securities, compensating balance and fees, model for determining optimal cash inventory model stochastic model. A probabilities approach for optimal level of cash.

Some theoretical concept of cash management in relation of working capital has been taken from the book: Financial management Accountancy" by SP Jain and KL Narang (Jain and Narang, 1988:174-175). First of all it is obvious that cash is component that correlated with working capital, which is known to be a current assets. The circulation nature of current assets can be presented as figure given below.

Fig. No. 6

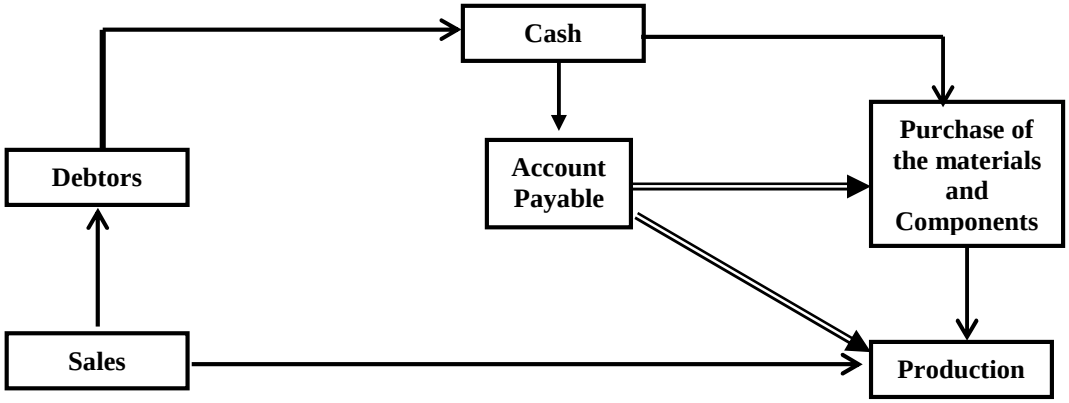
Circulation Nature of Current Assets



"A firm begins with cash which is used for purchase of row materials and budget in components. Material and other operating supplies can also be purchased on credit, which in turn generates account payable. Further cash is expanded to pay the labour and other manufacturing costs and further trade credit obtained to enable production of finished goods. Which are eventually sold on credit giving rise to account receivables. The collection of receivables giving rise to accounts receivables. The collections of receivables bring cash in to the firm and credits are paid. The average time elapses between the acquisition of materials or services entering in the manufacturing process and the final cash realization constitutes on operating cycle (Jain and Narang, 1998:174-175).

The working capital cycles can be presented as given below:

Fig. No. 7
Working Capital cycle



Therefore, nature and interrelationship of working capital can be best understanding by the above figure of operating cycle of the firm.

But decline in earning but burden of liquidity and additional investment in current assets. The highly developed money market and efficient banking services make easy availability of credit at any time when it is indeed and such situation corporation can avoid maintenance of higher cash balance and also can easily discount account receivables. But lack of these services compel corporation to follow precautionary policy of holding more current assets. The turnover of corporations is equally important to be considered as quick turnover, which means ability of corporation to have fast process of conversion, makes no burden of liquidity

and they're by helping to undertake further production expansion. But prospect of business have much to do in the overall evaluation of current assets.

During the peak seasons, corporation has to keep more stock of commodities readily available to meet increasing demand it can generate cash quickly. However during the condition of recession, the current assets should be converted in the cash. The taxation policy and other subsequent developments that take place within a give cycle also affect management of current assets. In view of the consideration of the above factors. Current assets management involves a common set of problem concerned with the size of investment required in those assets (William, 1973:10).

2.4 Review of Thesis

There were only three dissertation written on cash management when browsed through computer records of these reports presented earlier in Tribhuvan University Library. The very fact that there was written on cash management encouraged this research to write thesis on this particular branch of financial literature.

One of these theses was by Dr. Subarna Lal Bajracharya presented in 1990 entitle "*Cash Management in Nepalese Enterprise*". The study was a detailed cash management study of he prominent Nepalese enterprises finally recommending a new cash management model suitable in Nepalese context. Since the thesis presented was for PhD degree, most of the data analyzed were primary data and a greater detail. The thesis examined practices of cash management in selected Nepalese enterprises through questionnaire distributed to various authorities of the enterprises. The thesis was rather an inspiration to this study to undertake this thesis, than a source of quantitative information.

The other thesis report reviewed was presented by Mr. Bijaya Pradhan in 1997, entitled A Study of Cash Management of Salt Trading Corporation Ltd. As partial fulfillment of the requirements for the degree of master's of business studies. The thesis was based on the secondary data of the company for the past six years and it analyzed the major aspects of cash management such as analysis or liquidity, cash management and account receivables through various financial ratio analyses.

The major finding of his study has been presented as under:

a) STCL could not make the best use of available cash balance prudently.
b) The cash collection efficiency in this corporation is very low.
c) The collection of trade credit in the corporation is low during the three years of the study period.
d) Management has taken liberal credit policy to sales of goods. Hence the cash and bank balance of the study period is minimum of AR.
e) No optimum cash balance is maintained. The cash and bank balance with respect to current assets has been in fluctuating trend. Similar is the case with the respect to the total assets.

Likewise, recommendation of the study has been under following heading:

a) Efficient management of cash.
b) Prepare monthly trial balance cash fund flow statement and financial reports.
c) Design effective account receivables management.
d) Adopt effective credit policy.
e) Maintain optimum cash balance.
f) Invest surplus cash in profitable opportunities.

g) Prepare cash budget.

h) Invest in marketable securities.

Following shortcomings have been identified in the thesis:

- Inadequate use of financial and statistical tools.
- Profitability ratios have not been worked out and thus a major portion of the study, i.e. analysis of relation between liquidity with profitability has been found missing. This analysis holds significant because of conflicting nature of liquidity and profitability. " …. If a farm does not have adequate working capital, i.e. it does not invest sufficient funds in current assets, it may become illiquid and consequently may not have the ability to meet its current obligations and thus invite the risk of bankruptcy. If the current assets are too large, the profitability is adversely affected. The key strategies and considerations in insuring a trade off between profitability and liquidity is one major dimension of working capital". (Khan &Jain, 1986, p.7-8).
- Acid-test ratio and current ratio has not been including in analyzing liquidity position. These ratios have been considered the most effect tools for analyzing liquidity position of an enterprise.
- Analysis of cash flow statement has been found missing. This analysis is important because it analysis movement of cash, internal financing management and success or failure of cash planning.
- Cash budget analysis has been missing. This analysis also holds particular significant for it assesses efficiency of a firm in speculating cash defect and surpluses in future.

The other thesis was presented by Biranji Gautam 1999, entitled. "A Case Study of Cash Management on Gandaji Noodles Pvt. Ltd." On the partial fulfillment of the requirements for the degree of master's of business administration.

During research studies, secondary data were used. Published by Gandaji Noodles Pvt. Ltd. After studying this minutely, there are also some major finding, recommendations and short coming has been identified

Keeping in view these shortcomings in the reviewed thesis, an effort has been made to analyze cash management in comparatively broader perspective in the subsequent thesis

Nevertheless, there were plenty of dissertations, which were closely related to cash management. For instance working capital management, receivables management and inventory management are the topic, when are in some way related to cash management.

Thus it was identified that there are still a lot to explore in cash management function of the financial literature. It was clear from review of literature that a dissertation on cash management is one of the uncommon undertakings; there were several alternatives to begin an undertaking of a thesis. Alternative such as case study, comparative analysis, study of more than two enterprises, etc. were some of thesis. Likewise, the other variations of alternatives are the types by legal status of enterprises existing in the country; for instance private enterprise, public enterprise, partnership enterprise, government enterprise, or the other combination could be by the type of goods or services these enterprises are producing; for instance develop industry, pharmaceutical industry, cigarette factory, financial institutions, paper and paper products industry, and so on. The complications got simplified after the following literature review.

2.5 Review of Government Publication and Newspaper

The literature review of government publication imparted an in depth knowledge on the degrading situation of PEs of the country. However, these authorized publications could only state financial performance of public enterprises, and little is

stated about the phenomenon of shortcoming in the financial literature. To put it differentially, these studies are more descriptive then analytical, which would simply describe the condition rather analyze the situation. It is common to hear that the financial performance of public enterprises are disappointing and the state publications further high lighted this fact; and thus the very idea grabbed the attention of the researcher to concentrate his study in any of the existing public enterprises.

The secondary data collected from ministry of finance, the economy survey of 2006/07, 2007/08 and 2008/09 received from ministry of finance, highlighted the worsening conduction of PEs. Likewise publication of Nepal Government, Central Bureau of Statistics such as "Census of manufacturing establishment 2006/07 further added to the worsening condition of these PEs.

The literature review has been presented by the following heading:

a) Review of Census of manufacturing establishments of 2006/07

(Sources: Central Bureau of Statistic, Thapathali).

In order to classify the industries of the world by various categories like by type, legal status, fixed assets, size of person's engaged, ownership, united nation has prescribed international standard industrial classification (ISIC). On the basis of ISIC, Nepal Government has formulated Nepal standard Industrial classification (NSIC) to classify the enterprises of Nepal. The census of manufacturing establishment conducted by Nepal Government, Central Bureau of Statistics in the year 2006/07 was totally based on this NSIC.

According to the census, there are 38 public manufacturing enterprises (According to economic survey of 2065/66) out of a total of 3213 (According to census of manufacturing establishment 2006/07) manufacturing establishment of the country (Detail's included in the appendix).

The condition of public enterprises in Nepal has been dismal since the very beginning of its history in Nepal. Declining financial regulation and according efficiency of these state. Owned enterprises owing to politically infected bureaucracy together with raging corruption has been the very basis for their devastating performance. Ministry of finance has been publishing annual report on financial aspects on various business sector of the country and such reports have been vividly indicating that the financial performances PEs have been dissatisfactory every year.

2. Review of economic survey of 2006/07, 2007/08 and 2008/09, Ministry of Finance

The latest annual report on financial status of public enterprises (PEs) published by ministry financial has further highlighted the dare side of these government owned enterprises compared to previous financial performances, and thus the issue of the downfall of PEs have been a hot topic for the media of the country.

By analyzing these above reports of economic survey, in FY 2064/65, the investment rate of Nepal Government towards PEs was decreased by 4.5 percent on share and 32.4 percent on debenture as comprises of last fiscal year (i.e. 2063/64). But the trends of cash flow from public enterprises towards Nepal Government were decreased by 4.3 percent in FY 2064/65 as compare to last FY 2063/64. after analyzing the financial performance of PEs in FY 2064/65. it seems that there was 5.4753 billion shown in operating loss. such types of operating loss also in FY 2063/64 was Rs.1.3532 billion. The gross capital investment of Nepal Government in PEs was Rs.150.0882 billion in FY 2064/65 and in FY 2065/66 it was Rs.157.00743 billion. In this way the return trend is also declining every year.

In addition to, the economic survey report are future visualized a disappointing picture for all the six sectors (manufacturing, trading, social, services, financial end public utilities and others) of PEs. The figure shows that the PEs recorded downfall in their operational profit in declining position.

Some of the PEs maintain financial statement with the completion of audit within a fiscal year and others have not maintained updated accounts clarifying their deteriorating financial position. Therefore it has been a trouble some task for the researchers to carry out research activities of most of the public enterprises owing to this inadequacy of audited financial statements when asked for unedited data and trial balances.

A list of public enterprises and their relation with profitability has been presented below.

Table No. 2
Top five profit making PEs in FY 2065/066

Name of Public enterprises	Profit amounts in Rs. (lakh)
Nepal Telecommunication Corporation	19198.00
National Insurance Corporation (Life)	7733.00
Agricultural Development Bank	761.00
National Trading Ltd.	362.00
Nepal Industrial Development Corporation	255.00

Source: Working Progressive and Target Reports of PEs (2064/65 – 2065/66), From Ministry of Finance.

Table No. 3
Bottom Five Loss Making PEs in FY 2065/66

Name of public enterprises	Loss amount in Rs.(Lakhs)
Nepal Oil Corporation	(23095.00)
Rastriya Banijya Bank	(17060.00)
Nepal Electricity Company	(13182.00)
Hetauda Cement Industry Ltd.	(831.00)
Nepal Oriend Magnetite Pvt. Ltd.	(673.00)

Sources: Working Progressive and Target Reports of PEs (2064/65 – 2065/66), From Ministry of Finance.

List of PEs operating under profit for last three years (2063/64 – 2065/66):

1. Janakpur Cigarette Factory
2. National Trading Limited
3. Industrial sector Management Ltd.
4. Nepal Engineering and Consultancy Service
5. National productivity and Economic Development Center
6. Janak Siksha Samagari Centre Ltd.
7. Nepal Telecom Corporation
8. Agricultural Development Bank
9. Nikshep Bima Thaka Karja Surachhana Nigam
10. Nepal Housing and Financial Company
11. citizenship Investment Fund
12. Life Insurance Corporation

List of PEs operating under loss for last three years (2063/64 – 2065/66).

1. Rastriya Banijya Bank
2. Nepal Electricity Company
3. Nepal Drinking Water Corporation
4. Royal Nepal Airlines
5. Agricultural Material Company
6. Nepal Oriental magnesite Pvt. Ltd.
7. Royal Drug Ltd.
8. Nepal Rosin and Turpentine Ltd.

9. Lumbini Sugar Factory Ltd.
10. Hetauda Cement Factory Ltd.
11. Herbs Production and processing Co. Ltd.
12. Dairy Development Corporation
13. Krishi Chun Udyog Ltd.

Sources: Work Progressing and Target Report of PEs (2064/65 – 2065/66) from Ministry of Finance.

By getting some knowledge about the performance of PEs from newspaper in our country. We can easily estimate the financial position of PEs simultaneously.

It is to be noted that Dairy Development Corporation which has been operating under lost for last three years, is the public enterprises under study in this dissertation.

These literature reviews indicated that almost all the public enterprises are operating under loss. The financial performances of these PEs have been seen disappointment, cash management is not doubt an integral part of finance functions, and research undertaking on cash management function is one of the rarest undertaking as seen in T.U. Library.

Thus, these literature reviews put forwards a suggestion to undertake research on one of these PEs on its cash management part. Since, this researcher is currently associated with Dairy Development Corporation, which has been operating under loss for the last three years.

CHAPTER – III

RESEARCH METHOLOGY

3.1 Introduction

The basic objective of this study is to analysis the cash management of DDC. Mythology states the method with which data have been extracted and discussed the tools that have been used in interpretation of such data to fulfill the objectives. Thus in this chapter focus is made on research design, the population and the sample, nature and sources of data and processing procedure tools and techniques used for cash management to analyze the data.

3.1.1 Research Design

This study is the case study research of dairy Development Corporation, one of the oldest public manufacturing enterprise of Nepal. Historical financial data of last ten fiscal years of the company have been the basis of the study. The balance sheets and profit & loss a/c for last ten years have been compared to analyze the cash management of the company.

3.1.2 The population and sample

Public manufacturing enterprises in Nepal are a total of 38 (according economic survey of 2065/66) DDC is one of them. So the existing number of public manufacturing enterprises in Nepal refers to the population and dairy development corporation the sample Since DDC is the oldest public manufacturing dairy company. It is most likely to represent all other public manufacturing enterprises particularly the dairy company of the country. However this is a case study, and thus the finding couldn't be extensively generalized to all other public manufacturing enterprises.

3.1.3 Nature and source of Data collection

This study is based upon the primary and secondary data. Basically secondary data has been collected from annual reports, which comprises the financial statements such as: balance sheet and profit and loss account are the data collected for analysis. Thus this is main source of data and other necessary data concerning with this research study was obtained through the research authorized staff at central office of DDC Lainchour Katmandu. Some of this data were published while other unpublished the balance sheet and profit and loss account were obtained for the last ten-year (i.e. FY 2056/57 to 2065/66) to attain the objectives of the study both primary and secondary data have been collected through questionnaire, contact officer and other related person. Mainly the format of questionnaire is given in appendices of this research work.

3.1.4 Financial and statistical tools and techniques for analysis of data

To find out the true picture of " Cash management" of DDC the financial analytical tools and statistical tools has been used for the quantitative analysis of secondary data are as follows.

I. Ratio Analysis

1. **Analysis of cash turnover**

The cash turnover ratio explains how quickly the cash is received from the sales or in other words it measures the speed with which cash move through an enterprises operation. Cash turnover ratio is obtained by following formula.

$$\text{Cash Turnover} = \frac{Sales}{cash\ in\ hand\ and\ bank}$$

2. **Account receivables/ Debtors turnover ratio**

Receivable turnover ratio gives an idea as to how quickly receivables are covered in to sales. The ration can be computed as follows:

$$\text{Debtors turnover ratio} = \frac{\text{Total sales}}{\text{Receivables}}$$

With computation of this ratio, average collection period of receivables is also calculated. Shorter average collection period refers to good credit management and vice versa. But too short collection period suggest that the company has a rigid credit policy and thus sales curtail would be the consequences as sales transaction is only targeted to parties making payment promptly.

The average collection period can be computed as follows:

$$\text{Average collection period} = \frac{\text{Days in a year}}{\text{Debtor's turnover ratio}}$$

Where,

$$\text{Collection of account} = 1 - \frac{\text{Re}\,ceivables}{Sales} \mid 100$$

3. Account Receivables to cash and Bank Balance

This ratio measures the cash and bank balance in relation with account receivables (or sundry Debtors) of the firm. Higher ratio refers to sound liquidity position and vice verse. However, too high ratio is indicative of the fact that business dealings are restricted to only. Those parties making quickly payment, thereby limiting its scope of sales volume.

It is computed by:

$$\text{AR to cash and bank bal.} = \frac{\text{Cash and bank}}{\text{Account Receivables}}$$

4. Analysis of Cash to Current Liabilities

It calculates the cash balance available with the firm in meetings payment of current liabilities. Moderately higher ratio indicates good liquidity, too high and too low ratio is unfavorable for the firm since to high indicate excess cash balance held idle and too low ratio means the firm unable to meet current liabilities.

It is computed as follows:

$$\text{Cash to C. L.} = \frac{\text{Cash and Bank}}{\text{Current Liabilities}}$$

5. Analysis of Cash and Bank Balance to Current Assets

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

It is computed as follows:

$$\text{Cash and bank balance to C.A.} = \frac{\text{Cash and Bank}}{\text{Current Assets}}$$

6. Analysis of Current Ratio

It examines the position of the company as to it's holding of current assts it's current liabilities. Higher ratio indicates satisfactory position and vice versa. However, too high ratio is indication of poor cash management indicating high inventory and of poor credit management .The idle current ratio is 2:1,however for a public enterprise, the ratio tend to be little current

assets. But nevertheless any company should maintain this ratio above 1:1, since ratio lower then this definitely indicates poor liquidity position.

The ratio is computed as follows:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current Liabilities}}$$

7. Analysis of Quick Ratio or Acid Test Ratio

It is calculate by deducting inventories form current assets and dividing the reminder by current liabilities. Inventories are typically the least liquid of a firm's current assets and the assets on which losses are most likely to occur in the event of liquidation. Therefore, this measure of the firm's ability to pay off short-term obligations without relaying on the sales of inventories is important.

$$\text{Quick ratio} = \frac{\text{C.A. - Inventories}}{\text{C.L.}}$$

This ratio is superior to current ratio comparing this ratio with current ratio gives a clear idea as to if current assets have been tied up in inventory or not.

8. Stock Turnover Ratio/Inventory Turnover Ratio

The inventory turnover is defined as the cost of goods sold divided by inventory. Analysis of this ratio gives an idea on how quickly the least liquid current asset. i.e. inventory is converted into sales.

It is computed as follows:

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

9. Total Capital Turnover Ratio

The total capital turnover is of interest because total capital represents the portion of total assets that is financed by sources carrying explicit costs it's calculation.

$$\text{Total Capital Turnover Ratio} = \frac{\text{Sales}}{\text{Total Capital}}$$

10. Investment Rate

The investment rate is calculated as the percentage by which the total capital in a year has increased over total capital of the previous year. Investment is defined as the change in total capital between two time periods.

$$\text{Investment rate (For current Years)} = \frac{\text{Total Capital for Current Year-Total Capital for Previous year}}{\text{Total Capital for Previous Year}}$$

11. Net profit Margin Ratio

This ratio is computed to analyze profitability position of a firm. Higher ratio indicates high profitability and vice-versa, this ratio gives the percentage profit or loss with respect to its sales.

$$\text{Net profit margin ratio} = \frac{\text{Net profit after tax}}{\text{Sales}}$$

12. Return on Working Capital Ratio

This is yet another ratio to examine profitability of a firm. The ratio is aimed at analyzing the proprietor of current assets employed to earn the profit amount. Higher ratio is favorable and vice-versa.

$$\text{NPAT on working capital ratio} = \frac{\text{NPAT}}{\text{Working Capital}}$$

13. Net Profit after Tax to Quick Assets Ratio

This ratio also examines profitability of firm; analyses proportion of quick assets (i.e. current assets – inventory) in earning the profit amount.

$$\text{NPAT to quick assets} = \frac{\text{NPAT}}{\text{Quick Assets}}$$

II. Statistical Tool.

1. Straight Line Trend

(The least squire method .$Y_c = a + bx$)

This is one of the time series analyses, which gives the best estimate of one variable for any given value of other variables. Which is analyzed specially for the average mathematical relationship between two variables.

In this method, a trend line $Yc = a + bx$, is fitted to the given data such $\Sigma (Y - Yc) = 0$ and $\Sigma(Y - Yc)^2$ is least .

Where,

Yc = Value of computed from relationship for a given 'x'.

a = Numerical constants measures the distance of the fitted line directly above or below the origin or y-intercept.

b= Numerical constant which measures the change in y per unit Change in x.

x= Time in cash of time series analysis.

The values of 'a' and 'b' can be found out by solving the Following normal equations.

$\Sigma y = Na + b\Sigma x$
$\Sigma xy = a\,\Sigma x - b\Sigma x^2$

Where, N is the number of years of any period which data are given.

The normal equations are obtained by using above two conditions and some mathematical manipulations.

To simplify the calculation the mid-point in time is taken as origin.

So that:

$\Sigma x=0$,then the above two normal equation will be reduce to:

$\Sigma y=NA$

$\ldots a=\frac{\Sigma y}{N}$

$\Sigma xy=b\,\Sigma x^2$

$\ldots a=\frac{\Sigma xy}{\Sigma X^2}$

2. Karl Pearson's Coefficient of Correction (r) = $\frac{UV}{\sqrt{U^2\ V^2}}$

If two variables (say x and y) very such that change in one accompanies the change in other, then these two variables are said to be correlated. Such correlations are said to be positively correlated if increase in x results increase in y and decrease in x follows decrease in y. Likewise, such correlations are said to be negatively correlated if increase in x results decrease in y and decrease in x follows increase in y.

Correlation measures the degree of relationship or association between the variables. To put it differently. It helps in analyzing the co- variation of two or more variables. It is noted that a high degree of correlation between two variables doesn't always necessarily imply that changes in one variation cause changes in the other i.e. correlation doesn't necessarily imply causation while causation always implies correlation.

Karl Pearson's coefficient of correlation is one of the best and population methods. Karl Pearson's coefficient of correlation (r) measures the degree of association between the two variables suppose x and y, given by:

$$r = \frac{UV}{U^2 \; V^2}$$

Where,

r = Karl Pearson's coefficient of correlation between x and y.

U = x - $\vec{X}$, V= y - $\bar{y}$, and $\bar{X} = \frac{X}{N}$, $\bar{y} = \frac{y}{N}$

N = No. of years

However in this thesis work, while computing correlation coefficient, the above formula has been used only once manually. For rest of the computations will be done on computer directly.

The value of ‘r’ lies between +1.00 to -1.00 value of +1.00 refers to the highly positive correlation between the variables, i.e. one variable is directly proportional to another, or in other words, increase in one variable leads to increase in another and vice-versa.

Value of -1.00 refers to highly negative correlation between the variables, i.e. one variable is directly proportional to another, or in other words, increase is one variable leads to decrease in another variable and vice-versa.

Likewise, value nearing to zero ‘0’, refers to existence of no correlation between the variables, i.e. increase or decrease in one variable results no impact on another variable and vice-versa.

Together with Karl Pearson’s coefficient of correlation, probable error (P.E.) of the correlation coefficient is also computed. This probable error of the correlation coefficient is the basic for the interpretation of its value. It is given by:

$$\text{P.E.} = \frac{0.6745\sqrt{1 - r^2}}{\sqrt{N}}$$

Where,

P.E. = Probable error of correlation coefficient

N = Number of pair of observation

r = Correlation coefficient

when r < P.E., the value of r is not statistically significant at all; i.e. there is no evidence of correlation.

When r < 6(P.E.), the value of r is significant; i.e. practically the correlations certain.

But when P.E. < r < 6 (P.E.), the value of ‘r’ is inconclusive as to statistically significant/insignificant correlation.

The upper and lower limit within which the correlation coefficient is expected to lie are given by-

r+ P.E.(upper limited), and

r- P.E.(lower limited), respectively.

But, when ‘r’ is of negative value i.e., -1.00 ≤ r ≤ 0, in order to compare ‘r’ with P.E. which is always in positive value, ‘r modulus’ or $|r|$ is calculated. $|r|$ is nothing but it is the positive value of r itself.

For instance, if r is calculated as r = 0.5, then $|r|$ = 0.5

3. Standard Deviation (S.D.)

…S.D. (σ) = $\sqrt{\frac{1}{N} \quad x^2} = \sqrt{\frac{d^2}{N} Z \ \frac{d}{N}^2}$

Standard deviation measures the scatter, spread or variation, and provides idea of homogeneity (compactness) or heterogeneity 9(Scatter) of the distribution. Out of various methods of studying dispersion such as range, interquartile range and quartile deviation, mean deviation, standard deviation and variance, Lorenz curve, the most popular method is the standard deviation and variance method.

Standard deviation is represented by the symbol sigma (∃) and is

Given by:

S.D. (Q) = $\sqrt{\frac{1}{N} \quad x^2}$

Where, x= x - $\overline{X}$

N= No. of year

It can also be computed as follows.

$$\text{S.D.}(\sigma) = \sqrt{\frac{1}{N} \quad x^2} = \sqrt{\frac{d^2}{N} Z \quad \frac{d}{N}^2}$$

Where D= X-A

And A= Assumed mean

In this thesis work however, while computing standard deviation, the above formula has been employed only once manually. For rest of the computations will be done by taking of the help of computer directly.

In conjunction with standard deviation, coefficient of variation (C.V.)is also computed which is relative measures based on standard deviation and is defined as the ratio of the standard to the mean expressed in percent.

Coefficient of variation (C.V.) is given by:

$$\text{C.V.} = \frac{\pm}{\overline{X}} x100\%$$

The ratio $\frac{\pm}{\overline{X}}$ is called the coefficient of standard deviation C.V. has no units. Distribution with lower C.V. said to be less variable (or more consistent or more uniform) and the distribution with higher C.V. is indicative of more variable (or less consistent or less uniform)

4. Regression Analysis and its line

Regression is the statistical tool, which is used to determine the statistical relationship between two (or more) variables and to make estimation (or production) of one variable on the basis of the other variables. It helps to calculate the unknown value of one variable can be estimated on the basis of known value of other variables. The closer relationship between the two

variables, the more accurate the estimated value is the unknown variable to the estimated is called dependent variable and the known variable is called independent variable.

Note worthy here is that correlation analysis indicates to what degree the variables are related and regression analysis indicates how the variables are related:

i. Regression line of x variable on y variables (i.e.'x' on 'y')

$$(x - \bar{x}) = b_{xy}(y - \bar{y})$$

ii. Regression line of y variable on x variable (i.e. 'y' on 'x')

$$(y - \bar{y}) = b_{yx}(x - \bar{x})$$

Where $\bar{x}$ and $\bar{y}$ = Arithmetic means of x and y – series respectively

$$\ldots b_{yx} = \frac{N \sum xy - \sum x \sum y}{N \sum x^2 - (\sum x)^2}$$

$$\ldots b_{xy} = \frac{N \sum xy - \sum x \sum y}{N \sum y^2 - (\sum y)^2}$$

5. Lorenz curve

Lorenz curve is graphic method of studying dispersion in a distribution. Dr. Lorenz introduced for the first time this method of measuring dispersion. He used this method to measure inequalities in the distribution of income and wealth between different countries for different time periods. Lorenz curve is obtained by plotting the cumulative percents of variables values (e.g. wealth, profit, etc) on y-axis and the cumulative percent of the corresponding frequencies on x-axis. Thus the Lorenz curve is the cumulative percentage curve.

CHAPTER – IV

PRESENTATION ANALYSIS AND INTERPRATION OF DATA

4.1 Introduction

To meet the aforesaid objectives, which is stated in chapter I is to have true insight into “cash management” of Dairy Development Corporation. For accomplishment of these objectives, a finite course of research methodology has been followed, which is desired in chapter III. Now in this study the effort has made to access and analysis the cash management to disclose the actual position of cash management in DDC.

In this chapter, efforts have been made to process the obtained data and analysis and interpret them. The available data are tabulated in the appropriate categories on the basis of their homogeneous nature. These tabulated data are analyzed with the help of financial, statistically and cash management tools are finally interpreted to explore the facts.

4.2 Analysis of cash and Bank Balance

Holding the optimum cash balance is the rational cash management practice of a business firm. Total cash balances refers to the cash in hand, cash at bank and cash in transit, near cash assets such as marketable securities and the time deposits in bank. In this way management of cash plays a significant role in current assets of DDC. Following Table No. 2 shows the amount of cash and bank balance of DDC during the period under study. The cash balance of each fiscal year and has been compared to preceding year to analyze fluctuations.

Table No. 4
Analysis of Cash and bank
(Rs. In Million)

FY	Cash and bank balance	Increase/Decrease
2056/57	87.90	
2057/58	87.50	(0.455%)
2058/59	87.01	(0.56%)
2059/60	90.68	4.21%
2060/61	133.93	47.69%
2061/62	183.46	36.98%
2062/63	214.71	17.03%
2063/64	176.41	(17.83%)
2064/65	189.25	7.27%
2065/66	198.63	4.95%

In FY 2056/057, the cash balance of company was Rs.87.90 million, which decrease by 0.455 percent, to Rs.87.50 million in the following year. In this way, above table shows the cash balance of next year was going to be decreased by 0.56 percent in FY 2058/059. However, it sharply increased by 4.21 percent in FY 2059/060 as compared to preceding year, such increasing tends came up to FY 2062/063 by 47.69 percent (in FY 2060/061), by 36.981 (in FY 2061/062) and 17.03 percent (in FY 2062/063). Likewise, there was decreased in cash balance in FY 2063/064 and there after the cash balance in each year (i.e. FY 2064/065 and FY 2065/066) was in increasing trends.

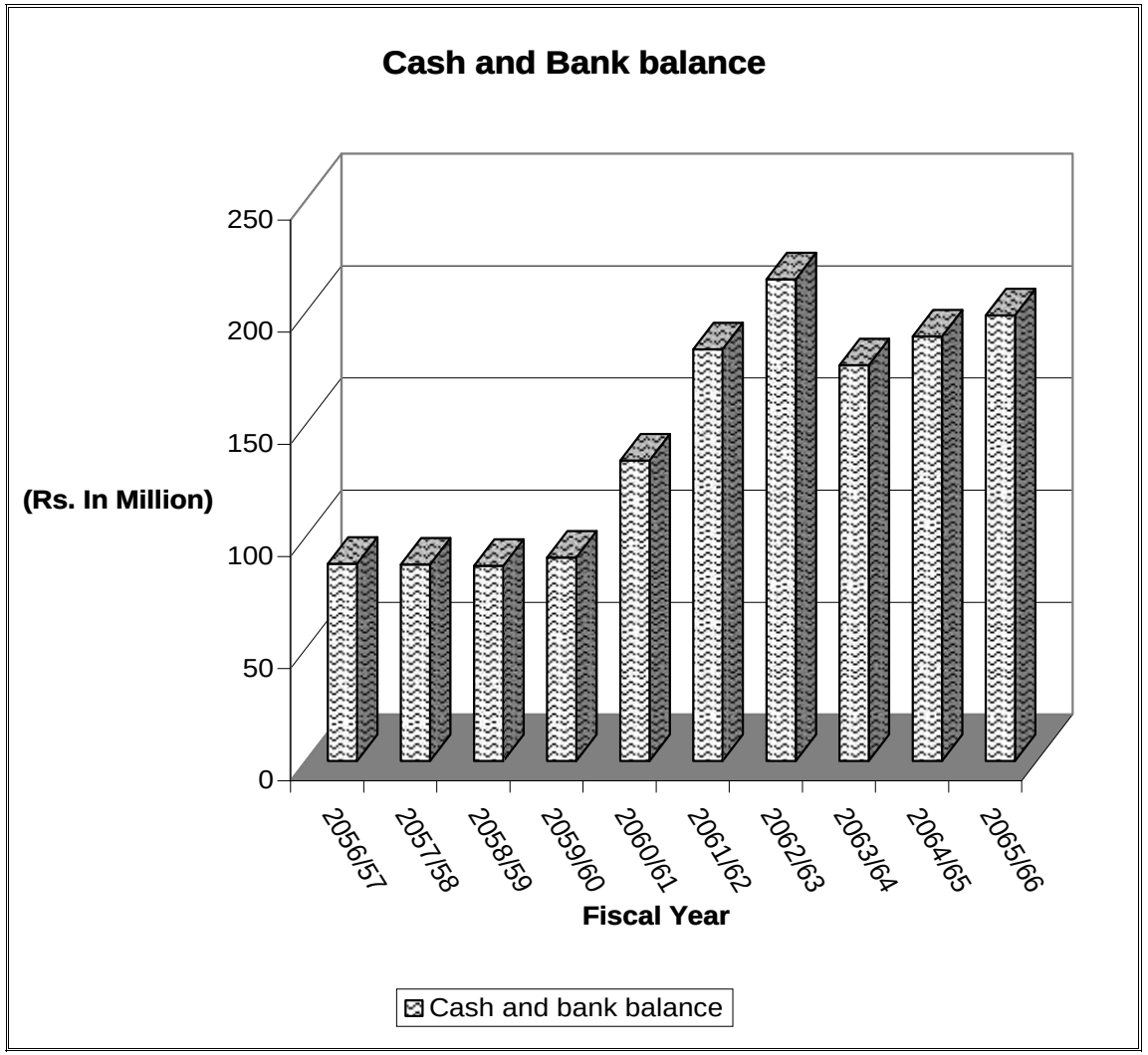
However, vast derivative in increase in increment of cash balance occurred in FY 2060/061, when the company held cash balance of Rs.133.93 million compared to Rs.90.68 million only in previous FY 2059/060. it indicated an increment by 47.69

percent an erratic fluctuation. Afterwards, the figure decline in the following one fiscal year 2063/064 by 17.83 percent respectively. The sharpest derivative in decrement being observed in the FY 2058/059.

The figure suggested that the cash held is very erratic in nature ranging from the lowest Rs.87.01 million in FY 2058/059 to the highest of Rs.214.71 million in FY 2062/063. such fluctuations state that decisions regarding holding cash balance at the year-end is rather a haphazard decision without any substantial logic and policy.

The figure thus observed shows that the company has not been following a definite policy regarding the amount of cash to hold in each fiscal year end.

Fig. No. 8


Cash and Bank balance
(Rs. In Million)
250
200
150
100
50
0
2056/57
2057/58
2058/59
2059/60
2060/61
2061/62
2062/63
2063/64
2064/65
2065/66
Fiscal Year
Cash and bank balance

4.2.1 analysis of Dispersion in Cash and Bank Balance

Following table shows the dispersion in the cash balance at the year- ends under study. Standard deviation is the measure of dispersion used for analysis.

Table No. 5
Analysis of Dispersion in Cash and Bank Balance
(*Rs.InMillion)*

Fiscal Year	Cash and bank balance (X)	x=X- $\bar{X}$	x^2 X∫X Z$\bar{X}$Å
2056/57	87.90	-57.04	3254.47
2057/58	87.50	-57.44	3299.35
2058/59	87.01	-57.93	3355.88
2059/60	90.68	-54.26	2944.14
2060/61	133.93	-11.01	121.22
2061/62	183.46	38.51	1483.02
2062/63	214.71	69.76	4866.45
2063/64	176.41	31.46	989.73
2064/65	189.25	44.30	1962.49
2065/66	198.63	53.68	2881.54
N = 10	**∑**X = 1449.48		**∑x²**=25158.29

$$\text{Mean}(\bar{X}) = \frac{X}{N} = \frac{144948}{10} = 144.948$$

$$\text{Standard deviation } (\pm) = \sqrt{\frac{1}{N} X^2}$$

$$= \sqrt{\frac{1}{10} | 25158.29} = \sqrt{2515.29}$$

= Rs.50.15 million

Dispersion in case balance shows that DDC has been haphazardly holding cash balance without having speculation. The cash balance held are sometimes so high and sometimes so low computed standard deviation has been found Rs.50.15 million which indicates there is no normal degree of uniformity in holding cash balance cash balance in the fiscal years ends.

Calculation of coefficient of variation (CV) further shows that whether the uniformity or homogeneity of cash balance held is poor, good or excellent.

$$\text{coefficient of variation (C.V.)} = \frac{\sigma}{\bar{X}} \times 100 = \frac{50.15}{144.948} \times 100$$

$$= 34.59\%$$

Lower C.V. indicates higher consistency or higher homogeneity or highly stable cash balances where as higher C.V. indicates just opposite situation. In this way C.V. of 34.59 percent definitely signifies that the homogeneity in holding cash balance is poor.

4.2.2 Lorenz Curve Analysis of Cash and Bank Balance

Lorenz curve helps to find out the dispersion from normal distribution by graphic method.

Table No. 6

Lorenz Curve Analysis: Calculation of Cumulative Percentage

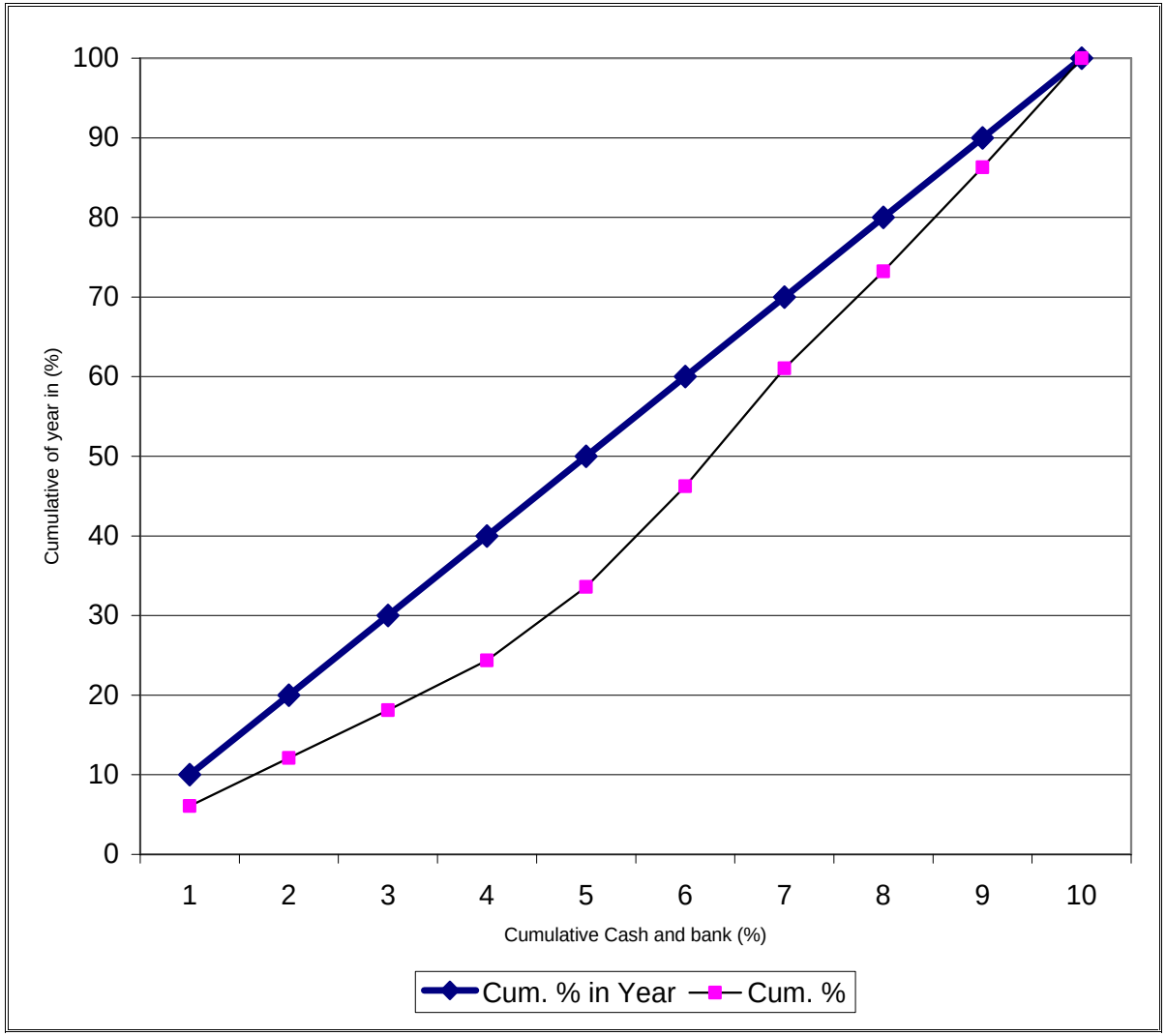
(Rs. In million)

Fiscal Year	Cum. Year	Cum. % in Year	Cash and bank balance	Cum cash & bank balance	Cum. %
2056/57	1	10	87.90	87.90	6.06
2057/58	2	20	87.50	175.40	12.10

2058/59	3	30	87.01	262.41	18.10
2059/60	4	40	90.68	353.09	24.35
2060/61	5	50	133.93	487.02	33.59
2061/62	6	60	183.46	670.48	46.25
2062/63	7	70	214.71	885.19	61.06
2063/64	8	80	176.41	1061.60	73.24
2064/65	9	90	189.25	1250.85	86.29
2065/66	10	100	198.63	1449.48	100.00

Lorenz's curve is a visual aid system of linding dispersion. The variability of cash and bank balance can easily be compared by this method. On the basis of above table. Lorenz curve has been drawn as follows.

Fig. No. 9
Lorenz Curve Analysis



The measure of variability of distribution of cash and bank balance is provided by the distance of the curve of cumulated percentages from the line of equal distribution; points of the curve (i.e. cash variability curve) lying approximately

nearer to the line of equal distribution indicating minutely variability is distributed of cash i.e. there is a small (minute) percentage of dispersion in cash balance and vice-versa.

4.2.3 Fitting the Straight Line Trend by Least Square Method for Variation in Cash Balance

This is one of the time series analyses, where future events of a variable (s) are forecasted over a regular interval of time based on the past events of a variable (s). Here, an effort has been made to forecast the cash balances of DDC in future fiscal years, based on it's past trends.

Table No. 7
Fitting the straight Line Trend by Least Square method of Variations in Cash Balance
(Rs. In million)

Fiscal Year	Cash and bank balance(y)	Deviation from 2060/061 (x)	Xy	X^2
2056/57	87.90	-4	-351.60	16
2057/58	87.50	-3	-262.50	9
2058/59	87.01	-2	-174.02	4
2059/60	90.68	-1	-90.68	1
2060/61	133.93	0	0	0
2061/62	183.46	1	183.46	1
2062/63	214.71	2	429.42	4
2063/64	176.41	3	529.42	9
2064/65	189.25	4	757.00	19
2065/66	198.63	5	993.15	25
n= 10	**∑y =** 1449.48	**∑x = 5**	∑xy = 2013.46	$\sum x^2$= 85

The equation of straight line trend is given by

…y_c = a + bx

To find the value of 'a' and 'b', we should the following equations as well.

Where, **∑y =** na + b∑x ---------- (i)

$\therefore \sum xy = a\sum x + b\sum x^2$ ----------(ii)

After putting the values and then solving above the two equations, the value of 'a' and 'b' will be as follows:

$\therefore$ a = 137.13 and b = 15.62

Hence, the equation of the straight line trend is given by:

$y_c = a + bx$

$\therefore y = 137.13 + 15.62x$

The trend line shows positive figure of cash balance in future. The annual rate of increment in cash balance has been calculated Rs.15.62× 1000000(million) = Rs.15,620,000, i.e. Rs.15.62 million.

In this case when x = 6(i.e. FY 2066/67)

$y_c = 137.13 + 15.62 \times \mathbf{6}$ = Rs.230.85

Likewise,

When, x – 7 (i.e. FY 2067/68)

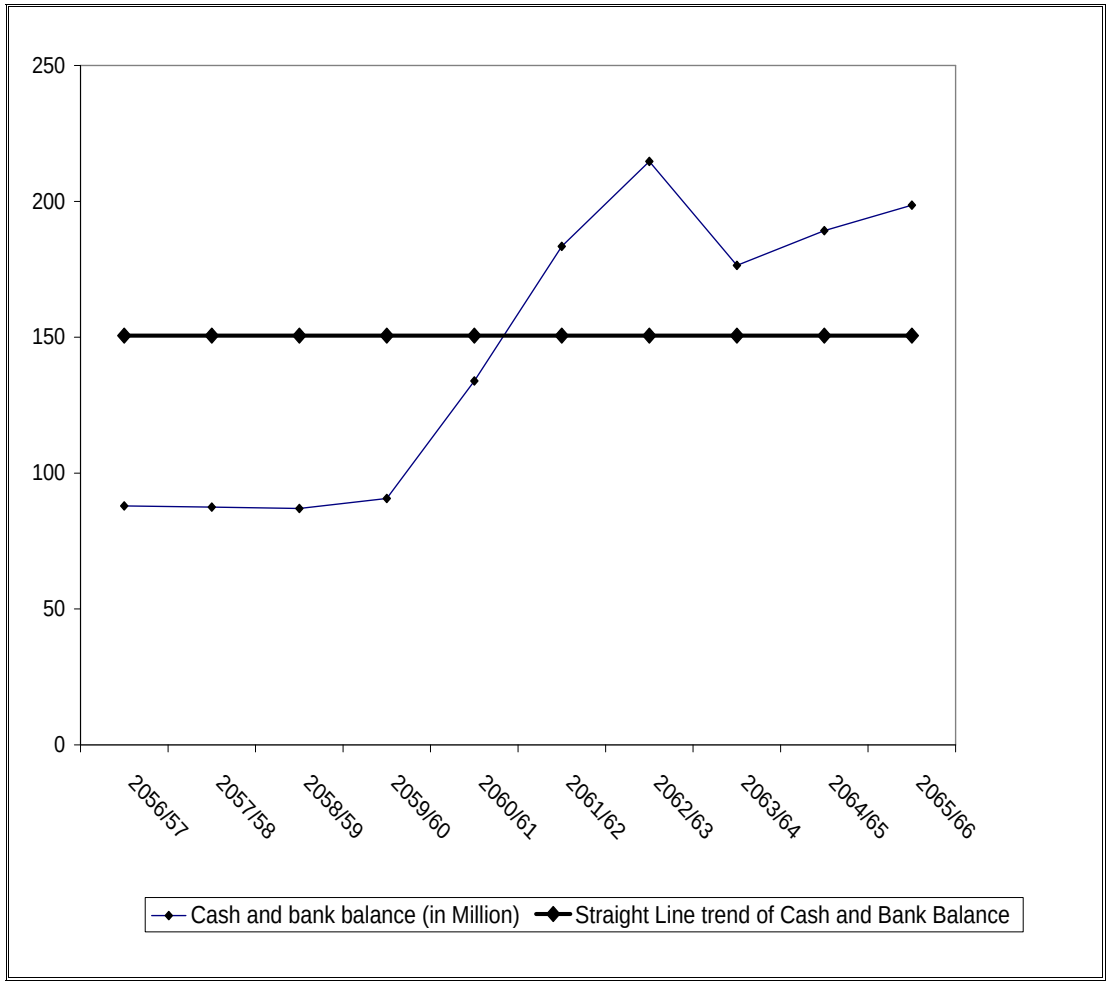
$y_c = 137.13 + 15.62 \times \mathbf{7}$ = Rs.246.47

Hence, expected cash balance in FY 2066/067 is Rs.230.85 million and in FY 2067/68 will be Rs.246.47 million. In FY 2066/67, cash balance will have been increased by Rs.15,620,000 (i.e. 15.62 million) compared to the preceding year. Thus the trends shows that the cash balance is expected to increase by Rs.15.62 million every year.

In like manner, for other FY's expected cash balance can be calculated either by using the above formula or by adding Rs.15.62 million from the preceding year's cash balance.

Fig. No. 10

Straight Line trend for Variation in Cash Balance



Above Figure No. (3): Straight Line Trend for variation in Cash balance By extending the trend line in graph with scale. Cash and bank balance could be plotted for subsequent FYs or conversely, by using the straight line trend equation, values of cash and bank balance could be plotted for respective FYs and the straight line could be drawn.

4.3 Analysis of Cash Turnover Ratio or Scales to Cash and Bank Balance

The cash balance of the company should be optimum to meet it's current obligations in course of daily business transaction cash turnover ratio represents how quickly the cash is received from its sales revenue. In other words it measures the speed with which cash move through an enterprises operation. Higher turnover is the signal of good liquidity and vice-versa. However, too high ratio indicates excess cash balance being held idle.

The following tables shows the cash turnover during the study period of DDC.

Table No. 8
Analysis of Cash Turnover ratio
(Rs. In million)

Fiscal Year	Sales	Cash & bank balance	Ratio(times)	Cash conversion day = 365/ratio
2056/57	819.15	87.90	9.3191	39
2057/58	880.40	87.50	10.0617	36
2058/59	1053.76	87.01	12.1107	30
2059/60	1274.76	90.68	14.0505	26
2060/61	1278.19	133.93	9.5437	38
2061/62	1387.36	183.46	7.5621	48
2062/63	1348.39	214.71	6.2800	58
2063/64	1484.77	176.41	8.4165	43
2064/65	1548.23	189.25	8.1808	45
2065/66	1595.90	198.63	8.0345	45
Total	12670.25	1449.48		
Average	1267.025	144.948	8.7412	42 (Approx)

Source: Profit and loss a/c and balance sheet of DDC for relevant year.

Erratic fluctuations have been observed in cash turnover analysis. The ratio is fluctuating not too high and not too low, indicative of some definite policy of holding cash balance in relation to sales volume is in DDC. Above table shows that the

highest ratio of 14.0505 times has been observed in FY 2059/060. Likewise, the lowest ratio of 6.28 has been observed in 2062/063. The overall average ratio has been calculated 8.7412 times.

Except in FY (2062/063, 2063/064, 2064/065 and 2065/066), the cash turnover shows the lower then the average. This shows that the cash turnover is not so strength in DDC. The lowest cash conversion days is 26 days in FY 2059/060. it indicates that the company unable to collect cash from its credit sale timely.

In the like manner, the average cash turnover cycle has been found 42 days. However, due to unavailability of information regarding credit policy of the company, the credit days allowed to its debtors was not shown. So, no precise analysis could be carried out each turnover cycle.

The cash amount held in each fiscal year end showed no more but a little bit relation to the sales volume. Generally, high sale imply high cash balance to hold and vice-versa. But above figure do not flow this rule.

From the above calculation it is observed that the cash collection in DDC is not so efficient.

4.3.1 Analysis of Correlation between Sales and Cash and Bank Balance

A noteworthy fact here is that the cash balance held at the FY ends can fluctuate in relation to fluctuations in other variables. For instance, if sales grow higher, as a general rule the cash balance held trend to be higher too, and vice-versa. Generally, cash balance held and sales volume are positively correlated. The following statistical analysis i.e. calculation of Karl Pearson's coefficient of correlation will show if the company has been following this rule.

Table No. 9
Analysis of Karl Pearson's Coefficient of Correlation (r)

(Rs. In million)

FY	Sales(x)	Cash balance (y)	U = (x-x)	V=	U^2	V^2	UV
2056/57	819.15	87.90	-447.87	-57.05	200587.54	3254.47	25550.08
2057/58	880.40	87.50	-836.62	-57.44	149475.02	3299.35	22207.45
2058/59	1053.76	87.01	-213.26	-57.93	45479.82	3355.88	12354.15
2059/60	1274.10	90.68	7.075	-54.26	50.05	2944.14	-383.88
2060/61	1278.19	133.93	11.16	-11.01	124.54	121.22	-122.87
2061/62	1387.36	183.46	120.33	38.51	14479.30	1483.02	4633.90
2062/63	1348.39	214.71	81.36	69.76	6619.44	4866.45	5675.67
2063/64	1484.77	176.41	217.74	31.46	47410.70	989.73	6850.10
2064/65	1548.23	189.25	281.20	44.30	79073.44	1962.49	12457.16
2065/66	1595.90	198.63	328.97	53.68	108155.47	2881.54	17653.74
n= 10	**∑x**= 12670.25	**∑**y = 1449.48	**∑**U =0	**∑V=0**	**∑**U^2 = 651455.32	**∑**V^2 = 25158.29	**∑**UV = 106875.50

Where,

$$\text{Mean}(\bar{X}) = \frac{X}{n} = \frac{12670.25}{10} = 1267.025$$

$$\text{Mean}(\bar{y}) = \frac{y}{n} = \frac{1449.48}{10} = 144.948$$

…Karl Pearson's coefficient of correlation (r) = $\frac{UV}{\sqrt{U^2 \; V^2}}$

$$= \frac{106875.50}{\sqrt{651455.32 \mid 25158.29}}$$

… (r) = -0.8348

This shows that three exists positive correlation between sales volume and cash balance. It means the rest of significance of the value of 'r' shows that there is a significance relationship between cash and bank balance.

For this purpose, probable error has been calculated as follows.

$$\text{Probable Error (P.E.)} = \frac{0.6745\left(1-r^2\right)}{\sqrt{n}} = \frac{0.6745\left(1-0.8348^2\right)}{\sqrt{10}}$$

$$\ldots \text{P.E.} = 0.064$$

$$\ldots 6(\text{P.E.}) = 6 \times 0.064 = 0.348$$

Now, If r > 6 (P.E.), it is indicative of statistically significant positive correlation.
Likewise,

If r < P.E. It is indicative of statistically significant positive correlation.

But in this case,

P.E. < r > 6 (P.E.).

This implies. Though there exists significant positive correlation between the two variables, it is at all significant i.e. there is much more evidence of correlation.

The upper and lower limits within which the correlation coefficient is expected to lie are given by:

r + P.E. = 0.8348 + 0.064 = 0.8988(upper limit)

r - P.E. = 0.8348 – 0.064 = 0.7708(lower limit)

So, the coefficient of correlation is expected to lie between 0.7708 and 0.8988.

4.3.2 Regression Analysis: Computation of Regression Equations Regression Coefficients and Regression Lines

In regression analysis, the nature of relationship between the two variables is established and the unknown variable is estimated on the basis of other known variables. In this case, cash balance has been estimated by means of value of actual sales.

The regression line of sales (x) on cash balance is given by:

$$x - \bar{X} = r.\frac{\pm_X}{\pm_Y}(y - \bar{Y})$$

Where,

$\bar{X}$ = Mean sales = 1267.025

$\bar{Y}$ = Mean of cash and bank balance = 144.948

$\pm_X$ = Standard deviation of sales = Rs. 255.23 million (Which is calculated by using of the following formula)

$$\therefore \pm_X = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

$\exists_y$=standard deviation of cash and bank balance =Rs. 50.15 million
(which is calculated by using the following formula)

$$\therefore \exists_y = \sqrt{\frac{\sum (y - \bar{y})^2}{n}}$$

r= Karl Pearson's coefficient of correlation = 0.8348

$$\therefore x - \bar{X} = r.\frac{\pm_X}{\pm_Y}(y - \bar{Y})$$

Or, $(x - 1267.025) = 0.8348 \times \frac{255.23}{50.15}(y\text{-}144.948)$

Or, $(x - 1267.025) = 4.2485\ (y - 144.948)$

$$\ldots X = 651.215 + 4.2485y$$

This equation shows that sales is estimated to increase by 4.2485 if per unit increase in cash balance.

Likewise, regression line of cash balance (y) on sales (x) can be computed as follows.

$$f_y\ Z\bar{y}' = r.\frac{\pm_y}{\pm_x} f_x\ Z\bar{x}'$$

After putting of each values, only result or value of y will be shown here(by using above same process),

$$\ldots y = -62.077 + 0.1640x$$

This shows that cash balance is estimated to increase by 0.1640/unit, if per unit increase in sales volume.

Assuming that sales volume is function of cash balance. Now, when cash balance is expected to be Rs.215.50 million in FY 2066/067, the expected sales is given by:

X(sales) = 651.215 + 4.2485y

= 651.215 + 4.2485 × 215.50

… Sales (x) = Rs.1566.76 million

Hence, the estimated sales in FY 2066/067 is Rs.1566.76 million, when cash balance is estimated to be Rs.215.50 million.

In the like manner, assuming sales as a function of cash balance, sales volume can be estimated for other fiscal years also.

And similarly assuming cash balance as a function sales volume, then cash balance can be computed with same process as before by using following formula.

…y (cash) = -62.077 + 0.1640x.

4.4 Analysis of Liquidity Position

The liquidity of a firm indicates its position to meet its current/short-term obligations when it becomes due for payment. Thus, in cash management, the study of liquidity position of an enterprises constitutes an important role. If a firm is adequately liquid or solvent the short-term creditors are interested in such firms and therefore such firms get their short-term requirement readily. However, too much liquidity or in other words, holding more then enough cash balances to meet its current payments is also an indication of mismanagement of cash, because such cash balances remained after meeting its payment would remain idle. So an optimum liquidity is the necessity of the firm(Khan and Jain,1986).

4.4.1 Analysis of Current Ratio

It is ratio of current assets to current disabilities. It is one of the reliable methods to examine liquidity position of enterprises. It is also called working capital. Generally, current assets should be twice to the current liabilities. If the ratio is higher then 2, it is very comfortable for the creditors but it is the indicator of idle funds and the ratio is less then 2, difficult may be experienced in the payment of current liabilities and day to day operations of the business may suffer. As stated by “Khan and Jain”, taking into consideration the nature of a company, satisfactory current ratio for a public enterprises is generally very low, as normally these companies have very little need for current assets. So, satisfactory ratio for DDC, a

public enterprise is therefore between 2:1 and higher than 1.5:1. But in general, ratio less then 1:1 is certainly undesirable for any enterprises. The current ratio of DDC is shown below.

Table No. 10
Analysis of Current Ratio
(*Rs. In million)*

Fiscal Year	Current assets	Current liabilities	Ratio (times)
2056/57	208.34	151.19	1.38:1
2057/58	202.96	92.54	2.19:1
2058/59	245.57	128.12	1.92:1
2059/60	268.66	155.59	1.73:1
2060/61	360.91	200.78	1.80:1
2061/62	412.29	231.01	1.78:1
2062/63	451.55	268.91	1.68:1
2063/64	501.42	406.14	1.23:1
2064/65	444.64	398.44	1.11:1
2065/66	450.76	387.77	1.16:1
Total	3547.10	2420.49	
Average	354.71	242.049	1.46:1

The figures indicates that there might have prevailed a little bit slack management practices in the FY 2057/058 signaling some excess inventories for current requirement and poor credit management in terms of over extended account receivables. The figure stated that current ratios in FY 2057/058 is 2.19:1 which is moderately higher then the satisfactory level, however satisfactory compared to the conventional ideal ratio of 2:1.

Overall, the average ratio signals a little bit unsatisfactory position of the DDC, which ratio is lower then the standard ratio 2:1. which should be a little bit above the average ratio to reach nearer to 2:1 (standard ratio). The figure shows that current ratio varies from 2.19:1 in FY 2057/058 to 1.11:1 in FY 2064/065 indicating high functions. The most favorable

current ratio is observing in FY 2058/059 when the ratio is 1.92:1. in this way the liquidity position of the DDC is in a favorable position.

Normally, current assets should be positive correlation with current liabilities. If the company has been able to maintain good liquidity position. The correlation between these two variables. Current assets and current liabilities should be significantly positive.

Karl Pearson's coefficient of correlation (r) between current assets and current liabilities has been computed on Microsoft excel worksheet is given here.

Correlation Coefficient (r) = 0.909

This shows that current assets and current liabilities are positively correlated. This implies that the company's current assets are increasing with increase in its current liabilities and vice-versa. To examine it's significance, we may use probable Error (P.E.), which has been calculated as follows:

$$\text{P.E. (Probable Error)} = \frac{0.6745(1-r^2)}{\sqrt{10}} = \frac{0.6745(1-0.909^2)}{\sqrt{10}}$$

$$= 0.037$$

Where, 6(P.E.) $= 6 \times \mathbf{0.037} = 0.222$

Now, if r > 6(P.E), it is indicative of statistical significant positive correlation.

Likewise, if r < P.E., it is indicative of statistically insignificant positive correlation.

But in this case P.E. < r> 6(P.E.) i.e. 0.037 < 0.909 > 0.222. this implies through there exists significant positive correlation between the two variables.

Therefore, this correlation analysis indicated that the company has been significantly maintaining its current assets accordingly with its current liabilities. In other words, current assets are being significantly increased with increase in current liabilities and vice-versa.

The lower and upper limits within which the correlation coefficient is expected to lie is given by:

r - P.E. = 0.909 – 0.037 = 0.872 (lower limit)

r + P.E. = 0.9090+0.037 = 0.946 (upper limit)

So, the correlation coefficient is expected to lie between 0.872 to 0.946.

4.4.2 Analysis of Acid Test or Quick Ratio

This excludes the inventory, the least liquid assets from the current assets and compares it with current liabilities. Inventory when excluded from current assets is called quick assets. Inventory is not capable of readily converting into cash and therefore it is the less liquid compared to other composition of current assets. Inventory is less liquid because it requires certain times to get converted into cash. But other constituent of current assets can be readily converted into cash.

The quick ratio measures the capacity of firm to cover it's current assets quickly into cash in order to meet its current liabilities.

Table No. 11

Analysis of Quickly Ratio/ Acid Test Ratio

(***Rs. in million***)

Fiscal Year	Quick assets	Current liabilities	Ratio (times)
2056/57	109.98	151.19	0.72:1
2057/58	132.17	92.54	1.42:1

2058/59	117.41	128.12	0.90:1
2059/60	128.25	155.59	0.82:1
2060/61	170.72	200.79	0.85:1
2061/62	225.71	231.01	0.97:1
2062/63	263.04	268.91	0.97:1
2063/64	282.37	406.14	0.69:1
2064/65	278.93	398.44	0.70:1
2065/66	294.55	387.77	0.75:1
Total	2003.13	2420.49	
Average	200.313	242.049	0.82:1

(Therefore, Quick Assets = Current Assets – Inventory)

The standard quick ratio to be maintained by an enterprises is 1:1. By observing above figures, there is kept more idle liquid assets in FY 2057/058, by 1.42:1. In this way in FY 2057/058 there was no proper management of liquid assets, which was to be minimized to 1:1 (proper quick ratio). In another sides, the ratios obtained are satisfactory for the fiscal year 2058/059, 2061/062 and 2062/063. Since during these fiscal year the ratios tend to be around the standard ratios of 1:1. However, other ratios for rest of the fiscal years have been below the standard ratio and as such liquidity positions for corresponding years are unsatisfactory.

A large part of the current assets have been tied up in slow moving and unsaleable inventories and slow paying debts. Thus the analysis of liquidity position by these both methods have given a precise in sight into the liquidity position of DDC.

Overall the liquidity position is a little bit satisfactory, because the average ratio is 0.82:1 which is some for around the standard ratio1:1, thus it is not quite favorable but some extent favorable for DDC.

Besides analyze of quick ratios, correlation between quick assets and current liabilities should also be analyzed. Normally, relation between these two variables should be significantly positively correlated.

Karl Pearson's coefficient of correlation between quick assets and current liabilities.

Correlation coefficient (r) = 0.939 (as calculated on Microsoft excel worksheet)

This shows that there exists positive correlation between the two.

Computation of probable error,

$$\text{P.E.(Probable Error)} = \frac{0.6745(1-r^2)}{\sqrt{n}} = \frac{0.6745(1-0.939^2)}{\sqrt{10}}$$

$$= 0.025$$

Where, 6(P.E.) $= 6 \times 0.025 = 0.1513$

Now, if r > 6 (P.E.),it is indicating of statistically significant positive correlation.

Similarly, if r < P.E., it is indicating of satisfactory insignificant positive correlation.

But here, P.E. < r > 6 (P.E.), i.e. 0.025 < 0.939 > 0.1513. This implies though there exist significant positive correlation between the two variables.

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

The upper and lower limits within which the correlation coefficient is expected to lie is given by:

r + P.E. = 0.939 + 0.025 = 0.964 (upper limit)

r - P.E. = 0.939 – 0.025 = 0.914 (lower limit)

Hence, the correlation coefficient is expected to lie between 0.964 to 0.914.

4.5 Analysis of Profitability Position

Perhaps, most of the company wants to maximize sales and maximize profit consequently. Whatever may be the liquidity position, the main touchstone is that the company should be operating under profit it is found that in certain cases, though liquidity position of a firm is not sound enough, the firm is running well under profit. For these companies, by maintaining sound liquidity position, profit can further the maximized. Where as, in spite of sound liquidity position if the company is running under loss, then such soundness liquidity is virtually of no use. But, worth mentioning here is that, low profitability does not always suggest a bad financial position. Conversely, such low profitability may be resulting high sales and thus could be assisting in sales maximizing policy. Another point to be noted here is the relation between profitability and liquidity. The relation between the two is conflicting such that if a firm tends to increase it's profitability by investing and reinvesting its cash and near cash assets. The firm could run out of cash and unable to meet its current obligations, there by its liquidity being adversely affected. On other hand, if the firm tries to be more liquid thereby making prompt payment for its current obligations, then it could run the risk of depriving of high profitability. However, in practice, a firm should be simultaneously maintaining sound liquidity as well as profitability. So, this implies there should prevail positive correlation between liquidity and profitability.

Hence, the following analyses have been presented here.

4.5.1 Analysis of Net Profit Margin Ratio

It measures the relationship between net profits and sales of a firm. A high profit margin indicates adequate returns to the firm and thus enables in withstanding in adverse economic situations when sales price is declining, cost of production is rising and demands for the product is falling, a low profit margin shows just the opposite. This computed by dividing net profit after taxes by sales.

Table No. 12

Analysis of Net Profit Margin Ratio

(Rs .in million)

Fiscal Year	Net profit after tax/ loss	Sales	Ratio (%)
2056/57	38.69	819.15	4.72
2057/58	10.66	880.40	1.21
2058/59	(5.91)	1053.76	0.56
2059/60	(31.80)	1274.10	2.50
2060/61	(0.15)	1278.19	0.011
2061/62	(14.00)	1387.36	1.009
2062/63	(21.62)	1348.39	1.60
2063/64	(107.56)	1484.77	7.24
2064/65	(76.13)	1548.23	4.91
2065/66	(8.62)	1595.90	0.54
Total	(216.44)	12670.25	
Average	(21.644)	1267.025	1.70 (%)

The analysis showed that DDC has been operating under loss since FY 2058/059. Noticeably in FY2063/064, the net profit margin ratio is -7.13%. the net profit margin ratio observed in FY 2056/057 and 2057/058 are very insignificant with a ratio of 4.72% and 1.21% respectively.

Overall , the company has been operating under loss and the average net profitability margin has been calculated -1.70%.

4.5.2 Analysis of Return on Working Capital (i.e. Current Assets)

(Gross concept of w/c = The composition of total current assets)

It is computed by dividing net profit after tax (loss) by current assets. Higher ratio indicates higher utilization of current assets to earn profit and vice-versa.

Table No. 13

Analysis of return on Working Capital

(Rs. In million)

Fiscal Year	Net profit tax (loss)	Current assets	Ratio (%)
2056/57	38.69	208.34	18.57
2057/58	10.66	202.96	5.25
2058/59	(5.91)	245.57	(2.40)
2059/60	(31.80)	268.66	(11.83)
2060/61	(0.15)	360.91	(0.04)
2061/62	(14.10)	412.29	(3.39)
2062/63	(21.62)	451.55	(4.78)
2063/64	(107.56)	501.42	(21.45)
2064/65	(76.03)	444.64	(17.12)
2065/66	(8.62)	450.77	(1.91)
Total	(216.44)	3547.10	
Average	(21.644)	354.71	(6.10) %

The analysis showed that DDC has not been utilizing its current assets effectively in earning profit. Noticeably, in the FY 2063/064 which calls for serious attention. Besides, the overall ratio are also dissatisfying, indicating loss in each fiscal

years except FY 2056/057 and 2057/058, during this first two fiscal years (i.e. 2056/057 and 2057/058) has insignificant positive return on working capital with ratio 18.57% and 5.52% respectively.

Overall, the return on working capital disappointing indicating drastic down fall of the company. The average return in working capital has been calculating (6.10%).

4.5.3 Analysis of Net Profit after Tax (Net Loss) to quick assets

It is also computed by dividing net profit after tax (net loss) by quick assets. Higher ratio indicates higher utilization of quick assets in earning profits and vice-versa.

Table No. 14
Analysis of Net Profit after Tax (Net Loss) to Quick Assets
(*Rs. in million*)

Fiscal Year	Net profit tax (loss)	Quick assets	Ratio (%)
2056/57	38.69	109.98	35.17
2057/58	10.66	132.17	8.06
2058/59	(5.91)	117.41	(5.03)
2059/60	(31.80)	128.25	(24.79)
2060/61	(0.15)	170.72	(0.087)
2061/62	(14.10)	225.71	(6.20)
2062/63	(21.62)	263.04	(8.21)
2063/64	(107.56)	282.37	(38.09)
2064/65	(76.03)	278.93	(27.29)
2065/66	(8.62)	294.55	(2.92)
Total	(216.44)	2003.13	

Average	(21.644)	200.313	(10.80)%

By observing the above analysis of working capital ratio, it found that the ratio has also been found disastrous. The figure clearly indicates that utilized quick assets have not been earning profit in each of the fiscal year. A few significant positive ratio has been observed in FYs 2056/057 and 2057/058 with 35.17% and 8.06%. Except in this FYs, in all other FYs the (0.087%) to the highest of (38.09), which definitely signifies dismal situation of DDC.

4.6 Analysis of Liquidity in Relation to Profitability

In a firm/company profitability and liquidity are contradictory and conflicting nature, and such the firm should seek for trade off between the two conflicting nature between these two could be justified by following example, if a firm holds large current assets. So. as to become more liquid, the consequence is that the profitability is adversely affected since the firm could have invested a large portion of such current assets in earning profit. Conversely, if a firm doesn't keep enough current assets and invests its large portion in earning profit, the consequence is that the firm fails meet to its currents liabilities i.e. become illiquid and invite the risk of bankruptcy. The conflicting natures of these two is such that when liquidity is being maintained, profitability tends to fall down and vice-versa. This very contradictory nature, a firm should however maintain satisfactory liquidity as well as profitability in other words, liquidity and profitability should be significantly positively correlated.

4.6.1 Analysis of Correlation between Net Profit after Tax (Net Loss) to Quick Assets Ratio and Quick Assets to Current Liabilities Ratio

Hence, Karl Pearson's coefficient of correlation between following two ratios has been analyzed here, which ratio is given in the following tables. In this analysis, net profit after tax to quick assets ratio has represented profitability ratio, and quick assets to current liabilities has represented liquidity ratio.

Table No. 15

Analysis of Karl Pearson's Correlation Coefficient (r) between Profitability Ratio and Liquidity Ratio

(Rs. in million)

Fiscal Year	Net profit after tax to quick assets ratio (profitability	Quick assets to current liabilities ratio (liquidity

	ratio) (%)	ratio) (%)
2056/57	35.17	72
2057/58	8.06	142
2058/59	(5.03)	90
2059/60	(24.79)	82
2060/61	(0.087)	85
2061/62	(6.20)	97
2062/63	(8.21)	97
2063/64	(38.09)	69
2064/65	(27.29)	70
2065/66	(2.92)	75

Karl Pearson's coefficient of correlation (r) = -0.282 (as calculated on Microsoft excel worksheet)

This indicates that there exist negative correlation between liquidity and profitability. To put it differently, increase in profitability indicates decrease in liquidity and vice-versa. In fact that, since DDC has been operating under loss.

The significance of this negative correlation has been stated that:

$$\text{Probable error (P.E.)} = \frac{0.6745\sqrt{1-r^2}}{\sqrt{n}} = \frac{0.6745\sqrt{1-0.282^2}}{\sqrt{10}}$$

$$= 0.1963$$

$$6(\text{P.E.}) = 6 \times 0.1963 = 1.178$$

Now, if r > 6(P.E.), it is indicative of significantly significant correlation.
Similarly, if r < P.E., it is indicative of statistically insignificant positive correlation.

However, here P.E. > r < 6(P.E.) i.e.

0.1963 > - 0.281 < 1.178

This implies, though there exist significant negative correlation between the two. Hence, this proves that practically liquidity has been decreasing with increase in profitability.

Upper and lower limit within which the correlation coefficient is expected to lie is given by

r + P.E. = - 0.282 +0.1963 = -0.085(upper limit)

r - P.E. = -0.282 – 0.1963 = -0.478 (lower limit)

Hence, the correlation coefficient is expected to lie between - 0.085 and -0.478.

Hence, by analyzing above data, the analysis proved that the correlation between two (i.e. profitability and liquidity) is not satisfactory trend because of negative correlation.

4.6.2 Analysis of Correlation between Return on working capital Ratio and Current Ratio

Now, yet another attempt has been made to analyze correlation between liquidity and profitability. In the following analysis, return on working capital ratio has presented profitability ratio and similarly current ratio (i.e. current assets to current liabilities) has presented liquidity ratios. The correlation between these two ratios (i.e. both variables) has been shown in the following table.

Table No. 16

Analysis of Karl Pearson's Correlation Coefficient between Profitability Ratio and Liability Ratio

(***Rs. In million)***

Fiscal Year	Return on working capital ratio (Profitability ratio)	Current ratio = (C.A./C.L.) (liquidity ratio)
2056/57	18.57	138%

2057/58	5.25	219%
2058/59	(2.40)	192%
2059/60	(11.83)	173%
2060/61	(0.04)	180%
2061/62	(3.39)	178%
2062/63	(4.78)	168%
2063/64	(21.45)	123%
2064/65	(17.12)	111%
2065/66	(1.91)	116%

Karl Pearson's coefficient of correlation (r) = 0.349 (as calculated on excel worksheet).

This indicates that there exist positive correlation between liquidity and profitability. In other words, with increase in profitability and liquidity increase and vice-versa. However, in this case of DDC, since it has been operating under loss. It could be started that with increase in loss, the liquidity increase and vice-versa.

The significance of this positive correlation has been tested as follows.

$$\text{Probable Error (P.E.)} = \frac{0.6745\sqrt{1-r^2}}{\sqrt{n}} = \frac{0.6745\sqrt{1-0.349^2}}{\sqrt{10}}$$

$$= 0.1873$$

$$6(\text{P.E}) = 6 \times 0.1873 \qquad = 1.123$$

But, here P.E. < r < 6(P.E.) i.e. 0.1873 < 0.349 < 1.123. this implies through there exist positive correlation between the two, such positive correlation between the two, such positive correlation between the two is not conclusive to statically significant/insignificant.

This is indicative of the fact that the liquidity and profitability are not practically directly proportional, i.e. with increase in liquidity, and the profitability practically does not exist.

The upper and lower limit within which the correlation coefficient is expected to lie is given by

r + P.E. = 0.349 + 0.1873 = 0.5363 (upper limit)
r - P.E. = 0.349 – 0.1873 = 0.1617 (lower limit)

Hence, the correlation coefficient is expected to lie between 0.1617 and 0.5363.

4.7 Analysis of Cash and Bank Balance to Account Receivable

This ratio can help to measure the relationship between the cash and bank balance to account receivables. The higher ratio indicates better liquidity position and vice-versa. However, too high ratio indicates excessive cash balance are held idle, and that the transactions are limited only two parties making prompt payments. The following table shows the relationship of A/R to cash and bank balance.

Table No. 17
Analysis of Cash and Bank Balance to Account Receivables
(Rs. in million)

fiscal Year	Cash and bank balance	Account receivables	% of AIR
2056/57	87.90	11.8221	743.52%
2057/58	87.50	8.2117	1065.55%
2058/59	87.01	7.3612	1182.00%
2059/60	90.60	8.0561	1125.60%
2060/61	133.93	3.2252	4152.61%
2061/62	183.46	2.6290	6978.31%
2062/63	214.71	3.5515	6045.61%
2063/64	176.41	3.8309	4604.92%
2064/65	189.25	4.6106	4104.67%
2065/66	198.48	4.8122	4127.63%
Total	1449.48	58.1105	
Average	144.948	5.81105	2494.35%

Source: Balance Sheet of DDC of the Relevant Year.

The figure indicates that ratio fluctuates from 743.52 to 6978.31, and erratic fluctuations. It means the fluctuation of cash and bank in each and every study year are so high. During study period cash and bank balance is minimum in the year 2058/059, but in the FY 2062/063, the cash balance is so high in comparison with other balance. In FY 2061/062 and 2062/063 the ratio are 6978.31 percent and 6045.61 percent event the ratio of other fiscal year (i.e. from 2061/062 to 2065/066), which has indicated that the cash balance held is excessive and has been idle. The erratic fluctuation suggest that the corporation has not been following a definite policy regarding how much cash balance has to hold at the fiscal year end. The average ratio is 2494.35 percent, which is quite excessive (i.e. cash balance).

Karl Pearson's coefficient of correlation (r) between cash and bank balance and account receivables has been computed on excel worksheet as follows.

Correlation coefficient (r) = -0.797, which shows that there existed negative correlation between cash balance and account receivables.

Since, correlation (r) is negative, in order to compare it with probable error (P.E.). It has been calculated as follows.

$$\text{Probable Error (P.E.)} = \frac{0.6745\sqrt{1-r^2}}{\sqrt{n}} = \frac{0.6745\sqrt{1-0.797^2}}{\sqrt{10}}$$

$$= 0.077$$

$$6(\text{P.E}) = 6 \times 0.077$$

$$= 0.462$$

Now, if r> 6 (P.E.), it is indicative of statically significant positive correlation.

If r < P.E. It is indicative of statically insignificant positive correlation.

But in this case P.E. > r < 6 (P.E.) i.e. 0.077 > -0.797 < 0.462. This implies, through there exists negative correlation between the two, no conclusion could be derived as to statically significant/insignificant.

Therefore, this correlation analysis indicated that the cash and bank balance has not been increasing with increase in its account receivables.

The upper and lower limits within which the correlation coefficient is expected to lie are given by:

r + P.E. = -0.797 + 0.077 = -0.72 (upper limit)
r - P.E. = -0.797 – 0.077 = 0.874 (lower limit)

So, the coefficient of correlation is expected to lie between -0.72 and -0.874 respectively.

4.8 Analysis of Receivables/Debtors Turnover Ratio

This ratio shows how quickly receivables or debtors are converted into cash, "In other words the debtors turnover ratio is a test of the liquidity of the debtors of debtors of a firm" (khan and Jain, 1986:664). The ratio describes how will the debtors have been handled by the company. In connection with this ratio, average collection period is also calculated. Higher ratio and shorter average collection period indicates better trade credit management and better liquidity of debtors, and consequently better liquidity of the enterprises, Likewise, lower ratio and longer average collection periods signals delayed payments by the debtors.

Table No. 18
Analysis of Receivables/Debtors Turnover Ratio

(*Rs. In million)*

Fiscal Year	Sales	Receivables	Ratio (times)	Total cash collection %	Average collection days
2056/57	819.15	11.8221	69.28	98.55%	5
2057/58	880.40	8.2117	107.21	99.06%	3
2058/59	1053.76	7.3612	143.15	99.30%	3
2059/60	1274.10	8.0561	158.15	99.36%	2
2060/61	1278.19	3.2252	396.31	99.75%	1
2061/62	1387.36	2.6290	527.71	99.81%	1
2062/63	1348.39	3.5515	379.66	99.74%	1
2063/64	1484.77	3.8309	387.57	99.74%	1
2064/65	1548.23	4.6106	335.79	99.70%	1
2065/66	1595.90	4.8122	331.63	99.70%	1
Total	12670.25	58.1105	-	-	
Average	1267.025	5.81105	218.03	99.54%	**2**(Approx)

Above table shows the ratios are fluctuating and very from the lowest 69.55 times to the highest of the 527.91 times with total collection percentage of the 98.55 percent to 99.81percent and average collection period or days of a 1 days to 5days in the FY 2060/061 to 2065/066 and FY 2056/057 respectively. The most satisfactory receivables management has been observed in FY2061/062 although the receivable management in each and every fiscal year is So satisfactory on the basis of total cash collection percentage, because there is a few percentage of account receivables in comparison to the sales volume, which can be computed by one or two percentage of total sales volume, that's the normal case for DDC.

Likewise, the average collection days very from 1days to 5 days and overall average collection days is 2 days. However, it should be noted that too short average collection days doesn't necessarily imply that the firm is functioning well, for it indicates a very restrictive credit and collection policy and thereby sales only to those debtors whose financials conditions are sound and who makes their payment readily. Such restrictive policy would definitely avoid bad debts.

It is be noted that, DDC being a public enterprises supported by government, can execute credit regulatory rules with full authority to private enterprises; and as such minimize the risk of receivables turning into bad debts. Therefore, although DDC, a public enterprises, has strict credit policy. It can avoid the risk of bad debts compared to the private companies.

4.9 Analysis of Inventory (or Stock) Turnover Ratio

It is the another way of analyzing the liquidity of an enterprise by calculating how quickly the least liquid current assets, i.e. inventory is converted into cash. This ratio of inventory turnover or the ratio of sales to inventory gives idea on how quickly the inventories are converted to sales. High inventory turnover ratio signals better inventory management and vice-versa. However, very high inventory turnover ratio is indicative of under investment in or very low level of inventory, and as such implies that the firm has not been meeting customer demand. This also foretells that firm might go out of stock incurring

high “stock and cost”, which is unfavorable for the firm. So, a firm should go for an optimum inventory ratio, which indicates some inventory management. Under this, fluctuations in inventory turnover ration can be studied.

Table No. 19
Analysis of Inventory Turnover Ratio
(Rs. In million)

Fiscal Year	Sales volume (Rs.)	Inventory (Rs.)	Ratio/times
2056/57	819.15	98.36	8.32
2057/58	880.40	70.79	12.43
2058/59	1053.76	128.16	8.22
2059/60	1274.10	140.41	9.07
2060/61	1278.19	190.19	6.72
2061/62	1387.36	186.58	7.43
2062/63	1348.39	188.51	7.15
2063/64	1484.77	219.05	6.77
2064/65	1548.23	165.71	9.34
2065/66	1595.90	156.21	10.21
Total	12670.25	1543.97	
Average	1267.025	154.397	8.20

The fluctuates form 6.72 times to 12.43 times and these occurs at FY 2060/061 and FY 2057/058. The ratio 12.43 in FY 2057/058 is the highest of all ratios, has definitely suggested that during the period, either the company should have undergone under-investment or the inventory hold was comparatively lower. And at last overall ratio ha been calculated 8.2 times.

4.10 Analysis of Cash and Bank Balance to Current Assets

As stated earlier cash is the most liquid current assets and as such more the amount of cash balance in an enterprise, more liquid the enterprises in meeting its current obligations. However, bearing excess case signifies cash balance being held idle without any motives.

This ratio indicates the promotion of cash balance in the current assets. Stable pattern of ratio for different fiscal year indicate that the company has been flowing a systematic policy regarding how much cash balances to hold at the fiscal year end.

Table No. 20
Analysis of Cash and Bank Balance to Current Assets
(Rs.In million)

Fiscal Year	Cash and bank balance	Current assets	Ratio (%)	Difference in ratio
2056/57	87.90	208.34	42.19%	-
2057/58	87.50	202.96	43.11%	092%
2058/59	87.01	245.57	35.43%	(7.68%)
2059/60	90.60	268.66	33.75%	(1.68%)
2060/61	133.93	360.91	37.01%	3.26%
2061/62	183.46	412.29	44.49%	7.48%
2062/63	214.71	451.55	47.54%	3.05%
2063/64	176.41	501.42	35.18%	(12.36%)
2064/65	189.25	444.64	42.56%	7.38%
2065/66	198.48	450.77	44.06%	1.50%
Total	1449.48	3547.10		
Average	144.948	354.71	41.56%	

The observation of the ratio shows that proportion of cash and bank balance in current assets range from the lowest of 33.75 percent to the highest of 47.54 percent in fiscal years 2059/060 and 2062/063 respectively. Attention has been drawn in the FY 2058/059, 2059/060 and 2063/064 where the proportion of cash balance in current assets is comparatively lower than other ratios in the respective fiscal years with 35.43 percent, 33.35 percent and 35.18 percent respectively. The company must have undergone cash scarcity to meet short term payment during these fiscal years. The average ratio has been calculated 41.56 percent.

Karl Pearson's coefficient of correlation (r) between cash and bank balance and current assets is = 0.942 as computed a Microsoft excel worksheet.

Since, coefficient of correlation is 0.942, which tends to 1. This shows that there exists significant positive correlation between these two variables. Therefore, this indicated that DDC has a definite practice as to what should be the proportion of cash balance in its total current assets.

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{n}} = \frac{0.6745(1-0.942^2)}{\sqrt{10}}$$

$$= 0.024$$

Similarly,

$$6(\text{P.E.}) = 6 \times 0.024 = 0.144$$

Now, if r > 6(P.E.), it is indicative of statically significant positive correlation.

Where, if r < P.E., it is indicative of statically insignificant positive correlation.

But in this cash P.E. < r > 6(P.E.) i.e. 0.024 < 0.942 > 0.144. this implies, though there exists significant correlation positive correlation between these two variables.

The upper and lower limits within which the correlation coefficient is expected to lie are given by:

r + P.E. = 0.942 + 0.024 = 0.966 (upper limit)

r - P.E. = 0.942 – 0.024 = 0.918 (lower limit)

So, the coefficient of correlation is expected to lie between 0.918 and 0.966.

4.11 Analysis of Cash and Bank to Current Liabilities

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

Table No. 21
Analysis of Cash and Bank Balance to Current Liabilities

(Rs. In million)

Fiscal Year	Cash and bank balance	Current liabilities	Ratio (%)
2056/57	87.90	151.19	58.13%
2057/58	87.50	92.54	94.55%
2058/59	87.01	128.12	67.91%
2059/60	90.60	155.59	58.28%
2060/61	133.93	200.78	66.70%
2061/62	183.46	231.01	79.41%
2062/63	214.71	268.91	79.84%
2063/64	176.41	157.18	112.23%
2064/65	189.25	156.22	121.14%
2065/66	198.48	387.77	51.22%
Total	1449.48	1929.31	-
Average	144.948	192.931	75.12%

The above table shows that the ratios fluctuate from the lowest of 51.22 percent to the highest of 121.14 percent in FY 2065/066 and 2064/065. The data between the FY 2059/060 to FY 2064/065 shows the increasing trend of the ratio. Since the fluctuation is inconsistent. It could be stated that the company has been facing situation of cash excess and deficit in making payments during the fiscal year under study. This has clearly indicated that DDC has not been following a systematic cash management practices because of high cash balance exceeds current liabilities in FY 2063/064 and 2064/065 and vice-versa. The average ratio has been found calculated 75.12 percent.

Karl Pearson's coefficient of correlation (r) between cash and bank balance and current liabilities is given by coefficient of correlation (r) = 0.699 (as calculated on excel worksheet).

Since, coefficient of correlation is positive. It indicates that there exists positive correlation between cash and bank and current liabilities.

In order to compare it with probable error (P.E.) has been calculated as follows:

$$\text{Probable Error (P.E.)} = \frac{0.6745(1-r^2)}{\sqrt{n}} = \frac{0.6745(1-0.832^2)}{\sqrt{10}}$$

$$= 0.065$$

Similarly,

$$6(\text{P.E.}) = 6 \times 0.065 = 0.3938$$

In this case, P.E. < r > 6 (P.E.) i.e. 0.065 < 0.832 > 0.3938, this indicates that there is significant positive correlation between cash and bank balance and current liabilities. In other words, when cash balance held increasingly then the current liabilities is also increased and vice-versa. So, this definitely shows that there exist cash available to meet current liabilities payment as well.

The upper limit and lower limit within which the correlation coefficient is expected to lie are given by.

r + P.E. = 0.832 + 0.065 = 0.897 (upper limit)

r - P.E. = 0.832 – 0.065 = 0.767 (lower limit)

Hence, the correlation coefficient is expected to lie in between 0.767 and 0.997.

4.12 Analysis of Current Assets Variable: Inventory, Sundry Debtors and Advance Payment

In the section of analysis, an attempt has been made to analyze dispersion in current assets variables: inventory, sundry debtors and advance payment, and find out the type of correlation existing between the dispersion in these variables and sales, overall, the analyzes have been targeted to examine the operating activities of DDC.

The following figures have been extracted from balance sheet of DDC.

Table No. 22

Analysis of Current Assets Variables: Inventory, Sundry Debtors and Advance payment

(Rs. In million)

Fiscal Year	Inventory	Increase/ Decrease	Receivables	Increase/ Decrease	Advanced paid	Increase/ Decrease
2056/57	98.36	-	11.82	-	10.26	-
2057/58	70.79	(27.57)	8.21	(3.61)	36.46	26.20
2058/59	128.16	57.37	7.36	(0.85)	23.04	(13.42)
2059/60	140.41	12.25	8.05	0.69	29.52	6.48
2060/61	190.19	49.78	3.22	(4.83)	33.57	4.05
2061/62	186.58	(3.61)	2.62	(0.60)	39.63	6.06
2062/63	188.58	1.93	3.55	0.92	44.78	5.15
2063/64	219.05	30.54	3.83	0.28	102.13	57.35
2064/65	165.71	(53.34)	4.61	0.78	87.07	(15.06)
2065/66	156.21	(9.5)	4.81	0.20	91.11	4.04

Generally accepted rule that, if there has been a sound cash management practice in an organization, the fluctuation in increase/decrease of the variables is moderate i.e. more or less consistent. The other rule is that these increase/decrease in variable moves in the same direction as the increase/decrease in sales and profit of the organization. In other words increase in these variables should give rise to increase in sales and profit of the organization and vice-versa; i.e. inventory, receivables and advance paid are positively correlated to sales and profit.

The above table definitely shows that increase/decrease in the variables is not consistent. Analysis has to be carried on the part if such inconsistency in the variables is in positive correlation with sales and profit of DDC. These heavy fluctuations in increment/decrement of the variables could only be favored if such fluctuations have positive correlation with sales and profit of DDC.

4.12.1 Analysis of Dispersion in Inventory and Correlation Between Sales and Inventory

The measure of dispersion i.e. standard deviation and coefficient of variation (C.V.) of the inventory has been computed and only result is to be shown as follows:

Standard Deviation(S.D.)= 43.36 million

$\therefore \pm = \sqrt{\frac{1}{N} \quad X^2}$ where, x = X - $\overline{X}$

Mean value of inventory ($\overline{X}$) =154.397 million
Coefficient of Variation (C.V.) =28.08%

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

Standard deviation of 43.36 million and C.V. of 28.08 percent suggest that fluctuation in inventory is high. We know that less the C.V., more will be the uniformity; consistency etc. and more the C.V. less will be the uniformity, consistency etc.

As a general rule the fluctuation in this variables should be positively correlated with sales computation of Karl Pearson's coefficient of correlation as calculate between sales and inventory (r) =0.793 0n excel worksheet. This suggests that there exist positive correlation between variables.

Computation of probable Error (P.E.) = $\frac{0.6745\sqrt{1 - r^2}}{\sqrt{N}}$

$= \frac{0.6745\sqrt{1 - 0.793^2}}{\sqrt{10}}$

$\therefore$ P.E. = 0.079
$\therefore$ 6(P.E) = 6 × 0.079 = 0.474

Here, P.E. < r > 6 (P.E.) i.e. 0.079 < 0.793>0.474. This implies, though there exists positive correlation between the two i.e. there is significantly positive correlated.

This is indicative of the fact that the firm has been increasing its inventory level with increase in sales and vice-versa.

The upper and lower limits within which the correlation coefficient is expected to lie are given by:

r + P.E. = 0.793 + 0.079 = 0.872 (upper limit)
r - P.E. = 0.793 – 0.079 = 0.714 (lower limit

So, the coefficient of correlation is expected to lie between 0.714 and 0.872.

4.12.2 Analysis of Dispersion in Receivables and Correlation between Sales and Receivables

Standard deviation and coefficient of variation (C.V) has been calculated and only result is to be shown here as follows:

Standard Deviation (S.D.) = 2.78 million

$\ldots\pm = \sqrt{\frac{1}{N} \quad X^2}$ Where, x = X - $\overline{X}$

Mean value of Receivables ($\overline{X}$) = 5.81 million

Coefficient of Variation (C.V.) = 47.84% ($\ldots$C.V. = $\frac{\pm}{\overline{X}} \mid 100$)

Standard deviation of 2.78 million and C.V. 47.84 percent suggests that the receivable fluctuate moderately and comparatively lower then cash and bank balance in the earlier analysis. Such fluctuation could only be favored if receivables has a positive and practically significant correlation with sales.

Computation of Karl Pearson's coefficient of correlation between receivables and sales are computed on excel worksheet (r) = -0.791. This indicates that there exist negative correlation between sales and receivables.

However of calculation of probable error will justify if such correlation is statistically or practically significant/insignificant.

$$P.E = \frac{0.6745\sqrt{1-r^2}}{\sqrt{N}} = \frac{0.6745\sqrt{1-0.791^2}}{\sqrt{10}}$$

$$\ldots P.E. \times 0.079$$

$$\ldots 6(P.E.) \times 6 \mid 0..079 \times 0.474$$

Here, P.E. > r < 6 (P.E.) i.e. 0.079 > -0.791 < 0.474. This implies, though there exists negative correlation between the two i.e. there is insignificantly negative correlation.

This is indicative of the fact that the firm's receivable is decreased when sales is increased and vice-versa.

This suggests that DDC has not been maintaining significantly sundry debtors (receivables) in accordance with sales.

The upper and lower limits within which the correlation coefficient is expected to lie are given by:

r + P.E. = -0.791 + 0.079 =-0.712 (upper limit)
r - P.E. = -0.791 – 0.079 = -0.87 (lower limit)

So, the coefficient of correlation is expected to lie between -0.712 and -0.87.

4.12.3 Analysis of Dispersion in Advanced Payment and Correlation between Sales and Advanced Payment

Standard deviation and coefficient of variation (C.V.) has been calculated and only result is to be shown here is follows.

Standard Deviation (S.D.) = 30.15 million

Mean value of Advanced Payment ($\bar{X}$) =49.79 million

Coefficient of Variation (C.V.) =60.59 %

Standard deviation of 30.15 million and C.V. 60.59 percent states that advanced payment has been highly fluctuating. However, more stability is desired.

Computation of Karl Pearson's coefficient of correlation between advanced payment and sales (r)=0.806(as calculated on excel worksheet). This indicates that there exists positive correlation between the two variables.

Since, correlation (r) is positive, in order to compare it with probable error, it has been calculated as follows:

$$\text{P. E.} = \frac{0.6745(1-r^2)}{\sqrt{N}} = \frac{0.6745(1-0.806^2)}{\sqrt{10}}$$

$$\therefore \text{P.E.} = 0.074$$

$$\therefore 6(\text{P.E.}) = 6 \times 0.074 = 0.444$$

Here, P. E. < r > 6 (P. E.) i.e. 0.074 < 0.806 > 0.444. this implies that there exists significant positive correlation between sales and advanced payment. That means increase in sales tends to increase in advanced payment and vice-versa.

Comparing dispersion in current assets variables: inventory , receivables and advanced payment. It has been concluded that the least dispersed variable is inventory with C.V. of 28.08 percent, then follows receivables with C.V. of 47.84 percent and the most dispersed is advanced payment with C.V. of 60.59 percent . It is to be noted that low C.V. refers to low degree of dispersion and vice- versa.

4.13 Analysis of Current Liabilities

In the section of analysis, an effort has been made to analyze current liabilities of DDC with respect to it's dispersion. Low degree of dispersion is considered favorable, signifying the firm to be smoothly handling its liabilities.

Standard deviation and coefficient of variation of current liabilities has been computed and only result is to be shown as follows.

Standard Deviation (S.D) = 80.80 million

Mean value of C.L. ($\overline{X}$) = 192.93 million

Coefficient of Variation (C.V) = 41.86%

Standard deviation of 80.80 million and C.V of 41.88 percent is indicative of the fact that current liabilities have been moderately fluctuating. However, a more stable or comparatively low fluctuation in current liabilities should have been favorable for the firm.

Hence, finally, the important part of this dissertation i.e. presentation and analysis of data comes to end. Overall, the cash management of DDC has been analyzed to be poor. However, the analysis presented here could not be considered complete and final. The time constraints and unavailability of the data have limited the slope of this analysis. In subsequent chapter, major findings of the analysis and recommendations to remedy the situation have been presented systematically. In the like manner conclusion have been drawn at the end.

CHAPTER-V

SUMMARY OF MAJOR FINDING, CONCLUSION AND RECOMMENDATION

5.1 Introduction

The study focuses on the cash management adopted by DDC. It attempts to analyze the cash management of DDC for last ten years from 2056/057 to 2065/066. DDC has growing concern of greater national importance in the area of providing milks and other milky manufactured items. It contributes significantly to the economic development of the country. However, DDC is found to be suffered from “cash management”. So, the objective of this study is to have true insight in to its “cash management”. An effect has been made to assess and analysis the “cash management” of the corporation. An attempt has also been made in the study to provide a possible suggestive frame work for the better cash management of DDC.

In order to fulfill aforementioned objectives, as stated in earlier in chapter - III “research design” is adopted for the study. This study is based mainly on the secondary data. It constitutes mostly the balance sheet, and profit and loss account for the relevant year. Besides these, the performance has also been supplemented from interview with related person of DDC. This study used financial statistical tools to accomplish the objective. They are financial ratio, and correlation regression for the relevant years.

This chapter is divided into four section i.e. introduction, finding, conclusion and recommendations:

The First Section is intended give a brief introduction about this chapter.

The Second Section is finding which are found after the study for last ten years period of DDC.

The Third Section highlights the conclusion based on major finding of the study.

The Forth Section recommendation the corrective actions that the management of DDC should take to improve the present condition of DDC.

5.2 Major Finding

The following major finding is found during study of last ten-year periods of DDC.

5.2.1 DDC doesn't have any definite policy regarding how much of cash balance has to hold in each fiscal year.

Cash and bank balance is held during each fiscal years under study were observed to be moderately erratic and thus the very fact indicated the firm to be lacking definite policy regarding how much of cash and bank balance to be hold in each FY. More over, the cash balance held is in some extent of increasing trends. A glance at char (Fig. 2) and Lorenz Curve shows an erratic dispersion of cash and bank balance of 50.15 million and C.V. of 34.59 percent are the supporting analyses. Equation of straight-line trends shows that cash balance increased by 15.62 million every year.

5.2.2 DDC has been forecasting cash balance a little bit taking into consideration to the sales volume. That means in some extend cash and bank balance has been holding accordance the sales of DDC.

Correlation coefficient between cash and bank balance with sales is positive of 0.8348 and the relation of P.E. < r > 6(P.E.), indicates statistically significant correlation between both variables. Moderate fluctuating cash turnover ratio (6.28 times in FY 2062/063 to 14.05 times in FY 2059/060) also added much more emphasis on the relation of cash and bank balance with sales.

5.2.3 In some extent, DDC able to maintain an about nearer to half proportion of current assets is cash.

Proportion of cash and bank balance in current asset is very moderate and the cash and bank balance held shows the relation with the amount of current assets of DDC.

The average ratio of cash balance to current assets is 41.56 percent, which is about to moderate proportion of cash in current assets. Similarly, coefficient of correlation between these two variables (r) is 0.942 i.e. P.E. < r > 6(P.E.). It is cleared that there is a significant positive\e correlation between cash and bank balance in current assets.

5.2.4 DDC able to collect receivables from its sundry debtors timely. The receivable management of the firm has been observed to be highly satisfactory, because of average debtor's turnover ratio is so high with 218.03 times in average collection period for whole 10 years is 2 (approx) days. This is the good indication of the converting debtors in to cash promptly.

But in other side proportion of cash and bank balance compared to it's account receivables is not satisfactory because of negative correlati0on between these two variables. Which suggest that holding of cash balance has no relation with account receivable of the firm. However, positive correlation between the two variable is favorable.

5.2.5 DDC has been precisely meeting a little bit efforts to its current liabilities payment. For some FY's DDC has available of excess cash to meet it's short term creditors were as for other FY's DDC has not been faced specially for shortage of cash. However, the significant positive correlation between these two variables (r) = 0.832 and the average ratio of cash and bank balance to current liabilities is 75.12 percent. It means clear that DDC is able to meet current liabilities payment i.e. indicative of good cash management.

5.2.6 Overall, the liquidity position of the firm has been found moderately dissatisfactory.

- A large portion of DDC's current assets has been tied-up in the most illiquid assets i.e. inventory. Triangulation or the cross examination of the liquidity position suggested that current assets have been tied –up in slow moving and unsaleable inventories.
- Current assets and quick assets are partially being maintained in accordance with current liabilities.

Practically significant positive correlation between current assets and current liabilities (i.e. r =0.909), where P.E. < r > 6(P.E.) and the same significant positive correlation between quick assets and current liabilities (i.e. 'r' = 0.939), where P.E. < r >6(P.E.) indicates that perhaps current assets and quick assets are being maintained in accordance with current liabilities.

5.2.7 Profitability of DDC is being in worsening trend, liquidity does not practically increase with increase in profitability and vice-versa. In other words, positive correlation between liquidity and profitability is not practically certain. But in some extent, return on working capital ratio and current ratio is positively correlated.

5.2.8 Overall, yearly cash inflow and outflow in DDC is not properly managed surplus cash has not been properly employed to earn returns by investing in short-term investment opportunities.

- It does not prepare cash flow statement and cash budget.

5.2.9 No, optimum cash balance is maintained. The cash in bank balance with respect to current assets has been fluctuating trend. Similar is the case with respect to the total assets.

5.2.10 Inventory level of DDC is moderately unstable for each FY due to the standard deviation of 43.36 million and the correlation between sales and inventory is (r) = 0.793 i.e. P.E. < r > 6(P.E.), inductees significant positive relationship between two variables.

5.2.11 Sundry debtors or account receivables fluctuates moderately and significant negative correlation with sales.

i.e. standard deviation of Rs.2.78 million and C.V. of 47.84 percent indicates that fluctuation in sundry debtors is moderate coefficient of correlation between sundry debtors and sales is (r) = -0.791, where P.E. > r < 6(P.E.) indicative of practically insignificant negative correlation.

5.2.12 Advanced payment fluctuates highly and there exists significant positive correlation with sales.

i.e. standard deviation of 3.15 million and C.V. of 60.59 percent indicates highly fluctuation in advanced payments. Coefficient of correlation between advanced payment and sales is (r) = 0.806, where P.E. < r > 6(P.E.) and thus indicates that there is a significant positive correlation between the two variables.

5.2.13 Current liabilities fluctuate moderately.

i.e. standard deviation of Rs.80.80 million and C.V. of 41.86 percent is indicative of the fact that current liabilities fluctuate moderately.

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

5.2.15 Cash management is an effective mechanism for every organization to achieve the goals and objectives but in DDC, the management committee has not paid attention towards proper cash management.

5.2.16 The fluctuating trend of cash balance shows that DDC has been facing problem of cash management.

5.3 Conclusion

Conclusively, it can be started that DDC's cash management practices is a poor and not so effective due to the lack of mobilizing excess cash on profitable sector and lack of awareness of the employees for practicing better cash management

inside DDC. Negative profitability of the firm adds much to the worsening financial position of the firm. Besides, cash management being one of the major elements in financial function. There are other numerous aspect of finance involved in the overall financial performance of a firm. In addition to this, the overall performance of a firm account for other managerial aspects such as human resource management organizational structure, marketing management, etc. However, above also disappointing down falling trend of the financial position is indicative of the fact that DDC should immediately seek for drastic change in managerial structure. So far cash management is concerned, the recommendation suggesting below could, to a greater extent, of uplift DDC's cash management in a good situation.

5.4 Recommendations

Following variable suggestions have been recommended to improve cash management efficiently in DDC.

1 Cash planning manager or experts should be appointed. The lack knowledge of modern financial management's tools and techniques among existing employees in the organization is one of the causes of poor financial performance to the organization. DDC must insure upgrade the current financial management skill.

2 Maintain optimum cash balance in the end of the each year. The study has identified that DDC has not been maintaining optimum cash balance. The balance held are sometimes high and sometimes low without any definite purpose as to why the firm has held excess deficient balances. For a good running firm, holding of optimum cash balance as per its sales, profit and or other influencing variable is recommended.

3 Idle cash should be invested in profitable sector. The DDC should manage it's cash affairs in such a way as to keep cash balance and minimum level to invest the surplus cash funds in profitable opportunities.

4 The DDC should prepare a list monthly trial balance of financial statements, which can help remedy adverse financial situation in time. A year's time is quite lengthy and thus it is likely that analyze of yearly financial statement could not properly monitor and remedy on financial situation in time.

5 Cash budget should be developed monthly, quarterly and yearly periods on the basis of cash inflow and out flow analysis. From the analysis it has been identified that DDC has been preparing nominal cash budget without any definite policy and planning. So it is recommended to prepare cash budget that is entirely based on cash flow analysis. The objective of preparing a cash budget is to forecast whether at any point of time there is likely to be an excess or shortage of cash.

6 The DDC should prepare cash flow statement, which is one of the commonly prepared financial statements under cash management function. Since, DDC does not prepare cash flow statement, it is strongly recommended to prepare it whereby a firm is able to assess cash inflow and outflows, and thus assist in sound cash management of a firm.

7 There should not be tied up unsaleable inventories incurrent assets. It is the most illiquid current assets, affects the liquidity position of the firm and thus is unfavorable. So, it is recommended not to tie up or current asset is in unsaleable inventories. In other words, curtail unnecessary inventory to enhance liquidity position of DDC.

8 Maintain optimum current assets variables (i.e. inventory, sundry debtors and advance payments) and current liabilities every year. Study showed that besides cash and bank, other variable of current asset (inventory, sundry debtors and advanced payments) and current liabilities also fluctuate moderately. Optimizer of these variables is therefore recommended which would maintain a sound liquidity.

9 The DDC should determine minimum level of cash balance to hold every year, maintain such minimum level of cash balance as a requirement of precautionary, speculative and compensation motives, besides for daily transaction.

10 This corporation should forecast current assets and current liabilities variables with reference to change in sales and profit.

11 Poor cash management in DDC definitely counts for inefficient or poor use of financial and statistical tool. Thus, it will be better for DDC by using of statistical tool for forecasting may be used wherever applicable.

12 DDC has been bearing losses in almost all fiscal years. One of the factors that count for such negative profitability in the high operating cost. Untimely or in systematic purchase of raw milks, allocating high overhead expenses and other unnecessary operating expenses counts for such negative profitability of the firm. Thus, the suggestion is to curtail operating costs, which shall give positive impact to profitability of the firm.

13 The impressed system should operate on a weakly basis except in cases where large amount of cash required when it should be reimbursed more frequently. It is better to have smaller float and more frequent reimbursement from the bank than to carry a large float in the office.

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Appendix-I
Dairy Development Corporation, Lainchour Kathmandu
Profit and Loss Account (FY 2056/57 – 2065/66)

Rs. in Million

Statements	2056/57	2057/58	2058/59	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65	2065/66
Sales (i.e. Raw milk and milky items	819.15	880.41	1053.36	1274.10	1278.19	1387.36	1348.40	1484.77	1548.24	1595.90
Miscellaneous income	10.13	11.84	14.04	12.35	13.33	11.37	14.72	18.29	11.10	13.55
Donation of Dev. Expenses	4.09	0.71	0.05	0.01	–	–	–	–	–	–
Capital Donation	21.59	21.17	–	–	–	–	–	–	–	–
Refunding of expenses from using of scheme milk powder and butter oil	21.95	13.78	0.01	–	–	–	–	–	–	–
Total Income	877.51	927.91	1067.86	1286.46	1291.52	1398.73	1363.12	1503.06	1559.34	1609.45
Expenses										
Opening Stock	18.20	16.87	17.22	71.10	37.45	89.29	78.23	95.11	100.93	38.87
Collection exp. (Raw Milk)	560.76	612.47	801.23	903.64	986.99	1037.84	1061.42	1181.41	1142.15	1198.48
Processing Expenses	184.56	196.71	186.21	244.32	203.80	206.35	196.28	208.69	273.81	271.31
Selling Expenses	34.75	39.07	42.10	41.12	39.75	36.40	34.64	38.37	38.63	40.91
Administrative Expenses	23.46	23.80	37.19	41.23	44.90	51.29	53.27	69.09	83.00	80.00
Gratuity Exp. (Provision)	3.45	15.06	10.17	5.78	20.28	23.20	9.53	75.08	(5.43)	(5.32)
Deprecation Exp.	26.16	25.31	34.49	38.25	35.70	34.56	34.68	32.13	30.00	29.43
Interest on Loan	4.32	5.17	16.38	10.27	12.09	11.98	11.80	11.67	11.63	11.58
Total Expenses	855.66	934.46	1144.89	1355.71	1380.96	1490.96	1479.85	1711.55	1674.34	1665.56
Less: Closing Stock	16.86	17.22	71.10	37.45	89.29	78.23	95.11	100.93	38.87	64.73
	838.80	917.34	1073.79	1318.26	1291.67	1412.73	1384.74	1610.62	1634.47	1600.56
Net Profit	38.69	10.66	(5.91)	(31.80)	(0.15)	(14.00)	(21.62)	(107.56)	(76.13)	8.62
	877.49	927.90	1067.87	1286.46	129.52	1398.73	1363.12	1503.06	1559.34	1609.45
Carry forward of last year's Profit (Loss)	(10.82)	18.33	28.99	23.08	(9.63)	(10.09)	(24.09)	(45.72)	(151.62)	(227.75)
Current Year's P &L (Loss)	38.69	10.66	(5.91)	(31.80)	(0.15)	(14.00)	(21.62)	(107.56)	(76.13)	8.62

Bonus provision for employee	(3.86)	-	-	-	-	-	-	-	-	-
Provision of Income tax	(5.67)	-	-	-	-	-	-	-	-	-
Reconcile the a/c of US AID's fund adjustment in CAN RIVAIVING fund	-	-	-	(0.91)	(0.31)	-	-	-	-	-
Adjustment of last year's Sundry Income	-	-	-	-	-	-	-	1.66	-	-
total Profit transferred to balance sheet	18.33	28.99	23.08	(9.63)	(10.09)	(24.09)	(45.72)	(151.62)	(227.75)	(219.13)

Appendix-II
Dairy Development Corporation, Lainchour Kathmandu
Balance Sheet for (FY 2056/57 – 2065/66)

Rs. in Million

Statements	2056/57		2057/58		2058/59		2059/60		2060/61	
A. ASSETS SIDE										
Fixed Assets										
1) Used of Fixed assets		268.68		428.09		426.52		411.18		382.08
2) Remaining for usage & installation of Fixed assets		2.14		7.96		15.41		7.80		7.06
Neighborhood – goods donation, fund investment, bank & inventory		125.73		119.42		102.52		52.27		26.09
Current Assets										
Cash and bank balance	87.90		87.50		87.01		90.68		133.93	
Inventory	98.36		70.79		128.16		140.41		190.19	
Account Receivables	11.82		8.21		7.36		8.05		3.22	
Advanced payment	10.26	208.34	36.46	202.96	23.04	245.57	29.52	268.66	33.57	360.91
Potential loss due to change in exchange rate of foreign currency		71.53								
Deferred expenditures				3.08		2.46		1.85		1.23
Accumulated profit & loss a/c (loss)								9.64		10.09
Goods in transit (land way goods)								3.76		
Total Assets		***676.42***		***761.51***		***792.48***		***755.16***		***787.46***
B. LIABILRRITES SIDE										
Government of Nepal's Fund		36.13		60.54						
Capital donation fund from neighborhood country		259.76		268.38						
Goods and cash co-operative fund from neighborhood country		104.64		89.41		83.97				
Long term debt		106.37		203.25		198.10		165.77		162.72
Current liabilities & provision		151.16		92.54		128.13		155.59		200.78
Short term debt										

Taken loan from commercial bank in the pledge of fixed voucher				18.40				10.16		
Profit & loss a/c		18.33		28.99		23.08				
Corporation fund						359.20		389.36		389.36
CANRIVALVING fund								0.91		0.91
Donation fund from neighborhood country								33.37		33.68
Total Liability		***676.42***		***761.51***		***792.48***		***755.16***		***787.46***

Statements	2061/62		2062/63		2063/64		2064/65		2065/66	
A. ASSETS SIDE										
Fixed Assets										
1) Used of Fixed assets		364.48		342.98		315.48		288.28		275.08
2) Remaining for usage & installation of Fixed assets		8.59		6.64		6.35		5.32		11.18
Neighborhood – goods donation, fund investment, bank & inventory		2.56		2.00		1.70		1.80		1.85
Current Assets										
Cash and bank balance	183.46		214.71		176.41		189.25		198.63	
Inventory	186.58		188.51		219.05		165.71		156.21	
Account Receivables	2.62		3.55		3.83		4.61		4.81	
Advanced payment	39.63	412.29	44.78	451.55	102.13	501.42	87.07	444.64	91.11	450.76
Potential loss due to change in exchange rate of foreign currency										
Deferred expenditures		0.62				8.92		9.08		6.25
Accumulated profit & loss a/c (loss)		24.09		45.72		151.62		227.76		218.82
Goods in transit (land way goods)										
Total Assets		***812.63***		***848.89***		***985.49***		***976.84***		***963.94***
B. LIABILRRITES SIDE										
Government of Nepal's Fund										
Capital donation fund from neighborhood country										
Goods and cash co-operative fund from neighborhood country										
Long term debt		159.09		158.14		157.18		156.23		155.28
Current liabilities & provision		231.01		268.91		406.14		398.44		387.77

Short term debt										
Taken loan from commercial bank in the pledge of fixed voucher										
Profit & loss a/c										
Corporation fund		419.06		419.06		419.69		419.69		418.43
CANRIVALVING fund		0.91		0.91		0.91		0.91		0.91
Donation fund from neighborhood country		2.56		1.87		1.57		1.57		1.55
Total Liability		***812.63***		***848.89***		***985.49***		***976.84***		***963.94***

Appendix-III

Summary of Statistical Finding

1. Karl Pearson's Coefficient of Correlation

S.N.	Variables	Coefficient of Correlation	Relation of r, P.E. and 6 (P.E.)	Decision
1.	Sales and cash and bank balance	0.8348`	P.E. < r > 6 (P.E.) i.e. 0.064< 0.8348 > 0.384	Conclusive as to statistically significant+ ve correlation
2.	Current assets and current liabilities	0.909	P.E. < r > 6 (P.E.) i.e. 0.037 < 0.909 > 0.222	Conclusive as to statistically significant+ ve correlation
3.	Quick assets and current liabilities	0.939	P.E. < r > 6 (P.E.) i.e. 0.025 < 0.939 > 0.1513	Conclusive as to statistically significant+ ve correlation
4.	Net profit after tax to quick assets ratio and quick to current liabilities ratio	-0.282	P.E. < r > 6 (P.E.) i.e. 0.1963 < 0.282 > 1.178	Conclusive as to statistically insignificant - ve correlation
5.	Return on working Capital Ratio and Current Ratio	0.349	P.E. < r < 6 (P.E.) i.e. 0.1873< 0.349 < 1.123	Inconclusive as to statistically Significant insignificant +ve correlation
6.	Cash and Bank balance and Account Receivable	-0.797	P.E. > r < 6 (P.E.) i.e. 0.077 < -0.797 <0.462	Conclusive as to statistically insignificant- ve correlation
7.	Sales and Account Receivable	-0.791	P.E. > r < 6 (P.E.) i.e. 0.079 < -0.791 < 0.474	Conclusive as to statistically insignificant- ve correlation
8.	Sales and inventory	0.793	P.E. > r < 6 (P.E.) i.e. 0.079 < 0.793 < 0.474	Conclusive as to statistically significant+ ve correlation

9.	Sales and Advance payment	0.806	P.E. > r < 6 (P.E.) i.e. 0.074 < 0.806 < 0.444	Conclusive as to statistically significant+ ve correlation
10.	Cash and bank Balance to Current assets	0.942	P.E. > r < 6 (P.E.) i.e. 0.024 < 0.942 < 0.144	Conclusive as to statistically significant+ ve correlation
11.	Cash and Bank balance to Current Liabilities	0.832	P.E. > r < 6 (P.E.) i.e. 0.065 < 0.832 < 0.3938	Conclusive as to statistically significant+ ve correlation

2. Dispersion/ Standard Deviation

S.N.	Variables	Mean value $\bar{x}$ (Rs. In million)	Standard Deviation σ (Rs. In million)	Coefficient of variation (C.V.) in %
1.	cash and bank balance	144.948	50.15	34.59%
2.	Sales	1267.025	255.23	20.14%
3.	Inventory	154.397	43.36	28.08%
4.	Account receivable	5.81	2.78	47.81%
5.	Advance payment	49.79	30.15	60.59%
6.	Current liabilities	192.93	80.80	41.86%

QUESTIONNAIRE

Please read the questions clearly an then try to give the appropriate answer systematically.

1. Does your organization use "Cash budget" ?

Yes [ ] No [ ]

If 'Yes' how often do you prepare a cash budget ?

i) Annually ii) Semi-annually iii) Quarterly iv) Monthly v) Weekly

2. What methods do you follow the forecast your requirement?

i) Cash Budget Method ii) Adjusted Net income Method

iii) Ratio Analysis iv) Projected balance sheet

v) Mathematical model

3. Which of the outside agencies have been helping to your cooperation for cash planning?

i) Professional accountants ii) Financial Consultant

iii) Government Agencies iv) if other, Write (……)

4. What policy does your cooperation follow in respect to sales?

i) Cash sales ii) Cash and credit sales iii) Credit sales

5. Do you have uniform terms of credit for all customers?

Yes [ ] No [ ]

6. If 'Yes' what is the period of credit allowed to customers?

Net/…….day

7. Do you have a policy of charging interest on delayed payments ?

Yes [ ] No [ ]

8. Please indicate the time taken in collecting over due accounts beyond the period of credit allowed?

Within 7 days, 7-15 days, 15-30 days, 30 days and above

9. Does your cooperation offer cash discount to the customer for easy payment?

Yes [ ] No [ ]

10. Does your cooperation under take an analysis of outstanding debtors in terms of ages of outstanding?

Yes [ ] No [ ]

11. Write action are taken to minimize delayed payments of account receivable?

i) Reminders ii) Contract on telephone iii) Charging higher rate of interest

iv) initiate legal actions v) Any other, …….

12. Do you have a system of advance payment for customer ?

Yes [ ] No [ ]

13 To what extents does your corporation take advantage of cash discount offered by suppliers?

i) Always ii) Sometimes iii) Rarely iv) Never

14.To what extent your corporation accommodated by the suppliers with respect to delay in payment?

i) Up to 7 days 1 ii) Up to 15 days iii) Up to 30 days iv) Above to 30 days

15. Is your corporation able to discharge all short-term liabilities on due dates ?

Yes [ ] No [ ]

16. What are the elements of costs and losses which you associate with the shortage of cash? Please choose one of them?

i) High rate of interest on borrowing ii) Loss of taking discount

iii) Loosing credit worthiness iv) If other, …….

17. Do you have the practices of holding excess cash/ bank balance in current accounts in access of requirement? Yes [ ] No [ ]

18. Do you have the practices of discharging loans before the due date?

Yes [ ] No [ ]

19. How often does your corporation face the shortage of cash ?

i) Always ii) Sometimes iii) Rarely iv) Never

20. Do you have the practices of checking the adequacy of cash balance?

Yes [ ] No [ ]

21. How do you determine the minimum level of cash balances required for normal operation?

i) By means of cash budget ii) A certain % of working capital

iii) A certain % o total assets iv) With the help of ratio analysis

22. Do you ever get any advice from your banker with regards to the opportunity of investing of access cash ?

Yes [ ] No [ ]

23. What media do you use for moving funds ?

i) Mail transfer ii) Depositary transfer cheque iii) Courier service

iv) Telex transfer v) Computer terminal

24. Do you have "Zero-balance" account system with your banks?

Yes [ ] No [ ]

25. Do you have the system of performance reporting?

Yes [ ] No [ ]

26. How the DDC utilize, it's excess cash ?

i) Purchasing securities ii) Bank deposit iii) On crisis of cash

iv) If other, ……..