CHAPTER – I
INTRODUCTION

1.1 Background of the Study

Nepal is a small, least developed and landlocked country situated between two large countries India and China. It has lots of problem as well as prospectus too. Unemployment is said to be the biggest problem of the country. Nepal is an agricultural country. Most of the people of the nation are primarily engaged in agricultural sector and they are depended on agriculture to fulfill their basic needs.

A weak economy in one country may be offset by a strong economy of Nepal, it is very essential to develop the infrastructure and facilities for the establishment of manufacture and processing industries.

Industrialization is an important factor for achieving the basic objectives of a country's economic and social progress or in another words, industrialization is considered essential for economic development for the country these day. Industrialization not only provides goods and services but also creates employment opportunities. It facilitates an effective mobilization of resources of capital and skill, which might otherwise remain unutilized. Industrial development thus has a multiplier effect on the economy (Pant, 2003:17).

It is believed that in order to achieve security stability and a high standard of living, the country must be industrialized. The most important for embarking on a performance of industrialization is to increase the national income (Baryle, 1969:62). The manufacturing sectors have to face Varian presets which have acted as constraint in growth of manufacturing industries. Such problems are arises due to land locked and underdevelopment situation of the country, lack of trained and

skilled manpower, financial resource, inconvenience in transport and communication networks, non-availability of assured energy at a reasonable rates, shortage of capital, small size of the market, unawareness of the industrial potential, higher cost of production, low productivity of inputs, instabilities in government policies etc (Pradhan, 1994:43).

A weak economy in one country may be offset by a strong economy of Nepal, it is very essential to develop the infrastructure and facilities for the establishment of manufacture and processing industries.

According to history of Nepal, there was development of industries some thirteen hundred years ago. At that period, especially cottage and small industries were established and operated. At this time local people made the handicrafts goods, wooden, statues and arts and they were famous around the world.

The "Udyog Parisad" was constituted to develop industrial and commercial activities within the country in early the country in 1935. The company Act was forced in 1936 and the various small, medium and large scale industries were established in the private sectors. In the same year Biratnagar Jute mill was established as Authorized capital of Rs. 1.6 million and paid -up capital of Rs. 0.8 million.

So, the history of public limited company began with Biratnagar Jute mill Limited the established of this enterprise can be considered as land mark in the history of industrial development in Nepal. After the establishment and up to 1945 some 20 Joint stock companies manufacturing handmade paper, soap, ceramic, furniture, matches, textile, cigarette, etc. were incorporated. In between 1936 -1945, it is stated that altogether 64 companies were established (Giri, 1976: 42).

Industrialization is the process of manufacturing customer's goods, capital goods and of creating social overhead capital in order to provide goods and services to both individual and business. It is an important factor for achieving the basic objective of a country's economic and social progress. Industrialization not only provides goods and services but also creates employment opportunities. It facilitates an effective mobilization of resource of capital, skills, which might otherwise remain unutilized. It also acts as a vehicle for fostering innovation and improvement. Industrial development thus, has a multiplier effect on economy (Pant, 2002:128).

During the third plan, (1965-70) an industrial promotion and productivity center, a joint project of NIDC and HMG/N was established to act as an agency for providing facilities for industry (Ministry of Industry and Commerce, 1976). The government attempted to establish some industries with an objective of gradually selling them to private sector within the period of this plan. In 1981 New Industrial Policy was declared and the main feature of this policy was that all industries were kept open to the private sector except the defense industry. In 1992, again the new industrial policy was declared and the policy was very liberal in respect of registration and other official procedures. The private sector investment as well as foreign investment is invested in all most areas of industries.

Never the less to say that, manufacturing sector is also an important sector to develop economy but manufacturing sector is critical to pursuit of sustained growth due to its potential to promote to technological capacities, advance the diversification of production and exports and adds values to exports and to foster intersectional industry linkages.

Development plans of Nepal have been emphasizing the development of both public and private sector industries. But there is also another view in this regard. It

is mentioned that, that is not private sectors which has not come forward to stabilizer industry, but it is the concerned authorities that didn't allow the private sector an appropriate types of clear policy and practicable programs, best in reality, would be realized. The development planner have felt that lack of industrial development strategy in Nepal has posed a curtail problem in designing an industrial program which is not most causes for more listing of projects in the company's development plan (Pradhan,1984:61).

Cash is the most important current assets for the operation of the business. It is the basic input needed to keep the business running on a continuous basis. It is ultimate output expected to be realized by selling the services or products manufacturing by the firm as well. The firm should keep sufficient cash, which should be neither more nor less. Cash shortage will disrupt the firms manufacturing operation, while excessive cash will simply remain idle unproductive. Thus the major function of financial manager is to maintain a sound cash position.

A financial institution collects the funds in term of deposits and extends loan and advance to various sectors. The main sources of funds besides equities are saving and time deposit collection and issuance of debentures. The collected funds or sources are invested in those areas, which are generally ignored by the commercial bank (i.e. housing finance, consumption loans etc.) Therefore finance company can be considered as complimentary to commercial banks. The financial institutions have great importance to the national economy. They are important part of the trade, commerce and industry, which collect different unused funds and mobilize it into need} sectors (Dahal, 1998:25).

Cash as the most liquid asset is of vital importance to daily operation of business firm. Cash is both the beginning and end of the working capital cycle i.e. cash,

inventories, receivables and cash. Its effective management is the key determinant of efficient working capital management. Cash is like the blood stream in the human body that gives vitality and strength to business enterprises. The steady and healthy circulation of cash is needed throughout the entire business operation is the basis of business solvency.

'Cash is the money, which the firm can disburse immediately without any restriction. The term 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, 1999:911).

Simply, cash refers assets continuing the most liquid item among all the assets. A firm has focus for cash management for smooth run. The size of cash balance in hand and in account to be maintained on the behavior of operating cash flows of firms. Each business operation is unique in the matter of cash collection and disbursement, as such as, a firm needs to follow cash management strategies and policies. A manufacturing company must maintain certain cash during production and sales.

The main objectives of cash management are as follows:
1. To meet payment schedule
2. To minimize funds committed to cash balances.
3. For speedy collection of usable cash.
4. To slowing disbursement
5. Effective use of Capital
6. To maximize the profit of the origination

1.1.1 Brief Introduction of Company

Bottlers Nepal ltd Company is one of the manufacturing and processing companies, which is manufacturing soft drinks under the brand name of Coca Cola

Company. Its registered office is located in balaju, Kathmandu and head office remains the same. The company is located in balaju in area of 10648 Sq meter of land and building of company covers 5823 sq.m.

Bottlers Nepal established as multinational company, its parent company is Coca-cola (Asia) Ltd, a company incorporated in Dubai, UAE which holds 98.16 percent shares of Bottlers Nepal Ltd. The principal activity of the company is to manufacture and sell soft drinks under registered trademark of The Coca-Cola Company. It has listed its ordinary shares at Nepal stock exchange in 1984/06/21. It has two subsidiary company named Bottler (Terai) Pvt Ltd, and Troika Traders Pvt. Ltd. Troika Traders Pvt. Ltd involved in the distribution of the products of parent company. Company distributes its product through the "Manual Distribution Center" directly through the Troika traders. Four Boards of Directors of the company are nominated from Coca Cola Sabco (Asia) ltd and rest form the Nepalese Shareholders.

The boards of directors of the company in the office at the date of this report preparation are as follows.
- Mr Denish Kearney
- Mr. Sunil Ghatneka
- Mr. N.N. Singh
- Mr. Alex van Bher

Talking about the creditors of the company, the company does not borrow fund normally; however during the peak seasons of the business it borrows funds from the following:
- Raw material for production is imported from France and Atlanta.
- Crown crocks from Philippines, Sri-lanka, & Singapore.
- Sugar is used from Nepal.

）Sometimes the sugar is imported from Thailand.

）Flavor of the coke is prepared by the company secretly and is sold without disclosure. These are brought from countries like Singapore and Germany.

The company covers roughly 90% of the Nepalese markets when compared with other brands of the similar products.

The company has authorized share capital of Rs. 648, 00,000 and paid up value par share is Rs 10. It is each issued capital of Rs. 435, 00,000. Numbers of shareholders in this company are 37. The paid up capital is Rs. 1, 96, 73,000 and per value per share is Rs 100.

The Bottlers Nepal Limited (Terai) is the subsidiary company is which approximately 91% of equity share belongs to holding company Bottlers company balaju. The company has continuously increased investment in the subsidiary company by acquiring additional share from open market. The company's equity interest increased from 90.44% to 90.78% after the new acquisition of share in Bottlers Nepal Limited (Terai). Everyone is familiar with the idea of the budget it is essential in every walk of our national, domestic and business. A budget is prepared to have efficiently as possible. Budgeting is powerful tool to the management for performing its functions efficiently.

1.2 Statement of the Problem

Cash management in manufacturing companies of Nepal is primarily based on traditional approach. A more serious aspect of cash management has been the absence of any formalized system of planning and budgeting. Cash management refers to the proper management of firm's cash position. It is concerned with all decisions and acts that influence the determination of the appropriate level of cash and their efficient use as well as choice of the financing method, keeping in view

of liquidity. The cash and bank balance of an enterprise is that the portion of its total current assets, which is put to variable operative purpose and has the characteristics of greater divisibility, liquidity and rapidity of turnover which influence the types and terms of financing. Hence, cash management is in itself a decision-making area within the framework of the overall current assets management.

Most of biggest enterprises had periodic accumulation of cash surplus and corresponding cash shortage from time to time. However, none of the enterprises considered the implications of holding cash balance and few took in the account the potential benefit of investing surplus in marketable securities. Which did failed to consider the cost of administrating such investment.

Hence this study holds some importance on this regards. The present study will also highlights about application of detailed and systematic cash management in Nepal, especially in Bottlers Nepal Limited (Terai). Similarly the firm would follow the suggestion of this study will highlight and analyze the problems and practices a prospectus in cash management in manufacturing company. Besides the present study will help the general interest and minimizes curiosity of various people and as well as this study will help to overcomes the certain limited problems regarding cash management.

The study attempts to have insights over the problem of cash management in listed manufacturing companies so that attempt has been made to identify the answer of following questions as a major problem.

) What is the liquidity position of the company and are the companies able to maintain appropriate level of liquidity position?

) To what extend the Bottlers Nepal Limited (Terai) is generating profit and cash?

) Whether Bottlers Nepal Limited (Terai) is able or not to manage its cash balance more effectively and efficiently?

) What is the relationship between and among influencing variable of cash management?

) Are the companies able to collect and to make payment at a considerable time span?

1.3 Objectives of the Study

The major objective of this study is to examine the management of cash in manufacturing company i.e. Bottlers Nepal Limited (Terai). The basic objectives of the study are as follows:

1. To identify the liquidity position of the company.
2. To study the relationship of cash with other influencing variables of cash.
3. To make analysis of cash conversion cycle of the company.
4. To analyze the statement of cash flows.
5. To provide necessary recommendation for improvement of cash management on the basis of analysis.

1.4 Scope of the Study

Nepal Bottler limited (Terai) has been chosen as sample among various manufacturing company. Hence, the finding could not be extensively generalized to the existing manufacturing company of the country. The research study will depend on the Bottlers Nepal Limited (Terai). On the basis of this study we can imagine that the cash management of manufacturing company of Nepal.

1.5 Significance of the Study

The importance of the study being on a critical examination of cash management technique of Bottlers Nepal Limited (Terai). The explosive growth of investing and raiding capital in the global market has put new emphasis on a policy which

strives for zero- working capital. The worldwide financial analysts, together with analyst's researchers, users, regulatory bodies are involved in great effort in the management of working capital through efficient cash management. The primary goal of cash management is to reduce the amount of cash held to the minimum requirements to conduct business. This study has more importance. They can be presented into from heading.

) The study of cash would be a crucial study because suggests to manage cash more efficiently by the selected Nepalese manufacturing companies.

) It will also be helpful for the mgt to improve the efficiency as well as the profitability with proper management of cash.

) It may be useful as references of review for relevant researcher

) This study helps business people to impose better cash management practices whereas analysis and academician can make further researcher.

) The study will help and feedback to the concern organization to maximize their revenue.

1.6 Limitation of the Study

In the context of Nepal, data problem is acute. There is considerable place for arguing about its accuracy and reliability. There are limitations, which weaken the generalization e.g. inadequate coverage of industries, time period taken, reliability of statistical tools used and other variables. This study is simply s partial requirement of MBS program. So this study will limit by the following factors:

) This analysis is based on the secondary data available from enterprises.

) This analysis covers only the span of last 5-6 years.

) As we have a limited budget we have to study living under there limited resources.

) Bottlers Nepal Limited (Terai) is a highly competitive organization. So it is very hard to get required data.

∫ Only one company has been chosen as a sample among more manufacturing companies to fulfill the purpose of the study.

1.7. Organization of the Study

This study has been organized into five chapters. They are as follows:

Chapter – I Introduction

This chapter includes background of the study, statement of the problem, objectives, scope, significance, limitation and organization of the study.

Chapter – II Review of Literature

This chapter i.e. review of literature deals with theoretical framework and review of related studies.

Chapter – III Research Methodology

This chapter deals with introduction, research design, population and sample, nature and source of data and tool and techniques for analysis data i.e. statistical and financial tools.

Chapter – IV Presentation and Analysis of Data

The fourth chapter deals with presentation of related data collected from different sources then analysis them to reach closer to the actual result by using financial and statistical tools and techniques.

Chater – V Summary, Conclusion and Recommendations

The last chapter provides the summary of major findings, recommendation and conclusion of overall study.

An extensive bibliography and appendices are also included at the end of the part of thesis book.

CHAPTER – II
REVIEW OF LITERATURE

2.1 Conceptual Framework

2.1.1 Meaning of Cash

The term cash has a meaning according to the purpose for which it is used and persons with varying branches of knowledge convey various meanings of cash. If you ask ith an economist, he considers cash as the means to satisfy human wants. But a lawyer opines the view that cash is the legal lender money issued by a determinate authority. However, over concern of the meaning of cash is to look from a view point of the balance sheet. Cash is an asset constituting the most liquid item among all the assets. But to obtain cash involves cost because corporations have to rise through issue of share of by borrowing with interest. Indeed cash which has a cost, whether received internally through money market procurement is a liability and a wasted opportunity unless it is not put to its optimal use (Saksen, 1974:54).

Cash is the money, which a firm can disburse immediately without any restriction. The term cash includes coins, currency and cheques held by the firm and balance in its bank accounts (Pandey, 1999:911).

Cash is the important current asset for the operations of business. Cash is the basic input needed to keep the business running on a continuous basis; it is also the ultimate output expected by selling the service or product manufactured by the firm. The firm should keep sufficient cash, neither more nor less. Cash shortage will disrupt the firm's manufacturing operation while excessive cash will simply remain idle, without contributing anything towards the firm's profitability. Thus, a major function of the financial manager is to maintain a sound cash position.

2.1.2 Meaning of Cash Management

The term cash management is concerned with the management of current assets and current liabilities of the business, which is necessary for day-to-day operation. Cash management is concerned with the decision regarding the short-term funds influencing overall profitability and risk involving in the firm. The management of cash has been regarded as one of the conditioning factors in the decision-making issues. It is no doubt, very difficult to point out as to how much cash is needed by a particular company, but it is very essential to analyze and find out the solution to make an efficient use of funds for maximizing the risk of loss to attain profit objectives.

The term cash has a meaning according to the purpose for which it is used and persons with varying branches of knowledge conveying various meaning of the cash. According to economist, cash means to satisfy human wants. Like wise, from the viewpoint of layer, cash is the legal tenders money issued by a determinate authority. However, according to balance sheet, cash is an asset constituting the liquid item among all the assets. In need cash, which has a cost whether received internally through money procurement, is a liability and a wasted opportunity unless it is not put to its optional use (Saksena, 1974:54). So such whether cash a corporation has must be utilized efficiently to meet obligations of interest payment if cash is obtained from borrowing. If it is received through issue of share, 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 incurring loss (Shrestha, 1980:147).

Although it is impossible to formulate a set of assets management policies of universal applicability, one policy that appears to be accepted is that must be conserved. Cash is the most important current asset for the operation of the business. Cash is the basic input needed to keep the business running on a

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continuous bars, it is also the ultimate output expected to be realized by selling the service or product manufactured by the firm. The firm should keep sufficient cash neither more nor less. Cash shortage will affect the firms manufacturing operation, while excessive cash will remain idle without contributing anything towards the firm's profitability. Thus, a major function of the financial is to maintain a sound cash position. Cash is the money that a firm can disburse immediately without any restriction. The term cash includes coins, currency and check held by the firm, and balances in its bank accounts. Some time near cash items such as marketable securities or bank time deposits are also includes in cash (Pandey, 1999:912).

2.1.3 Principles of Cash Management

The size of cash balance in hand and in account to be maintained depends on the behaviour of operating cash flows of the firms. Each business operation is unique in the matter of cash collection and disbursement, as such, a firm needs to follow cash management strategies based on its own financial strength and objective in the matter of cash management. Financial manager are mainly concerned with the (a) Management of cash receipt, (b) management of disbursement, (c) minimization of cash balances, (d) use of most inexpensive source of financing for cash balance and (e) investment of excess balance of cash. The standard principles of cash management are follows:

- ⟩ To collect account receivable as soon as possible without annoying and loosing potential customers by establishing a system of lock boxes, electronic fund transfer, preauthorized checks, and deposit concentration.
- ⟩ To delay payment as long as permitted without damaging the firm's credit rating by establishing controlled disbursement system.
- ⟩ To minimize cash balance without adversely affecting the business operation by following the techniques of cash balance management such as Baumol & miller Orr-Models

) To manage most inexpensive source of financing for meeting short term cash deficiency by optimally balancing between cost and risk.

) To invest short term excess cash in most efficient market portfolios of securities such as some by market instruments (Pradhan, 1992:98).

2.1.4. Motives for Holding Cash

The term cash with reference to cash management is used in two senses. In a narrow sense, it is used broadly to cover currency and generally accepted equivalent of cash, such as cheques, draft and demand deposits in bank. The broad vie of cash is also includes near cash assets, such as marketable securities and time deposits in banks. The main characteristics of this are that they can be readily sold and converted in to cash. They serve as a reserve pool of liquidity that provides cash quickly when needed. They also provide a short term investment out let for excess cash are also useful for meeting planned out flow of fund. Irrespective of the firm in which it holds a distinguishing feature of cash, as an asset, is that it has no earning power. Cash does not earn any return, why it is hold? There are four primary motives of cash balance, these are:

2.1.4.1 Transaction Motive

This refers to holding of cash to meet routine cash requirement to finance the transaction which a firm carries in the ordinary course of business. A firm enters in to a variety of transaction to accomplish its objectives which have to pay for in the form of cash. The requirement of cash balance to meet routine cash needs is known as transaction motive and such motive refers to the holding of cash to meet anticipated obligation whose timing is not perfectly synchronized with cash receipt.

2.1.4.2 Precautionary Motive

The cash balance hold in reserves for random and unforeseen fluctuation in cash flows are called as precautionary balances. In other word precautionary motives of holding cash implies the need to hold cash to meet unpredictable obligation. Thus, precautionary cash balance serves to provide a cushion to meet unexpected contingences. The more unpredictable are the cash flows, the larger is the need for such balance. Another factor which has a bearing as the level of such cash balances is the availability of short term credit. If a firm borrows at short notice to pay for unforeseen obligation, it will need to maintain a relatively small balance and vice versa.

2.1.4.3 Speculative Motive

It refers to the desire of a firm to take advantage of opportunities which presents themselves at unexpected moments and which is typically outside the normal course of business. While the precautionary motive is defensive in nature in that firm must make provision to tide over unexpected contingencies, the speculative motive represents a positive and aggressive approach. The firm's aim to exploit profitable opportunities and keep cash in reserve to do so. The speculative motive helps to take advantages of:

⟩ An opportunity to purchase raw materials at a reduced price on payment of immediate cash.

⟩ A change to speculate on interest rate movement by buying securities when interest rates are expected to decline.

⟩ Delay purchases of raw materials on the anticipation of decline in prices , and

⟩ Make purchases at favorable prices.

2.1.4.4 Compensating Motive

It is to compensating banks for providing certain services and loans. Usually, clients are requested to maintain a minimum balance of cash at the bank since this

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balance cannot be utilized by the firm for transaction purpose; the banks themselves can use the amount to earn a return. Such balances are compensating balance. Compensating balance is also required by some loan arrangement between a bank and its customer. During periods when the supply of credit is restricted and interest rates are rising, banks require a borrower to maintain a minimum balance in his account as a condition precedent to the grant of loan. This is presumably to 'compensate' for a rise in the interest rate during the period when the loan will be pending. Of four primary motives of holding cash balances the two most important are transaction motive and the compensation motive. Business firm do not normally speculate and need not have speculate balances requirement of precautionary balances can be met out of short term borrowing (Khan and Jain 2003: 302-308).

2.1.5 Objective of Cash Management

The basic objective of cash management is to reconcile two mutually contradictory and conflicting tasks. They are:

2.1.5.1 Meeting Payment Schedule

In the normal course of business, firm have to make payments of cash as a continuous and regular basis to supplier of good, employees and so on. At the same time, there is constant inflow of cash though collection from debtors. Cash is therefore, aptly described as "oil to lubricate the ever turning wheels of business: without it the process grinds to a stop " a basic objective of cash management is to meet the payment, schedule, that is , to have sufficient cash to meet the cash disbursement needs of a firm.

2.1.5.2 Minimizing Funds Committed to Cash Balances

In minimizing the cash balances, two conflicting aspects have to be reconciled. A high level of cash balance will ensure prompt payment together with all the

advantages. But it also implies that large fund will remain idle, as cash is non earning assets and the firm will have to forgo profit. A low level of cash balances, on other hand, may mean failure to meet the payment schedule. The aim of cash management, therefore, should be to have an optimal amount of cash balances.

2.1.6 Efficiency of Cash Management

Cash performs a number of functions as it makes payment possible and serves to meet emergencies. But if cash is kept idle it contributes directly nothing to earning of corporation. As such, corporations must adopt such a policy that makes optimum cash management possible. The financial manager of the corporation should try to minimize the corporations holding of cash. The efficiency of cash management, effective method of collection and disbursement should be adopted (Shrestha, 1980:62). The method of efficiency of cash management are briefly described as below:

2.1.6.1. Speedy Collection of Usable Cash

When a customer writes and mails a cheque, this does not mean that the funds are immediately available to the receiving form (Weston and Copeland, 1992: 116). So, method of speeding collection of usable cash from customer payment of receivable should be used for optimization of cash management. This can be done through lock-box system, concentration banking and spinal handing of the movement of fund (Shrestha, 1980:67).

Concentration Banking

Concentration banking is a system of centralizing corporate cash in order to control the firm's fund and minimize the idle cash balances. Under this system a concentration bank is designated to receive funds from lock-boxes or any of subsidiaries depository banks wire transfer can be made automatically, according to instruction given by the firm the concentration bank reports available balances

daily. So, the firm's treasurer can take maximum advantages of investing opportunities. A second method of concentration banking employs a depository transfer cheque (DTC), which is non-negotiable demand deposit instrument used to transfer money from one bank account to another (Hampton, 1989: 125).

Special Handing of Cash

Special handling of cash enables corporations to have sufficient funds that can be put to profitable use. It is often found the some corporations open too many accounts in a bank and there by creating excessive idle fund in a bank. Such policy, no doubt, profitable in strengthening the degree of goodwill with bankers. Yet, they make little sense in the overall cash management of the corporations. Moreover, the corporations should give special attention to handling of large remittances with a view of get them quickly deposited in a backward undertake measures to pickup there cheques personally on the use of air mail and special delivery (Shrestha, 1980: 61)

2.1.6.2 Slowing Disbursement

A part from speedy collection of account receivable the operating cash requirement can be reduced by slow disbursement of account payable (Khan and Jain, 2003: 129). Quick collection and slow disbursement accomplish the corporation with adequate cash on hand for larger period. Effective control of disbursement can result in a faster turnover of cash (Shrestha, 1980: 69). The idea is to collect receivable as soon as possible, but pay account payable as late as it consistent with maintaining the firm's credit standing with suppliers (Van Horne, 2002). In other word, most firms desire to maintain reputations and good relation with suppliers by disbursing funds in timely and accurate fashion. At the same time, a disbursement system should have a low operating cost, provide a accurate management report and extend disbursement float where practical and reasonable (Hampton, 1989: 131).

Zero Balance Account Disbursing

A number of banks offer a zero balance account (ZBA) services that allow the writing of cheques against individual operating accounts containing no fund. The cheque clear through regular banking channels and are then presented for collection. At the close of business, the bank automatically transfer funds form the company's concentration of master account to the different operating account in order to return each operating account to zero balance (Hampton, 1989: 131).

Controlled Disbursing

In this method, checks are drawn on bank, in areas that do not receive frequent clearing service from the Federal Reserve. Firm is not tying up funds before the checks are presented for payment.

Electronic Fund Transfer

Transaction are recorded on magnetic tape and cleared directly through an automated clearinghouse. This will eliminate the need to print checks, will minimize float, and will significantly reduce proper work and related expense.

2.1.6.3 Cash Velocity

Efficiency in the use of cash depends upon the cash velocity i.e. level of cash over period of time. But the amount of sales is crucial factor that determines the cash velocity. The greater amount of sales the greater would be the additional cash necessary to conduct the higher scale of operation (Shrestha, 1980: 134).

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

2.1.6.4 Minimum Cash Balance

Corporations are required to keep a minimum cash balance requirement of bank either for services it renders or in consideration of lending arrangement. Every

bank calculates the average collected balances and account deems to be profitable if the total cost is less than total income. But in practice cash balance of the corporation with the banks is higher than cash in hand. It is because corporations always find it safe to keep large funds with bank otherwise it maybe misutilized or misappropriated if kept in hand (Shrestha, 1980: 72).

2.1.7 Factors Determining Cash Needs
2.1.7.1 Synchronization of Cash Flow

With a perfect synchronization of cash inflows and outflows and higher degree of predictability, cash balances could be held to low levels. An example of synchronization demonstrates low cash flows can be improved through more frequently requisitioning of fund to divisional offices from the firm's central office. If funds are requisitioned once a month, we may now explore the possibility of requisitioning of funds on fortnightly, or weekly or daily. Moreover, effective forecasting can be achieved. It will enable the firm to economic on the amount of money it must borrow and thereby keeping interest expenses to a minimum. It is necessary to understand now that there are different types of float. We have seen that the float is different between book cash and bank cash, representing the net effect of changes in process of clarity. The first type of float is disbursement float. As we write check, it declares book balance but doesn't immediately change available balance. Similarly the collection float refers to the result of cheque available balance. The net float is the overall difference between the firm's available and its book balance (Pradhan, 2004: 66).

2.1.7.2 Short Cost

Another general factor to be considered in determining cash need is the cost associated with a short fall in the cash needs. The cash forecast presented in the cash budget would reveal periods of cash shortages. In addition, there may be some unexpected short fall. Every shortage of cash whether expected or

unexpected involves a coast 'depending' upon the severity, duration and frequency of the shortfall and how the shortage is covered. Expenses, incurred as a result of shortfall are called short costs. Included in the short cost are the following:

- Transaction cost associated with raising cash to tide over the shortage. This is usually the brokerage incurred in relation to the sale of some short term near cash assets such as marketable securities
- Borrowing cost associated with borrowing to cover the shortage include items such as interest on loans, commitment large and other expenses relating to the loan.
- Loss of cash discount, that is, a substantial loss because of temporary shortage of cash.
- Cost associated with deterioration of the credit rating which reflected a higher bank charges on loans, stoppages of suppliers, demand for cash payments, refusal to sale, loss of image and the attendant decline in sales and profits.
- Penalty rates by bank to meet a shortfall in compensating balanced (Khan and Jain, 2003: 112).

2.1.7.3 Excess Cash Balance Cost

The cost of having excessively large cash balance is known as the excessive cash balance cost. If large funds are idle, the implication is that the firm has missed opportunities to invest those funds and has thereby lost interest which it would otherwise have earned. This loss of interest is primarily the excess cost.

2.1.7.4 Procurement and Management

There are the cost associated with the establishing and operating cash management staff and activities. They are generally fixed and are mainly accounted for by salary, shortage, handling of securities and so on.

2.1.7.5 Uncertainty and Cash Management

Finally, the impact of uncertainty of cash management strategy is also relevant on cash flows cannot be predicted with complete accuracy. The first requirement is a precautionary cushion to cope with irregularities in cash flows, unexpected delays in collections and disbursements, default and unexpected cash needs. The impact of uncertainty on cash management can, however, be mitigate through

a. improved forecasting of tax payments, capital expenditure, dividend, and so on and

b. Increased ability to borrow though over draft facility.

2.1.8 Different Techniques of Cash Management

I. Cash Planning

Cash planning can help anticipate future cash flows and needs of the firm and reduces the possibility of idle cash balance and cash deficits. Cash Planning is a technique to plan for and control the use of cash (Pandey; 1999:483). Therefore, costs may be based on the present operations or anticipated future operation. Cash plans are very crucial in developing the overall operating plans of the firm. Cash planning may be done on daily, weekly or monthly basis. It depends upon the size of the firm and philosophy of management.

II. Cash Forecasting and Budgeting

Cash budget is the most significant device to plan for and control cash receipts and payment. A cash budget is a summary statement of the firms expected cash inflows and outflows over a projected time period. Cash forecast are needed to prepare cash budget. Generally forecasts covering period of one year or less are considered as short term forecast. The important functions of carefully developed as short term forecast are to: (a) determine operating cash requirement (b) anticipate short term financing and (c) manage investment surplus cash. Methods of short term forecasts are:

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﹚ Receipt and Disbursement Method

The prime aim of receipt and disbursement forecast is to summarize these flows during predetermined period. In case of these companies where each items of income and expenses involve flows of cash; this method is favoured to keep a close control over cash (Pandey, 1999: 116).

﹚ Adjusted Net Income Method

This method of cash forecasting involves the tracing of working capital flows. It is same time called the sources and uses approach. There are two objectives of the adjusted net income method. They are to project company's need for cash at a future data and to show whether the company can generate the required fund internally, and if not how much will have to be borrowed or raised in the capital market. One popular used method of projecting working capital is to use ratios relating account receivable and inventory to sales (Pandey, 1999: 116).

﹚ Sensitivity Analysis

One useful method of getting insights about the variability of cash flow is sensitivity analysis. Cash budget can be prepared under three sales conditions they are optimistic, most probable and pessimistic. Knowledge of the outcome of extreme expectation will help the firm to be prepared with contingency plans. A cash budget prepared under worst condition will prove to be useful to management to face these circumstances (Pandey, 1999: 117).

﹚ Long-Term Cash Forecasting

Forecasts, these extending beyond one year are considered long-term. Once a company has developed long-term cash forecast, it can be used to evaluate the impact of say, new product development or plant acquisition on the firm's financial condition three five or more years in the future. The major uses of long-term forecasts are:

- To indicate as company's future financial needs especially for its working capital requirement.
- To evaluate proposed capital projects. It pinpoints the cash required to finance these project as well as the cash to be generated by the company to support them.
- To improve corporate planning. Long-term cash forecast compel each division to plan for future and no formulated project carefully *(*Pandey, 1999: 118).

III.   Managing the Cash Flows

The flow of cash should ne properly managed the cash inflows should ne accelerated while, as far as possible, the cash out flow should be declared.

IV.   Optimum Cash Level

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

### V.   Investing Surplus Cash

The surplus cash balance should be properly invested to earn profits. The firm should decide about the decision of such cash between alternative short term investment opportunities such as bank deposits, marketable securities, or incorporate landing. The firm needs cash to purchase raw materials and pay wages and other expenses as well as for paying dividend, interest and taxes. There test of liquidity is the availability of cash to meet the firm's obligation when they become due. In other word firm require cash for various purpose, our or total requirement, how much to maintain in cash and how much in marketable securities is the question which needs a careful analysis of behavior of cash inflows and outflows may not synchronize all the time, the cash balance often fluctuates, and as a result,

the balance could be sometime more and other time less than necessary. It is, therefore, necessary to adopt a system to correct such fluctuation and ,maintain an optimal balance at al time. If the firm keeps high cash balance, it will have a strong liquidity but its profitability will be low. The potential profit forgone as holding large cash balance is an opportunity cost to the firm the firm should maintain optimum cash balance.

2.1.9 Determining the Optimum Cash Balance

The firm needs cash to purchase raw materials and pay wages and other expenses as well as for paying dividend, interest and taxes. The test of liquidity is the availability of cash to meet the firm's obligation when they become due. In other words, firm require cash for various purpose, out of total requirement, how much to maintain in cash and how much in marketable securities is the question which needs a careful analysis of behaviour of cash inflows and outflows. Since cash inflows and outflows may not synchronize all the cash balance often fluctuates and as a result, the balance could be sometimes and other time less than necessary. It is therefore, necessary to adopt a system to correct such fluctuation and maintain an optimal balance at all time. If the firm keeps high cash balance, it will have a strong liquidity but its profitability will be low. The potential profit forgone as holding large cash balance is an opportunity cost to the firm. The firm should maintain optimum cash balance. The potential lost on holding large cash balance involves an opportunity cost of the firm. Thus, the firm should maintain an optimum cash balance, neither a small nor a large cash balance to find out the optimum cash balance, the transaction costs and risk too small a balance sound with the opportunity cost of too large a balance. It can be shown by following graphs.

Figure 2.1

Cash Balance

Cost

Total Cost

Opportunity Cost

Optimum Cash

Transaction Cost
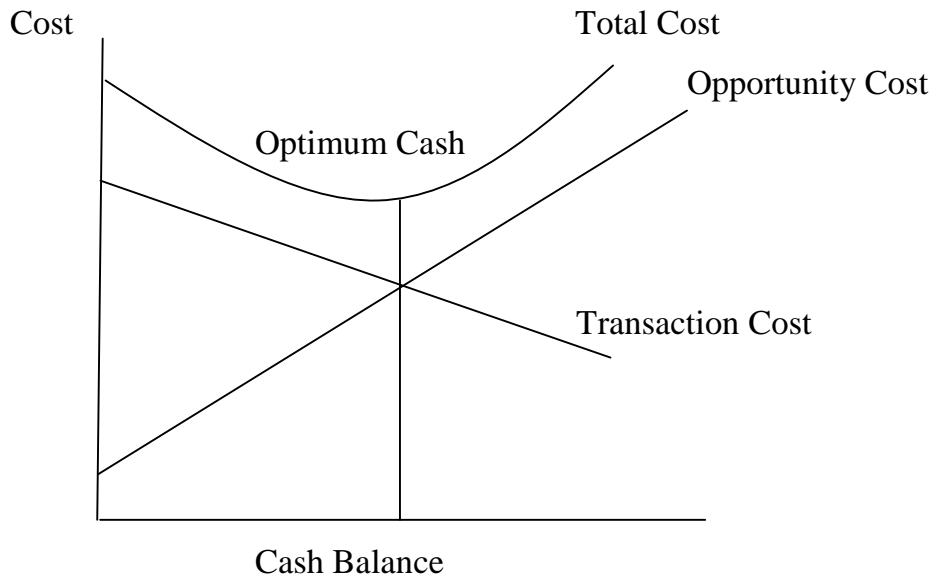
Cash Balance

(Source: Pandey, 1999:119)

If the firm maintains large cash balances its transaction cost would decline, but the opportunity cost would increase. At point x the sum of the two costs is minimum. This is the point of optimum cash balance which a firm should seek to achieve, where is to minimize the total costs.

The models for maintaining optimum cash balance are described below.

2.1.9.1. Baumol's Model (1952)

This model developed by william Boumol, essentially applies a basic inventory modelto determine the minimum cost amount of cash that a financial manager can obtain byconverting securities to cash, considering the cost of conversion and the counter balancing cost of keeping idle cash balance which otherwise could have been invested in marketable securities. The total cost associated with cash management, according to this model, has two events. They are (i) cost converting

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marketable securities into cash and (ii) Cost of opportunity cost. As such the firm attempts to minimize the cost of holding cash. The conversion costs are incurred each time marketable securities are converted into cash.

Symbolically,

Total Conversion Cost for Period =

Where,

  B = Cost per conversion assumed to be independent of the transaction.

  T = Total transaction cost needs for period.

  C = Value of Marketable Securities sold at each conversion.

The opportunity cost is derived from the cost / for failed interest rate (i) that could have been entered on the investment of cash balances. Total opportunity cost in the interest rate times the average cash balance kept by the firm. The model assumes as constant and certain pattern of cash out flows. At the beginning of cash period, the firm starts with until at the end of the period it has a zero cash balance and must replenish its each supply to the level of cash balance in the beginning, which is shown graphically as:

Figure 2.2

Baumol Models for Optimum Cash Balance
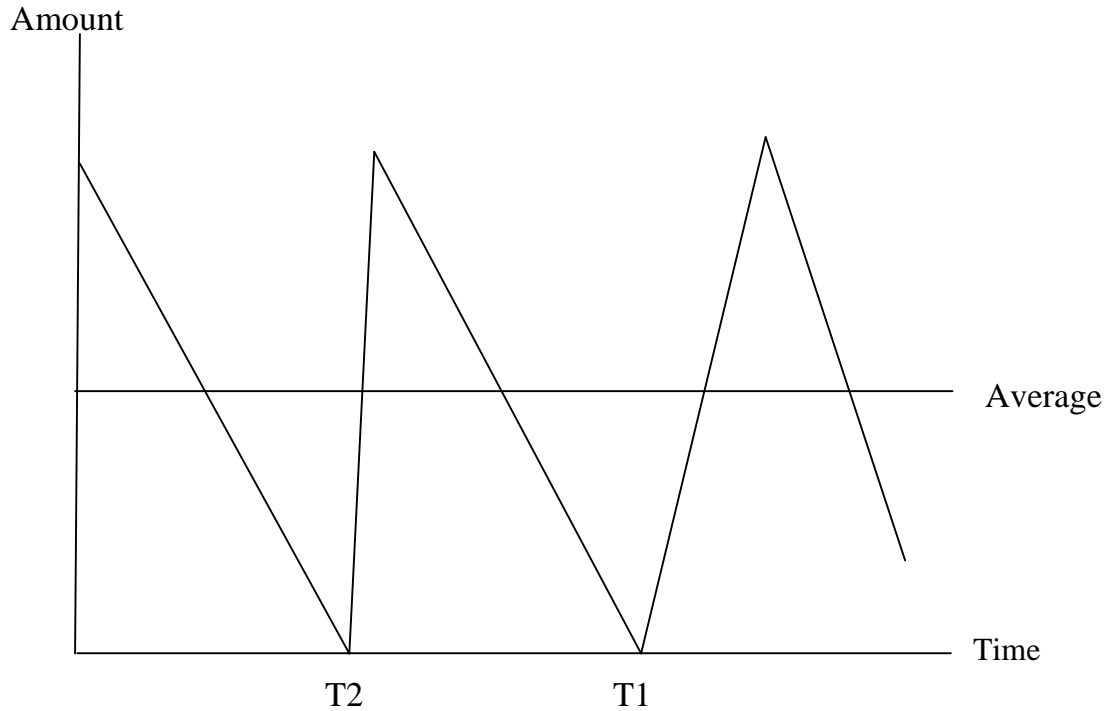
(Source: Pandey, 1999: 127)

Mathematically,

a) $C* \dfrac{2BT}{I}$

Where,

       $C*$ = the optimal size of the cash transfer

       T= Total cash uses wage for the period of time involved

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

       I= the applicable interest rate on marketable securities

b) Average cash balance= $C*/2$

c) Number of optimal transfer =$T/C*$

d) Total annual cost of maintaining an optimal cash balance.=$T/C*$x B+ $C*/2$XI

In sum, the Baumol model of cash management is very simplistic further; its assumptions of certainty and regularity of withdrawal of cash do not realistically reflect the actual situation in any firm. Also the model is concerned only with the transaction balance and not with precautionary balances. In addition, the assumed of cash withdrawal is not also realistic. Nevertheless, the model does clearly and concisely demonstrate the economics of scale and the counteracting nature of the conversion and opportunity costs which are undoubtedly major consideration in any financial manager's cash management strategy.

2.1.9.2. Miller-Orr Model (1966)

According to Miller Orr, The objective of cash management is to determine the optimum cash balance level, which minimize the cost of cash management. It assumes that net cash flows are normally distributed with a zero value of mean and a standard deviation, each firms cash flows fluctuate randomly and hit the upper control limit, and then it buys sufficient marketable securities to come back a normal level of cash balance. Similarly, when the firm's cash flows wander and hit the lower limit, it sells sufficient marketable securities to bring cash balance back to the normal level. Graphically

Figure 2.3
Miller-Orr Model of Optimum Cash Management
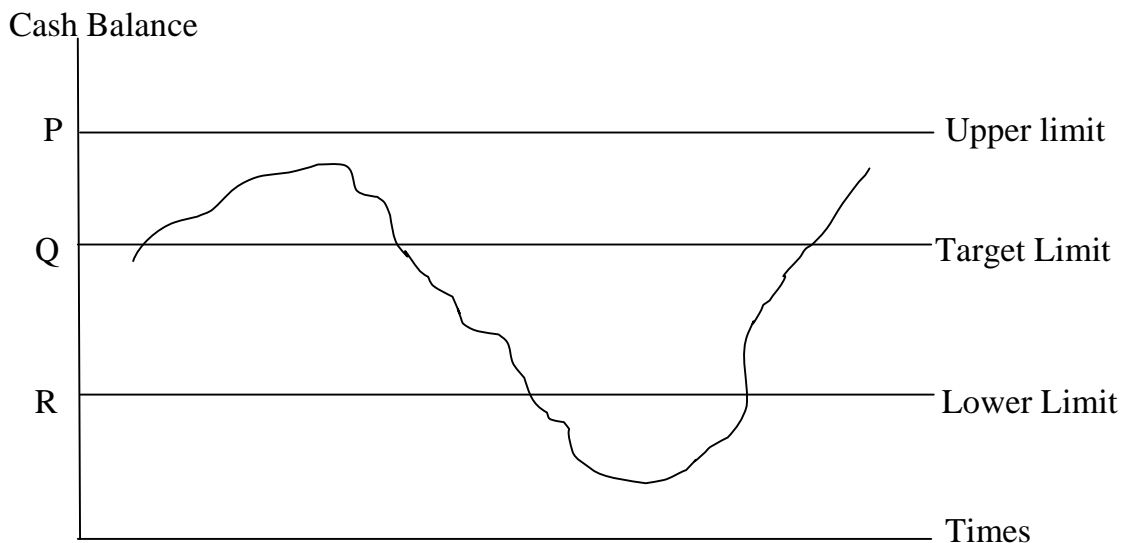
According to Miller-Orr model the optimal cash balance (z) can be expressed symbolically as:

$$z = \sqrt{\frac{3\,br^2}{4i}}$$

Where, r2 = the variance of daily changes in cash balance. Miller-Orr model also specifies the optimum upper boundary (u) as:

U= Lower Limit + 3z

Similarly, return point,

R = Lower Limit + z

If lower limit is zero,

Upper limit is three times of optimum level of cash and return point is equal to the optimal level of cash.

Further, the financial manager could consider the use of less liquid, potentially more profitable securities on investment for the cash balance in excess of "U"

2.1.9.3. Orgler's Model (1970)

According to this model, an optimum cash balance management strategy can be determined though the use of multiple linear programming models the construction of the model comprises three sectors. They are (i) selection of appropriate planning horizon, (ii) selection of appropriate decision variable and (iii) formulation of cash management strategy itself. The advantage of linear programming model is that it enables coordination of optimum cash management strategy with the other operation of the firm such as production and with less restriction on working capital balance.

Orgler's objective function is to minimize the horizon value of the net revenues from the cash budget over the entire planning period. The objective function recognizes each operation of the firm that generates cash inflows or outflows on adding or subtracting profit opportunities for the firm from its cash management operation. In the objection functions, decision variables which cause inflows, such payments on receivable, have positive coefficient while decision variables which generate cash inflows, such as interest and short tem borrowing have negative coefficient. The formulation of the model requires that the financial mangers first specify an objective function and then specify a set of constraint.

The constraint of the model could be (i) institutional or (ii) policy constraint. The institutional constraints are those imposed by external factor, that is, bank required compensating balance. Policy constraints are imposed on cash management by the firm itself. For instance, the financial manager may be prohibited from selling securities before maturity either constraint can occur in the model during one monthly period or over several or all the month in one year planning horizon.

Examples of linear programming model are as follows:

Objective Function:

Maximize profit: $a_1X_1 + a_2X_2$

$b_1 X_1$ Production

$b_2 X_2$ constraint

$c_1X_1+c_2X_2$ cash available constraint

$d_1X_1 + d_1X_2 >$ current assets requirement constraint

$X_1>0 =1$, in non negatively constraint.

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

2.1.9.4. Monte Carlo Simulation

Although the Boumol model and other theoretical models provides insights into the optimum cash balance, they are generally not practical for use , rather firms generally set their target cash balances based as some " Safety stock " of cash that holds the risk of running out of money to some acceptability low level. One commonly used procedure is Monte Carlo Simulation. Sales and collection are the driving forces in cash budget and of course, are subjects to uncertainty; in the cash budget we need expected values for sales and collection as well as for other cash flows. However, it would be relatively easy to Monte Carlo Simulation to introduce uncertainty. If cash budget is constructed using a spreadsheet program with Monte Carlo add in software, then the key uncertain variables could be specified as continuous probability distributions rather than point value.

2.1.10. Advantage of Adequate Cash

The following are major advantage of adequate cash:
- To take trade discount
- To maintain credit worthiness
- To take advantage of favorable investment opportunities
- To meet emergencies
- To facilities smooth operation of business.

### 2.1.11 Basic Strategies for Cash Management

The cash budget, as a cash management tool, would throw light on the net cash position. The management should work out the basic strategies to be employed to manage its cash.

2.1.11.1 Cash Cycle

The financial needs of the corporations are affected by the details of the cash cycle involved in the process of conversion from purchase, production and sales to ultimate collection. Opportunities to improve cash cycle help to best management of cash. The cash cycle of the corporate is as follows (Shrestha, 1980:225).

Figure 2.4

Details of cash Cycle
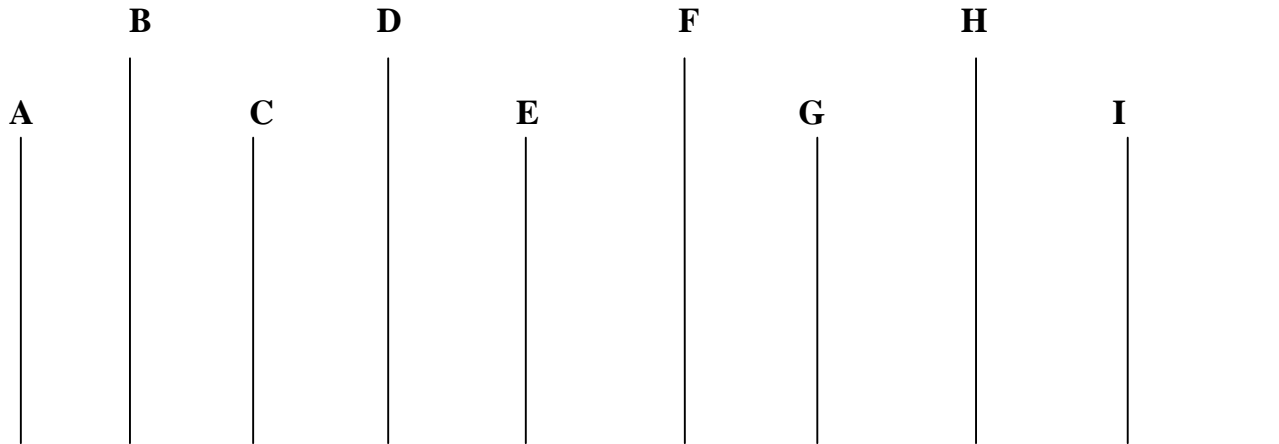
(Source: Shrestha, 1982: 226)

Where,

    A = Material ordered

    B = Material received

    C = Payments

    D = Check clearance

    E = Good sold

    F = Customer mails payment

    G = Payment received

    H = Check deposited

    I = Funds collected

In addressing the issue of cash management strategies, we are concerned with time period involved in strategies ADCD & FGHI. A firm has no control over time involved between stage A & B. The lag between D & E is determined by the

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production process and inventory policy. The time period between stage E and F is determined by credit terms and payment policy of customers.

2.1.11.2 Minimum Operating Cash

The higher the cash turnover, the less is the cash a firm requires. A firm should, therefore try to maximize cash turnover. But it must maintain a minimum amount of operating cash balance so that it doesn't run out of cash. The minimum level of operating cash is determined by dividing the total operating annual outlays by the cash turnover rate. Cash management strategies are intended to minimize the operating cash requirement. The basic strategies that can be employed to do the needful are as follows:

Stretching Account Payable

One basic strategy of efficient cash management is to stretch the account payable. In other words, a firm should pay its account payable as late as possible without damaging its credit standing. It should, however take advantages of cash discount available on payments.

Efficient Inventory, Production Management

This strategy is to increase the inventory turnover ratio, avoiding a stock out that is shortage of stock. This can be done in following ways:

- Increasing the raw material turnover by using more efficient inventory control techniques.
- Decreasing production cycle through better production planning, scheduling and control techniques; it will lead to an increase in the work-in-progress inventory turnover.
- Increasing finished good turnover through better forecasting of demand and a better planning of production.

Efficient inventory and production management cause a decline in operating cash requirement and, hence, a saving in cash operating cost.

Speeding Collection of Account Receivable

Combined Cash Management Strategies

We spell out the implication of these strategies to minimum cash balance and the associated cost with the underlying assumption that a firm should adopt such cash management strategies as will lead to the minimizing of to operating cash requirement in other words efficient cash management implies minimum cash balances consistent with the need to pay wills when they become due (Khan & Jain, 2003: 352).

2.1.12 Cash Conversion Cycle

The cash conversion cycle model diagrams the length of time between when the company makes payments and when it receives cash. The following terms are used in the model.

) Inventory conversion period

) Receivable collection period

) Payable deferral period

The cash conversion cycle net outs these three periods and thus equals the length of time between the firm's actual expenditures for productive resource and its own cash receipts from the sale of products. The cash conversion cycle equals the average length of time a dollar is tied up in current assets.

$$CCC = ICP + RCP - PDP$$

Where,

CCC = Cash conversion cycle

ICP = Inventory conversion period

RCP= Receivable conversion period

PDP = Payable deferral Period

The cash conversion cycle can be shortened 1) If the firm can reduce the inventory conversion period by processing and selling goods quickly, 2) if it can reduces the receivable collection period by speeding up collection 3) If it can lengthen the payable deferral period by showing down its payment. To take extents that these actions can be taken without increasing cost of depressing pales they should carried out.

2.1.13 Definition of Key Terms Used in Research

To avoid ambiguity, confusion and misunderstand, the key term are used in these studies which are defined as follows:

a. Sales

Sales include only trading sales and ignore miscellaneous sales.

b. Average Collection Period

The average collection period/receivable collection period, which is the average length of time required to convert receivables in to cash that is, to collect cash following a sale, is calculated by dividing account receivable by the average credit sales per day (Brigham and Friends, 20001: 201).

Symbolically,

Average Collection Period = $\dfrac{\text{eivable}}{\text{ales}}$

c. Payable Deferral Period

Payable deferral period concerns with the payment of cash of credit purchase. It can be calculated by dividing account payable by average cost of goods and per day.

Symbolically,

Payable Deferral Period $\frac{\text{Account Payable}}{\text{Cost of Goods Sold}}$ 360

d. Account Receivables to Cash Balance

It is an indicator of the liquidity of cash. It measures the relationship between cash and volume of account receivable period or time.
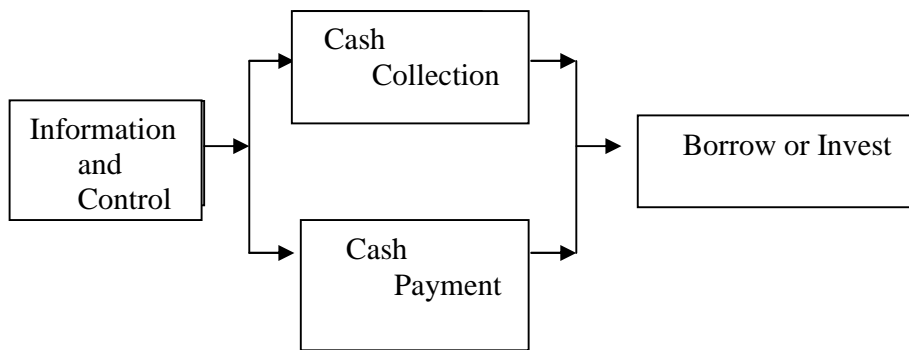
Account Receivables to Cash Balance $= \frac{\text{Cost + Balance}}{\text{Account Receivable}}$

2.2 View of Different Authors Regarding Cash Management

Various scholars as well as authors have given different views regarding cash management some of them are as follows:

Pandey (**1993**) suggested that the firm should keep sufficient cash neither more nor less. Cash shortage will disrupt the firms manufacturing operations while excessive cash will simply remain idle, without contributing anything toward, the firms profitability. According to him, the main function of financial manager is to maintain sound cash position. Some theoretical insights about cash management has presented by him. He said that cash management is concerned with the managing i) cash flows into and out of the firm ii) cash flows into and within the firm and iii) cash balance hold by firm at point of time by financing deficit or investing surplus cash. It can be represented by a cash management cycle. Sales generate cash, which has to disburse out. The surplus cash has to be invested while deficit has to be borrowed. Cash management seeks to achieve liquidity and

control. Cash management assumes more important than other current assets because cash is the most significant and the least productive asset that a firm holds. It is significant because it is used to pay the firm's obligation. However cash is unproductive. Unlike, fixed assets or inventories it does not produce goods for sale. Therefore, the aim of cash management is to maintain adequate control over cash portion to keep the firm sufficiently liquid and to use excess cash in some profitable way. The cash management cycle is shown as follows:

```
                        ┌──────────────┐
                        │ Cash         │
                   ┌───►│   Collection │───┐
                   │    └──────────────┘   │
┌──────────────┐   │                       │    ┌──────────────────┐
│ Information   │   │                       └───►│ Borrow or Invest │
│ and          │──►│                       ┌───►└──────────────────┘
│ Control      │   │    ┌──────────────┐   │
└──────────────┘   │    │ Cash         │   │
                   └───►│   Payment    │───┘
                        │              │
                        └──────────────┘
```

The management of cash is also important because it is difficult to predict cash flows accurately, particularly the inflows, and there is no perfect coincidence between inflows and an outflow of cash. During some period cash outflows will exceed cash inflows because payment of taxes, dividend or seasonal inventory builds up. At other times, cash inflows will be more than cash payment because there may be large cash sales and debtors may be realized in large sums promptly. Cash management is also important because cash constitutes the smallest portion of the total current assets. Yet management's considerable time is devoted in managing it. In recent past, a number of innovations have been done in cash management its techniques. An obvious aim of the firm now-a-days is to manage its cash affairs in such a way as to keep cash balance at a minimum level and to invest the surplus cash in profitable investment opportunities.

Jain and Narang (**1993**) have described about cash management. He said that cash is crucial component of working capital of a concern. Cash like blood stream of human body, gives strength to human body, gives strength to business unit. He

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

Batty (**1972**) cash in only none constituent t of what is essentially a combination of business resources. It is the part of working capital and as such provides the means of earning of a profit investment for useless. The objective should aim to obtain an optimum level for each component of current assets figure and a smooth and rapid conversion of these asses to cash both of these lead to on prove earning power he again suggested that if cave is taken for crash program me for improving cash may have unexpected consequences. In the short term it will be possible to cut back expenditure on marketing and other functions, but future sales will probably suffer and, consequently, there will be further detritions in cash flow further he defined cash management as the process involved in the effective planning and control of cash requirements of a business.

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Simons and Kerrenbrock (**1964**) expressed that cash is more after than other assets, is the item involved in business traction. This is due to nature of business transactions, which include a price and condition calling for settlement in terms of medium of exchange. In striking constant to activity of cash is unproductive in nature. Some cash is measured of values it cannot expose to grow unless it is converted into other properties. Excessive balance of cash on hand is often referred to as 'idle cash'. To be most useful to business enterprise, cash must be kept moving.

Khan and Jain (**2003**) explained that cash management link aged both working capital management. He expressed that cash management id one part of the key areas of working capital management. A part from the fact that is the most liquid current asset, cash is the common denominator or which all current assets can hoe reduced because the other major liquid assets, that is. Receivables and inventories get eventually converted into cash. This underlines the significance of management. He presented a detail account of the problem involved in managing cash, i.e., and motive for holding cash , objective of cash management, factors determining cash needs, cash management models , cash budgets, basic strategies fir efficient management of cash, and specific techniques to manage cash subsequently.

Hampton (**1989**) has given more suggestion for effective management of cash. He explained that net working capital is the adequacy of near term cash to meet the firm's obligation. The highly liquid firm has sufficient cash to pay its bills at all time. An illiquid firm is unable to pay its bills when due. The investment of excess cash, minimizing of inventory, speedy collection of receivables, and elimination of unnecessary and costly short term financing all contribute to maximizing the value of firm. In a period of high interest rate customer may be slow in paying their bills

a face that will be cause an increase in the level of sales, variable working capital may be changed.

Shrestha (**1980**) has described some conceptual ingredients about cash management, which is based on his various research studies. We can learn lesson from it and also helpful for this study indeed. He adjusted the relation of cash with sufficient and insufficient corporations. Cash shortage is dangerous for efficient corporation as for inefficient corporations. It does not matter whether cash inverses or devices of they are not in position to utilize them, but efficient corporations due to undertaking of more operations need more cash besides having profit.

Weston and Bringham (**1978**) have poured some views about cash management after their various studies on it. The bond conceptual finding of their studies provides sound knowledge and guidelines for the future studies in the field of cash management. They explained in the beginning the motives for holding cash, specific advantage of adequate cash synchronization of cash flows, explaining collection and check clearing using float, coat of cash management, determining minimum cash balance, compensating balance, marketable securities. Substitutes for cash criteria for setting securities investment alternatives.

Bringham, et. al., (**2001**) Have described some conceptual insights, which are be based on various research studies. They believed that cash is offered called "non-earning assets". It is needed to pay for labor and row material to buy fixed assets to pay taxes to survive debt to pay dividend and so on. However, cash itself earn no interest. Thus the goals of the cash managers are to minimize the amount of cash. The firm must hold for use in conduction its normal business activities. Yet, the same time, to have sufficient cash

  i) To take trade discount

ii) To maintain its credit rating, and

iii) To meet unexpected cash needs.

Weston & Copeland (**1992**) suggested about cash management firm various study and research. They said that relatively high level of interest rates have increased the importance of cash management, while, at same time advances' in technology have changed the mature of cash management function . Financial manager have developed new techniques for optimizing cash balance and determining the appropriate relation between holding cash & holding investments in marketable securities.

Pradhan (**2004**) explained about cash and it management. He told that cash includes coins, currencies, cheque hold but a firm, and balances in its bank account. This money is immediately useable to pay bills. Some times "hear cash items" are also includes in cash, e g, marketable securities. . if the firm has excess cash, it may decide to convert it to short term investments . The financial manager will purchase low risk, high liquidity money market instruments that can he converted aback to cash without delay if the has been arise. The securities provide a small profit on cash that may not be needed immediately for the firm's operation. These securities are widely used as short term investment by the firm in developed countries. Each security offers different characteristics that make it suitable for different firms. He said cash management is also called management of money position because cash includes not only the cash or currency in hand but also the easily convertible securities or other neat cash items. E.g. time and demand deposits, readily available credit and so on. According to him concerning area of cash management are:

-) Management of cash flows into and out of the firms.
-) Management of cash flow within the firm
-) Management of cash balance held by the firm at a point of time

2.3 Review of Previous Research Work

In this section of the review of theses relating to cash management have been made.

Bajracharya, (1990), conducted a study called *"Cash Management in Nepalese Public Enterprises"* by using eleven years data from 1977 to 1987. The objectives of his study are as follows;

His main objectives:

⟩ To critically review cash management techniques practiced by Nepalese Public Enterprise,

⟩ To examine the demand for cash in the case of Nepalese Public Enterprises.

⟩ To suggest appropriate cash management policy for the future.

Out of different objectives, is "to critically review the cash management techniques practiced by Nepalese public enterprises" was main objective of the study.

His major findings;

⟩ Cash management in the public enterprises of Nepal is primarily based on the traditional practices, lacking in a scientific approach. A more serious aspect of cash management has been the absence of any formalized system of cash planning and cash budgeting in many of the enterprises do have the practice forecasting cash requirements on a formal basis.

⟩ Modern practices with respect to debt collection, monitoring the payment behavior of customers and relevant banking arrangements in connection with collection of receivables have been virtually ignored in many enterprises.

〕 His survey revealed that majority of the enterprises didn't face any serious liquidity problem. However, this was not because of the effectiveness of cash planning and budgeting. The problem of liquidity actually didn't arise due to the coincidence of delay in receivables collection being matched by delayed payment to creditors,

〕 By and large most enterprises had periodic accumulation of surplus cash and corresponding cash shortage from time to time. However, none of the enterprises considered the implications of holding idle cash balance and few took into account the potential benefit of investing surplus in marketable securities. Those which did failed to consider the cost of administering such investments,

〕 There has been wide variations overtime in the state of financial health of the enterprises in terms of the composition of current assets and current liabilities as revealed by the relevant financial ratios.

〕 Regression analysis revealed that there was little effect of the opportunity cost of holding cash on the cash balances held by the enterprises. Neither interest rate nor the rate of inflation had any effect on the cash balance. Further there was very little evidence of the effect of economy of scale on cash balance holding in most cases.

Dhakal (**2007**)**,** in his study on "*Cash Management of Nepalese Joint Venture Banks in Nepal.''* His main objectives:

〕 To critically review cash management techniques practice by Nepalese joint Venture banks.

〕 To examine the demand for cash in the case of Nepalese joint venture banks.

〕 To present overall cash management picture of selected joint venture banks in Nepal

〕 To analyze the cash flow structure

His major findings*:*

ʃ The growth trend of cash hiding shows variation among selected commercial banks.

ʃ Almost all the commercial banks have negative growth for some years. Though many of them had very high positive growth for some years. This shows that the level of cash balance is changing during the study period.

ʃ There is no any fixed growth trend for any listed banks.

Karki (2008), in his study on *"Cash Management in Listed Manufacturing Companies in Nepal"* had the following objectives:

ʃ To examine and critically analysis the cash management practices in listed manufacturing companies.

ʃ To identify the liquidity position of the companies.

ʃ To Study the relationship of cash with other influencing aspects of cash management whether it is significant or not.

ʃ To analyze cash conversion cycle of the companies.

ʃ To provide necessary recommendation for improvement of cash management on the basis of analysis.

His Major Findings:

ʃ Listed manufacturing companies don't have any definite policy regarding how much cash balance to hold in each period. Cash and bank balance to hold each period. Cash and bank balance held during different period of study were observed to be highly fluctuated and thus the fact indicates the firm to be lacking definite policy regarding how much of cash balance to hold each period.

- Cash turnover ratio: As a fact the higher cash turnover ratio of cash indicates the sound liquidity position of company and vice-versa.
- Listed manufacturing companies have failed to maintain adequate proportion of cash on its current assets.
- Companies have not been precisely meeting their current liabilities payment.
- Listed companies seem not able to maintain the adequate proportion of cash in total assets.
- Relationship of cash on receivable and payable has found to be a significant level.

Pandey (2008), in his study on *"A Study of Cash Management to Diary Development Corporation* (*DDC*)*"* had the following objectives:

- To examine the cash management practice in DDC.
- To examine the liquidity position of the DDC.
- To study the relationship of cash with other influencing variables of cash management.
- To recommend variable suggestion based on analysis to improve the existing cash management for the days to come.

His major findings:

- DDC does not have any definite policy regarding how much cash balance to hold in each period. Cash and bank balance hold during the deferent period of study were observed to be highly fluctuated and thus the fact indicates the definite policy regarding how much of each balance to be hold each period.
- Erratic fluctuations have been observed in cash turnover ratio analysis.
- The correlation analysis indicates that corporation has been significantly maintaining its current liabilities. In other words, current assets are being significantly increased with increase in current liabilities and vice versa.

) Analysis shows that poor performance regarding current liabilities of DDC. High CV indicates the poor condition of the firm and lower CV indicates the favorable to meet good policy.

Research Gap

These studies were not able to represent overall status of the companies. So that, the effort has been made on the study of cash management in Nepalese manufacturing companies with taking 1 company as a sample. Identification of cash conversion cycle is the uniqueness of the study.

Although there may have been several research works on the manufacturing companies. This study is mainly concerned with performance appraisal of Bottlers Nepal Ltd. This study is different from others is that it deals with the performance of one Nepalese manufacturing company.

In this work data have been updated till 2008/09 and statistical tools like correlation, probable errors are used, Which are not used as statistical tools in previous studies.

Finally, the study of cash management in manufacturing companies has been done. So that the researcher has chosen this topic (A Study of Cash Management in Nepalese Manufacturing Company: A Study of Bottlers Nepal Limited (Terai).

All researchers were concentrated on liquidity position of listed manufacturing companies in Nepal. But researcher wants to give more emphasis on other influencing factors for cash such as cash conversion, cash conversion cycle i.e. account receivable conversion period plus inventory conversion period minus

account deferral period. So the researcher is going to fulfill the gap previous studies.

CHAPTER -III
RESEARCH METHODOLOGY

3.1 Introduction

Research Methodology is a sequential procedure and collection scientific methods to be adopted in a systematic study. In other word research methodology describes the methods and process applied in the entire aspects of the entire aspects of the study. It may be understood as a science of study how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in study his/her research problem long with the logic behind them (Kothari, 1984:10). research design, nature and sources of data, collection of data procedure, data processing and statistical tools used etc. are included in this chapter.

3.2 Research Design

Research design includes important procedure and techniques for guiding analyzing and evaluating the study this study is based on description and analytical research design, collected data and information's form Bottlers Nepal limited (Terai) for six years have been analyzed and interpreted.

3.3 Nature and Sources of Data

Only secondary data are collected for the study. Financial statement, such as balance sheet and profit sheet and profit and loss account of the companies are major source of data.

The major sources of information collections are as follows:

) Annual reports of related companies and security board of Nepal.

) Financial statistics of listed companies, published by security board of Nepal.

) Journals, government and non-government publication other supportive books a mostly.

) Website of the companies.

) Other related published and unpublished documents.

3.4 Methods of Data Analysis

Only financial and statistical tools are used for the analysis of data which is already stated in the limitation of the study. The producers of analyzing data are described as follows:

a. Financial Tools

b. Statistical Tools

3.4.1 Financial Tools and Techniques

The focus of financial analysis is on key figures in the financial statements and the significant relationship that exist between them. The analysis of financial statements is a process of evaluating the relationship between component parts of financial statements to obtain a better understanding the firm's position and performance. Financial analysis is the process of selection, relation and evolution.

A) Ratio Analysis

Ratio analysis is a widely used tool of financial analysis. The ratio reveals the relationship in a mire meaningful way so as to enable one to draw conclusion from

it. As the case study of cash management involves ratio analysis for tudging operational efficiency, the rate of return on total assets and capital employed and activity, efficiency ratio would be particularly meaningful for management and investing, although there is no hard and fast rule.

a. Analysis of Cash Turnover

This ratio indicates the number of times average cash balance is turned over during the year. It is computed as follows:

$$\text{Cash Turnover} = \frac{\text{Sales}}{\text{a in Hand or Bank}}$$

It measures the speed with which cash moves through as enterprise's operation.

b. Account Receivable Turnover

This ratio is computed by dividing sales by account receivables.

Thus,

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

It indicates the no. of time the receivables are turned over during the year. It gives the general measure of the productivity of the receivable measurement. If the ratio is high the working capital becomes higher and if the ratio is low the working capital becomes lower.

c. Collection of Account Receivable

Collection of Account= $\frac{Receivables}{Sales}$ 100

d. AR to Cash/Bank Balance

AR to Cash/Bank Balance = $\frac{\text{a or Bank Balance}}{\text{ount Receivables}}$

e. Analysis Cash to Current Liabilities

Cash to Current Liabilities = $\frac{\text{a or Bank Balance}}{\text{rrent Liabilities}}$

B) Average Collection Period (ACP)

It indicates the no. of days it takes on an average to collect account receivables. It is computed as:

a) Average Collection Period = $\frac{\text{s in a Years (360)}}{\text{eivable Turnover}}$

b) Average Days of Five Year = $\frac{\text{al Days of Five Year}}{\text{Five Year}}$

3.4.2. Statistical Tools

Statistical tools are the measures or the instruments to analyze the collected data from different sources. In statistics, there are numerous tools to analyze data of various natures. In this study, the researcher has used the following statistical tools to analyze the data:

Average/ Mean

An average is a single value related from a group of values to represent them in some way, a value, which is supposed to stand for whole group of which it is a part, as typical of all the values in the group. There are various types of averages. Arithmetic mean (AM, Simple & Weighted), median, mode, geometric mean,

harmonic mean are the major types of averages. The most popular and widely used measure representing the entire data by one value is the AM. The value of the AM is obtained by adding together all the items and by dividing this total by the number of items.

Mathematically

Arithmetic Mean (AM) is given by,

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

Where,

X = Arithmetic mean

  x = Sum of all the values of the variable X

n = Number of observations

Standard Deviation

The standard deviation ( ) measures the absolute dispersion. The greater the standard deviation, the greater will be the magnitude of the deviations of the values from their mean. A small standard deviation means a high degree of uniformity of the observations as well as homogeneity of a series and vice versa.

Mathematically:

$$= \overline{\Sigma(X - \bar{X})^2}$$

Coefficient of Variation

The standard deviation is absolute measures of dispersion; whereas the coefficient of variation (CV) is a relative measure. To compare the variability between two or more series, CV is more appropriate statistical tool:

Mathematically,

$$CV = \frac{\sigma}{\bar{x}} \times 100$$

Correlation Coefficient

When the relationship is of quantitative nature, the appropriate statistical tool for discovering and measuring the relationship and expressing it in a brief formula is known as correlation. If the values of the variables are directly proportional then the correlation is said to be positive. On the other hand, if the values of the variables are inversely proportional, the correlation is said to be negative, but the correlation is said to be negative, but the correlation coefficient always remains within the limit of + 1 to − 1. By Karl person, the simple correlation coefficient (between tow variables, say X and Y) is given by:

$$r_{xy} = \frac{(XY)}{\sigma y}$$

Where,

r_{xy} = is the correlation coefficient between two variables x & y

'r' lies between +1 to -1

When r = +1, there is perfect positive correlation

When r = -1, there is perfect negative correlation

When r = 0, there is no correlation

When r lies between 0.7 to 0.999 9 (or -0.7 to -0.999), there is high degree of positive or negative correlation

When r lies between 0.5 and 0.699, there is moderate degree of correlation

When r is less than 0.5, there is low degree of correlation

Coefficient of Determination

The coefficient of determination gives the percentage variation in the dependant variable that is accounted for by the dependant variable/s. In other words, the coefficient of determination gives the ratio of expected variance to the total variance. The coefficient of determination is given by the square of the correlation coefficient, i.e. r^2

So, the coefficient of determination $= r^2 = \dfrac{\text{Expected Variance}}{\text{Total Variance}}$

CHAPTER -IV
PRESENTATION AND ANALYSIS OF DATA

The basis objective of this study as stated in chapter one is to have true insight into "Cash Management" of BNL. For accomplishment of these objectives is a definite course of research methodology has been followed which is described in chapter third. Now in this study the effort has been made to assess and analysis the cash management to disclose the actual position of cash management of BNL.

4.1 Analysis of the Data by Financial Tools
4.1.1 Analysis of Cash Balance

Management of cash plays a vital role in current assets of BNL. The total cash include cash in hand, cash at bank and cash in transit. The table below shows the cash position of the company during the study period

Table 4.1

Analysis of Cash Balance

Fiscal Year	Cash and Bank Balance (Rs)	Increase (Decrease) %
2003/04	5335000	-
2004/05	13755000	157.83
2005/06	1917000	(86.06)
2006/07	35926000	1774.07
2007/08	3464000	(90.36)
2008/09	6788000	95.96

Source: Annual Report of BNL for the Relevant Year

The cash holding of the company shows very fluctuating as it increased by 157.83 percent in FY 2004/05 as compared to 2003/04and in FY 2005/06 decreased by 86.06 percent as compared to cash balance of 2004/05 But strong chances occurred in 2006/07 where the cash balance increased to 1774.07 percent. In fact this visualizes that the company could not make the best use of these available cash balance prudently. There is declined of cash balance to 90.36 percent in 2007/08 which is more than as compared to 2005/06 but the cash balance in 2005/06 is very less amount as compared to 2006/07. In fiscal year 2008/09 cash balance is increased to 95.96% and reached in Rs.6788, 000. On the whole these figure show that there is no any definite policy of cash management. While in some years it has maintained excessive of cash balance, while in others years it has very low. Moreover the company has not planned cash inflow and outflow forecasts. It is of crucial importance for the company to keep careful watch over the cash movements of determine how cash throw offs become available and also to investigate the opportunity for the use of cash.

4.1.2 Analysis of Cash Turnover

Table 4.2

Analysis of Cash Turnover

Fiscal Year	Cash and Bank Balance (Rs)	Sales (Rs)	Cash Turnover (Time)

2003/04	5335000	609654000	114.27
2004/05	13755000	632114000	45.96
2005/06	1917000	614739000	320.68
2006/07	35926000	621827000	17.31
2007/08	3464000	434190000	125.35
2008/09	6788000	688360000	101.40
Average			**105.62**

Source: Annual Report of BNL for the Relevant Year

 Cash turnover ratio represents how quickly the cash is received from its sale be formulates to find out. Higher turnover is the signal of good liquidity position and vice versa. The above table shows that the highest cash turnover is 320.68 times in the FY 2005/06 when average being 105.62. In the year 2003/04, 2005/06 and 2007/08, the cash turnover time is more than that of the averages. This shows that in the year 2003/04 and 2005/06 it takes 114.27 and 320.68 times respectively and 2007/08 it takes 125.35 times which are above from the standards i.e. averages. This table shows that a cash turnover time in a company is not homogeneity i.e. there is fluctuating trend. Some time it takes more time where as some time it takes very less time than that of averages. Which indicates that in the year 2004/05, 2006/07 and 2008/09 company unable to collect cash from its credit sale timely. From the calculation it is observed that the collection efficiency in BNL is very low.

Figure 4.1

Graphical Presentation between Cash and Bank Balance and Sales
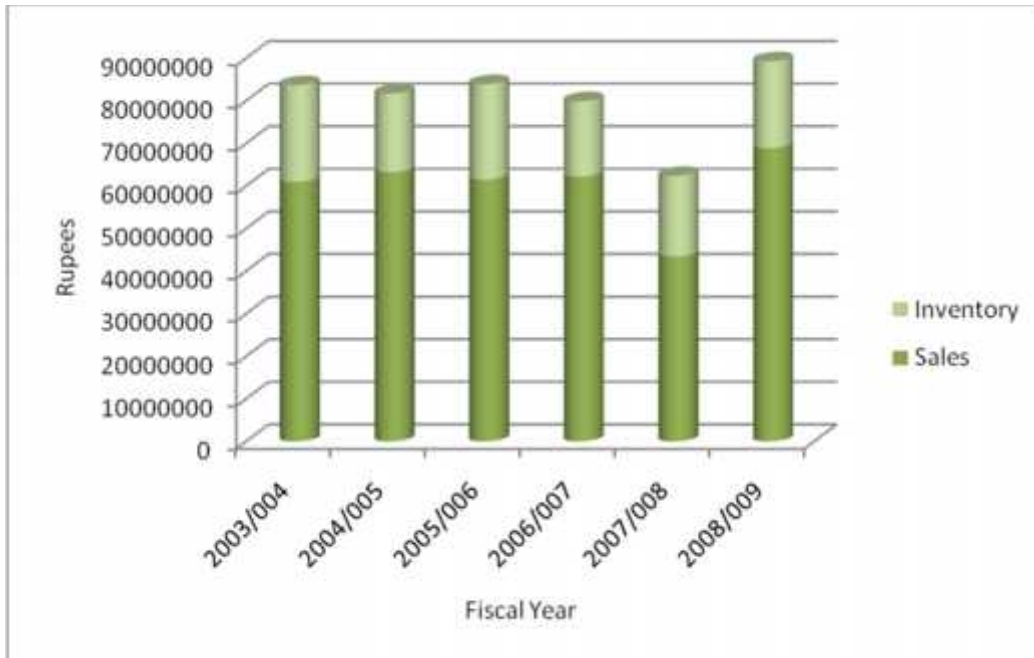
The above bar diagram shows that the graphical presentation of the relation between cash and bank balance and sales. The graph shows that the sales are maximum in the fiscal year 2004/05 and minimum in the year 2007/08. The figure also shows that cash and bank balance is minimum in the year 2005/06 and maximum in the year 2006/07. In the figure it is seen that the cash and Bank balance comparison with sales is very minimum.

4.1.3 Analysis of Cash Conversion Cycle

Liquidity is the most important factor in determining firm's working capital policy. Liquidity has two aspects ongoing liquidity and protective liquidity, out of which, ongoing liquidity refers to the inflows and outflows of cash. So it is important to go through the cash flow of the company with the help of analyzing firm's cash conversion cycle.

A cash conversion cycle reflects the net time interval in days between actual cash expenditure of the firm on conversion period indicates resources and ultimate recovery of the cash. The cash conversion cycle is calculated as follows:

Cash Conversion Cycle = Inventory Conversion Period + Receivable Conversion Period – Payable Deferral Period

To analyze the cash conversion cycle first of all it should be analyzed inventory conversion period, receivable period and payable deferrable deferral period.

i. Inventory Conversion Period

Inventory conversion period indicates efficient of the firms in selling its product. The short period indicates fast conversion of inventory to sales and the long period indicates fast conversion of inventory to sales and the long period indicates slow conversion period of inventory to sales. It can be calculated as follows:

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

$$\text{ICP} = \frac{360}{\text{Inventory Turnover}}$$

Table 4.3

**Analysis of Inventory Conversion Period**

Fiscal Year	Days in a Year	Sales(Rs)	Inventory(Rs)	Inventory Turnover Time	ICP (Days)
2003/04	360	609654000	226861000	2.69	133.83
2004/05	360	632114000	184980000	3.42	105.26
2005/06	360	614739000	224070000	2.74	131.39
2006/07	360	621827000	176936000	3.51	102.56
2007/08	360	434190000	189256000	2.29	157.21
2008/09	360	688360000	204258000	3.37	106.82
Average					122.845

Source: Annual Report of BNL for the Relevant Year

The calculation of inventory conversion period of BNL in the above table has shown fluctuating trend in the study period. Varies from maximum of 157.21 =157days in the fiscal year 2007/08 to minimum of 102.56 = 103days in the fiscal year 2006/07. The maximum period refers the slow inventory turnover and minimum period prefers the fast inventory turnover. The average ICP is found 122.845 = 123 days which is more than that of year 2004/05, 2006/07 and 2008/09 and less than in the year 2003/04, 2005/06 and 2007/08 inventory conversion period.

Figure 4.2

Graphical Presentation between Sales and Inventory
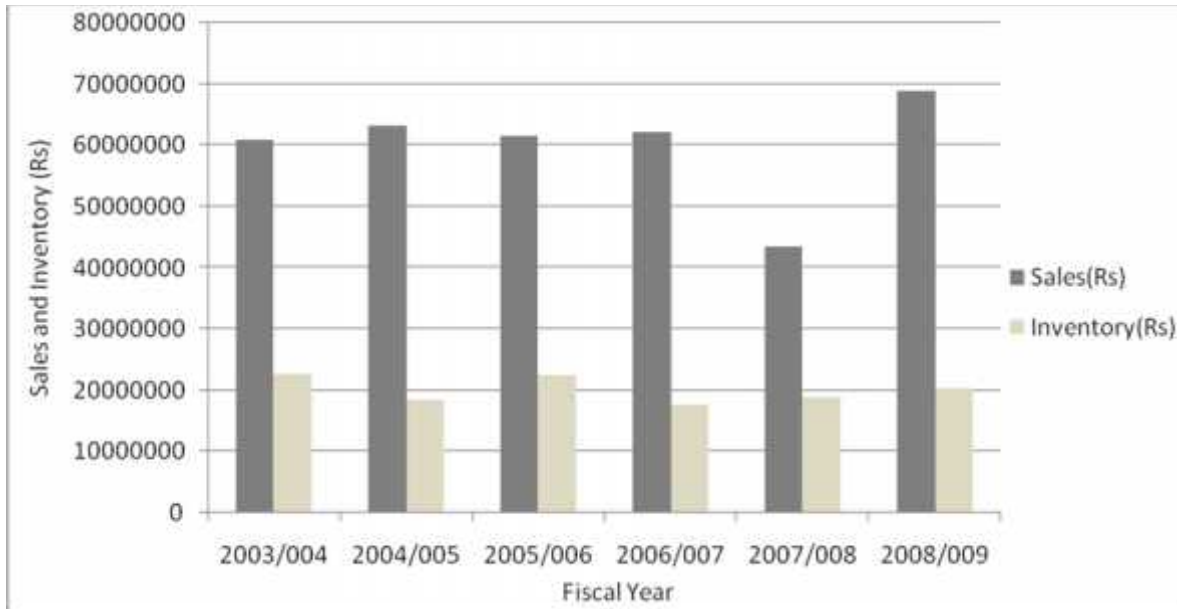
The above bar diagram shows that the relation between sales and inventory. In the figure shows that, the relation of inventory with comparing to sales except in fiscal year 2005/06 is in decreasing trend. The sales are maximum in the year 2008/09 and minimum in the year 2007/08 and inventory in the year 2003/04 and in the year 2005/06 is very high.

ii.   Analysis of Receivable Conversion Period

Receivable conversion period indicates the number of day's debtor turnover into cash. It analyzes collectable of debtors. The longer collection period, more efficient is the management of credit policy or it refers to the liberal credit policy and short period refers to the strict credit policy. The receivable conversion period is calculated as follows:

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

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

Table 4.4

Analysis of Receivable Conversion Period

Fiscal Year	Days in a Year	Sales (Rs)	Receivables (Rs)	Receivable Turnover Times	RCP Days
2003/04	360	609654000	88039000	6.92	52.02
2004/05	360	632114000	124178000	5.09	70.73
2005/06	360	614739000	80845000	7.60	47.37
2006/07	360	621827000	63657000	9.77	36.85
2007/08	360	434190000	52823000	8.22	43.80
2008/09	360	688360000	71014000	9.69	37.15
Average					47.99

Source: Annual Report of BNL for the Relevant Year

The calculation of receivable conversion period of BNL in the above table has shown fluctuating trend in the study Period. It varies from the minimum 36.85=37 days in the year 2006/07 to maximum 70.73=71 days in the year 2004/05. The average receivable conversion period of NBL is 47.99 = 48 days. Low collection period indicates fast conversion of receivable and long collection period indicates slow conversion period. Here in the year 2005/06, 2006/07, 2007/08 and 2008/09, collection period is less than average and in the year 2003/04 and 2004/05 the collection period is higher than average collection period.

Figure 4.3

Receivable Conversion Period
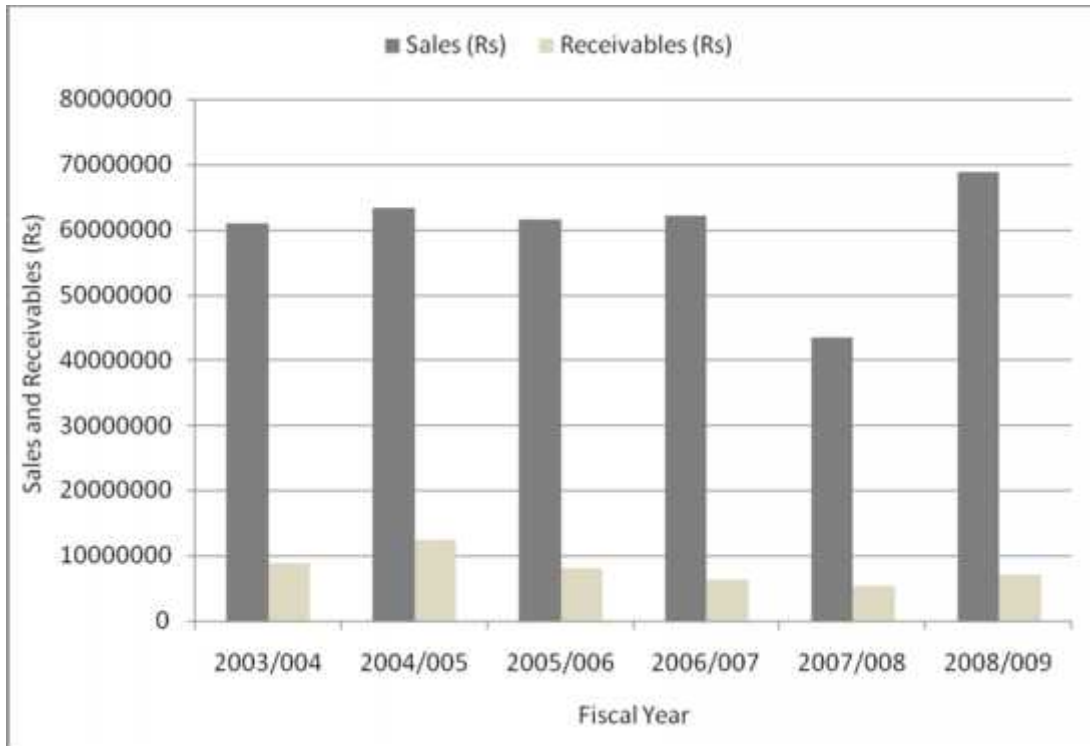
In the above figure it is seen the receivables are in fluctuate trend. Sales are minimum in the year 2065/66 Receivable with compare to sales are very minimum which is positive signal for the company.

iii. Analysis of Payable Conversion Period

Payable conversion Period indicates that speed of creditors payable. A high payable conversion period is favorable for the company. Payable differed (conversion) period is calculated as follows:

$$P = \frac{ditors \times Days\ in\ a\ year}{Purchases}$$

Table 4.5

Analysis of Payable Conversion Period

Fiscal Year	Creditors(Rs)	Purchase(Rs)	Days In a year	PDP (Days)
2003/04	58165000	326263000	360	64.18
2004/05	54296000	316496000	360	61.76
2005/06	72333000	339315000	360	44.91
2006/07	35336000	212880000	360	59.76
2007/08	46302000	301578000	360	55.28
2008/09	49580000	312866000	360	57.04
Average				**57.16**

Source: Annual Report of BNL for the Relevant Year

The calculation of payable deferral period of BNL in the above table indicates fluctuating trend in the study period. In the study period PDP varies from maximum of 64.18 days in the year 2003/04 and minimum of 44.91 days in the year 2005/06. The average payable period of 57.16 = 57days has taken by company for the payment of trade creditors.

Figure 4.4

Graphical Representations between Purchase and Creditors
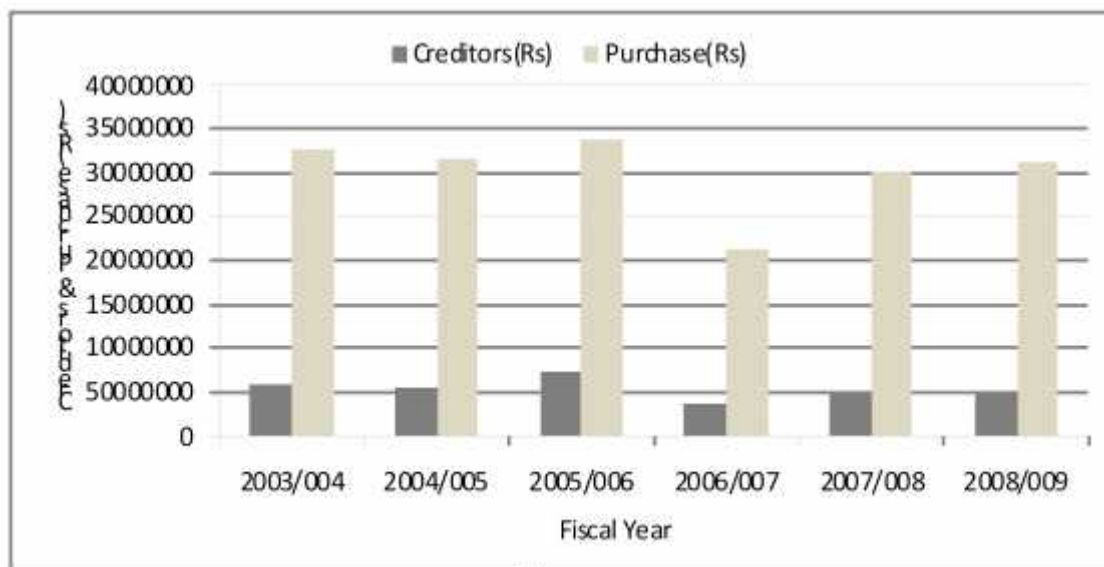
The figure shows that the graphical presentation between purchase and creditors. In the figure it is seen that the purchase is minimum in the year 2064/65 and maximum in the year 2063/64. The relation of the creditors in comparison to purchase is homogeneous in preceding four years and in final years it is in increasing trend.

iv. Calculation of Cash Conversion Cycle (CCC)

Cash conversion cycle shows how many time does it take to convert the receivable into cash, inventory turnover into cash and how much time it takes to repay its obligation. Shortly, it refers the cash inflow and outflow of the company. The cash conversion cycle is calculated as follows:

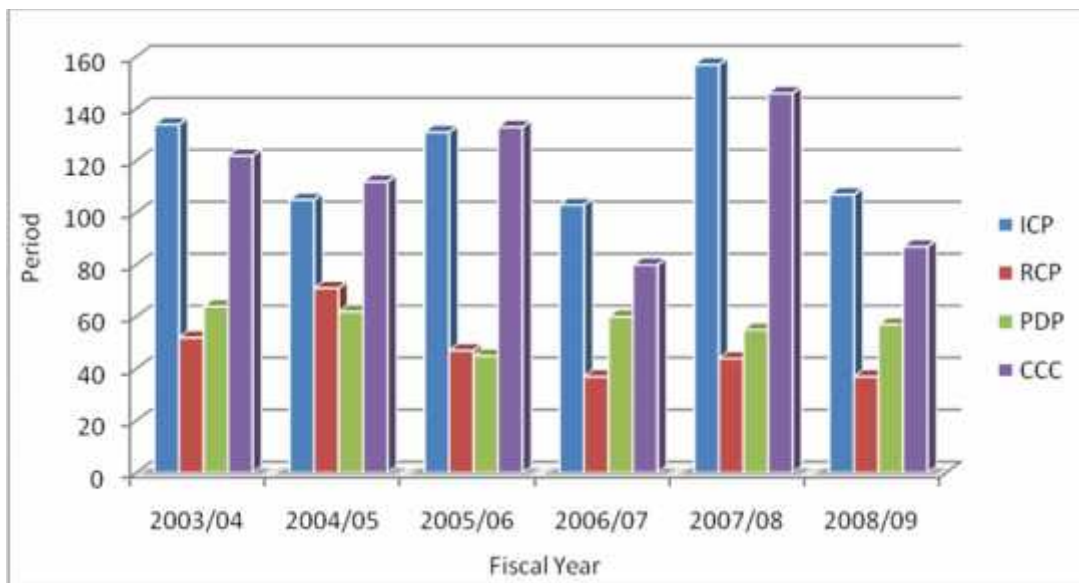**CCC = ICP + RCP – PDP**

Table 4.6

Cash Conversion Cycle

Fiscal Year	ICP	RCP	PDP	CCC
2003/04	134	52	64	122
2004/05	105	71	62	112
2005/06	131	47	45	133
2006/07	103	37	60	80
2007/08	157	44	55	146
2008/09	107	37	57	87
Average				113

Source: Audited Balance Sheet of BNL for the Relevant Year

The above table shows the cash conversion cycle CCC of BNL for the study period of Six years from the fiscal year 2003/04 to 2008/09. Above table shows that the fluctuating trend in the company during the study period. The average cash conversion cycle of BNL is 113 days which seem to be not satisfactory but

company's credibility is good. Firm could not get the credit due to the company delay in paying its obligation. BNL has maximum of 146 days in the year 2007/08 and minimum of 80 days in the year 2006/07.

Figure 4.5

Graphical Presentation among ICP, RCP, PDP and CCC

The above figure shows that the graphical representation among ICP, RCP, PDP and CCC. In the above multiple bar diagram it is seen that ICP, RCP, PDP and CCC are in fluctuating trend.

4.1.4 Analysis of Account Receivable of BNL

The comparison sells its goods on credit and cash basis. When the corporations extend credit to its customers, book debts are credited. Debtors or account receivables are to be converted into cash over a short period in included in correct assets. The liquidity position of the corporation depends on the quality of debtors to a great extent. Account receivables turnover in the relationship between credit sales and collection period. If turnover is high, there will be little congestion of fund in turnover and vice versa.

Table 4.7

Analysis of Account Receivable Turnover of BNL

Fiscal Year	Sales(Rs)	Receivable (Rs)	Ratio (Time)	Total Collection (%)
2003/04	609654000	88039000	6.92	85.56
2004/05	632114000	124178000	5.09	80.36
2005/06	614739000	80845000	7.60	86.25
2006/07	621827000	63657000	9.77	89.76
2007/08	434190000	52823000	8.22	87.83
2008/09	688360000	71014000	9.69	88.79

Source: Audited Balance Sheet of BNL for the Relevant Year

From the above table, a receivable turnover time on the year 2006/07 is 9.77, which is very high in the study period whereas in the other previous study years it seems to be homogeneity. The table also shows that the company account receivable is 11 to 20% that is very positive signal for the company because collection of sales over than 80 percent in relevant year is a satisfactory situation for the company.

4.1.5 Analysis of Account Receivable to Cash and Bank Balance

Cash and bank balance measures the relationship between level of cash and bank to AR over a period of time. The greater the AR the better the turnover would be provided that, cash and bank balance can be maintained at a desirable level. The following table shows the relationship of AR to cash and bank balance.

Table 4.8

Analysis of Account Receivable to Cash and Bank Balance

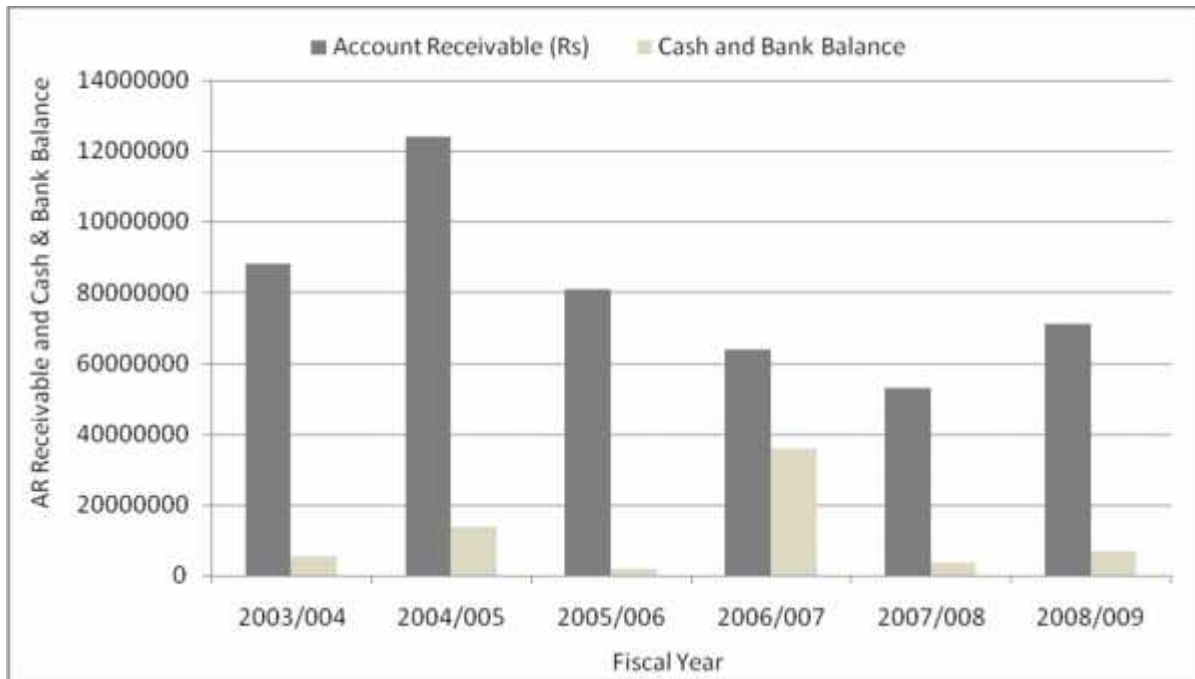| Fiscal Year	Account Receivable (Rs)	Cash and Bank Balance	% of AR
2003/04	88039000	5335000	6.06
2004/05	124178000	13755000	11.08
2005/06	80845000	1917000	2.37
2006/07	63657000	35926000	56.44
2007/08	52823000	3464000	6.56
2008/09	71014000	6788000	9.56
Average			15.345

Source: Audited Balance Sheet of BNL for the Relevant Year

The analysis of the above table shows the analysis of account receivable to cash and bank balance in the study period. It clearly shows that in the study period is in fluctuating trend i.e. 6.06 percent, 11.08 percent, 2.37 percent, 56.44 percent, 6.56 percent and 9.56 percent respectively for year 2003/04, 2004/05, 2005/06, 2006/07, 2007/08 and 2008/09. During the study period cash and bank balance is not homogeneity i.e. from 2.37%and 56.44 percent the amount of cash and bank balance with respect to account receivable is minimum which shows that the management is less concerned to speed of the collections of account receivables. By this situation company is suffered the deficit of cash balance to meet its current liabilities and also shows that management has taken semi liberal credit policy of sales of goods.

Evaluating this situation, cash and bank balance is neither so good nor so bad i.e. moderately satisfactory because the minimum percentage of the AR on cash and bank balance is not satisfactory in corporation to account receivables thus it can be said that, higher the account receivables thus it can be said that, higher the account receivable caused lower cash balance and vice versa. Thus management should not

adopt strength policy to increase cash balance to maintain at a desired level of cash balance.

Figure 4.6

Graphical Presentations between Account Receivable and

Cash and Bank Balance

The above bar diagram shows that the relation of account receivable with cash and bank balance. In the figure it is seen that the account receivable except in the year 2004/05 and 2008/09 is in decreasing trend and cash and bank balances are in fluctuating trend. It is minimum in the year 2005/06 and maximum in the year 2006/07.

4.1.6 Analysis of Cash and Bank Balance to Current Assets

The ratio directly offers the cash management of the company. Lower ratio shows the sound liquidity management of the company it is calculated by cash and bank balance divided by current assets, which is shown in following table.

Table 4.9

Cash and Bank Balance to Current Assets

Fiscal year	Cash &Bank Balance	Current Assets (Rs)	% of C&B on CA
2003/04	5335000	532383000	1.00
2004/05	13755000	447831000	3.07
2005/06	1917000	453211000	0.42
2006/07	35926000	436045000	8.23
2007/08	3464000	469701000	0.74
2008/09	6788000	448452000	1.51
Average			2.495

Source: Audited Balance Sheet of BNL for the Relevant Year

Above table shows the percentage of cash and Bank balance to current assets of the company. Above table indicates that the cash and bank balance with respect to current assets has been fluctuating trend. During the study period it is the lowest 0.42 percent for the year 2005/06 and the highest 8.23 percent in the year 2066/07 On an average the projection of cash and bank balance to current assets for the study period 2.496 percent while comparing with the average it is found that the percentage of cash and bank balance to current assets for the year except 2005/06 and 2007/08 are lower. Thus it can be said that the cash position of BNL is not good.

Figure 4.7
Graphical Presentations between Cash Balance and Current Assets
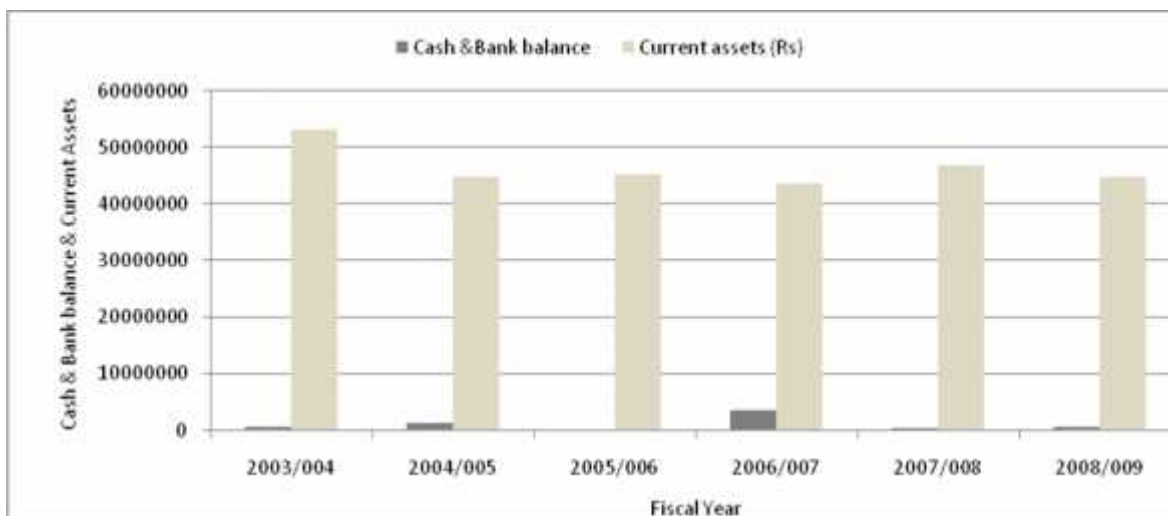
The above diagram shows that the graphical relation between current assets and bank balance. In the figure it is seen that the current assets are in fluctuating trend over the study period whereas the cash and bank balance also in the fluctuating trend. The figure also clearly shows that portion of cash and bank balance with comparing to its current assets are very low.

4.1.7 Analysis of Cash and Bank Balance to Total Assets

The higher ratio indicates the lower risk and profitability whereas lower ratio indicates higher risks and higher profitability. It is calculated dividing cash and bank balance by total assets which is shown in below.

Table 4.10

Cash and Bank Balance to Total Assets

Fiscal year	Cash & Bank Balance	Total Assets	% of Cash & Bank Balance on Total Assets
2003/04	5335000	1022405000	0.52
2004/05	13755000	886555000	1.55
2005/06	1917000	975266000	0.20
2006/07	35926000	1048353000	3.43
2007/08	3464000	1252066000	0.28
2008/09	6788000	1452456000	0.47
Average			**1.075**

71

The above table shows the percentage of cash and bank balance to total assets of BNL the ratio represents the proposition of cash and bank balance to total assets investments of BNL of study period. Above BNL, the percentage of cash and bank balance to total assets in the fluctuating trend. The ratio varies from minimum 0.20 percent to maximum 3.43 percent in the year 2005/06 and 2006/07 respectively. It has average ratio of 1.075 percent which seems very low for the company BNL. On the average 1.075 percent during the study period which is greater than except year 2004/05 and 2006/07. Among the components of current assets cash and bank balance hold the minimum proportion. Cash is required for day to business operation. Cash shortage for the firm means, firm is not able to invest in golden opportunities. From the personal construct with the divisional manager, it is known that it is due to improper management of cash of the company.

Figure 4.8

Graphical Presentation between Cash and Bank Balance and Total Assets
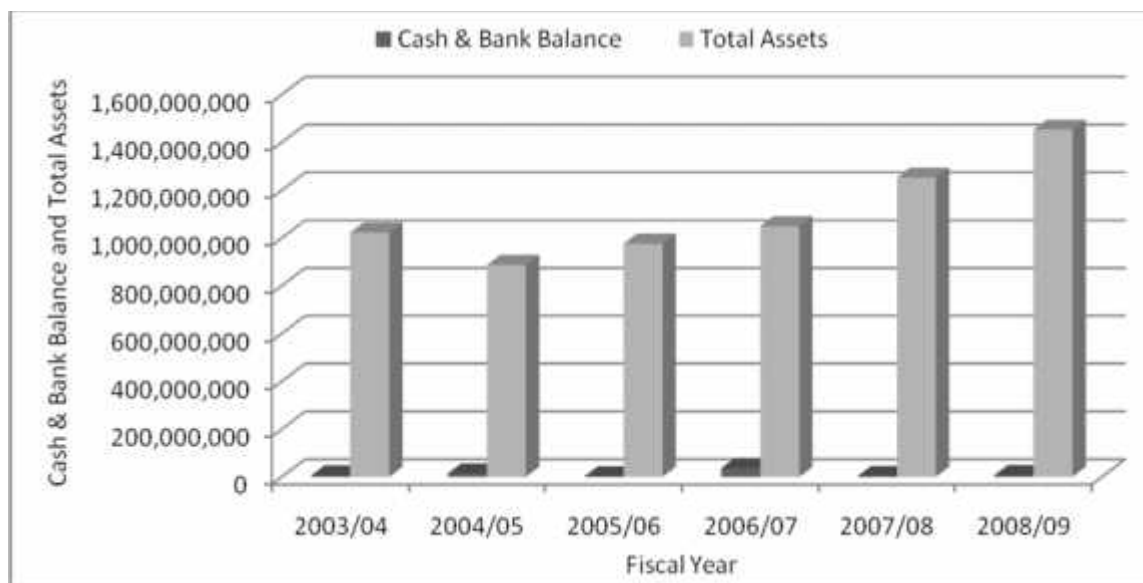
Above bar diagram shows that, the relation between cash and bank balance and total assets. In the figure it is seen that the total assets are in increasing trend over the study except the year 2004/05 whereas cash and bank balances are in fluctuating trend. The figure clearly shows that the proportion of cash and bank balance with comparing to its total assets are very low.

4.1.8 Analysis of Cash and Bank Balance to Current Liabilities

Among the techniques of measuring company's liquidity the ratio of cash to current liabilities may also be used as index of cash management. This ratio indicates the amounts of cash (in percentage) available to pay the current obligation of the firm. In general a low percentage of cash to current liabilities may be regarded as a favorable indicator. However, a very ratio is also not desirable as it may lead to corporate solvency. The table shows the level of cash in relation to current liabilities of Nepal Bottlers limited.

Table 4.11
Analysis of Cash and Bank Balance to Current Liabilities

Fiscal Year	Cash and Bank Balance	Current Liabilities	% of Cash & Bank Balance on CL
2003/04	5335000	332848000	1.60
2004/05	13755000	174022000	7.90
2005/06	1917000	22891000	8.37
2006/07	35926000	275483000	13.04
2007/08	3464000	57640000	6.01
2008/09	6788000	426800000	1.59
Average			**6.42**

Source: Annual Report of BNL for Relevant year

From the above table the lowest ratio i.e. 1.59 percent for the fiscal year 2008/09 and highest ratio i.e. 13.04 percent for the fiscal year 2006/07 In the fiscal year 2003/04, 2004/05,2006/06 and 2007/08, the levels of cash relations to current

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liabilities are 1.6, 7.90, 8.37 and 6.01 percent respectively. The ratio is in fluctuating trend during the study period. Thus it can be said that the BNL has face the problem of cash management.
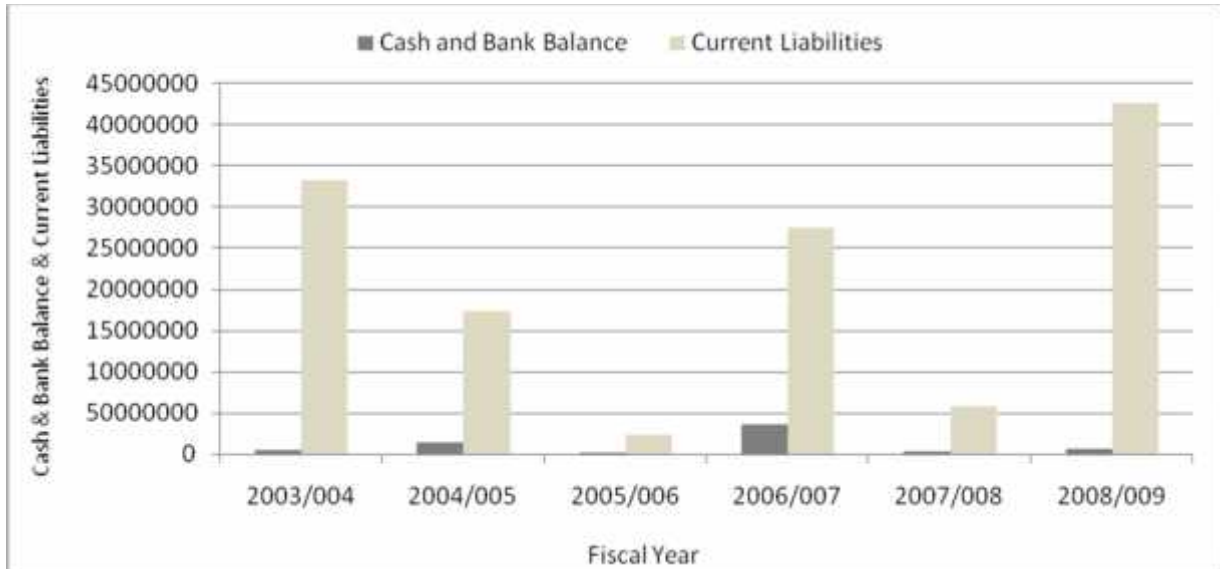
Above bar diagram shows that he graphical presentation between current liabilities and cash and bank balance. In the figure it is seen that the current liabilities are in fluctuating trend it is minimum in the year 2062/63. There is also fluctuating trend in cash and bank balance. The portion of cash and bank balance with comparison to current liabilities are very low.

4.2 Statistical Analysis

4.2.1 Fitting the Straight Line Trend by Least Square

Spreadsheet for variation s in cash balance to analyze the data by using least square method let us assume that the fiscal year be   and cash balance be Y. if we keep the fiscal year ranking from 1 to 5 than number of observation would be 5. Similarly, cash balance Y would be kept in four figures i.e. in Rs. to make calculation easier.

So that the straight line trend $Yc = a + bx$

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

Where, a =

b= ⁝

X = (X-   ²

Table 4.12

Least Square Spreadsheet between FY and Cash and Bank Balance

Fiscal Year (X)	Cash Balance in Rs(000)(Y)	X-	(X- ²	XY
2003/04 (1)	5335	-2.5	6.25	-13337.5
2004/05 (2)	13755	-1.5	2.25	-20632.5
2005/06 (3)	1917	-0.5	0.25	-958.5
2006/07 (4)	35926	0.5	0.25	17963
2007/08 (5)	3464	1.5	2.25	5196
2008/09 (6)	6788	2.5	6.25	16970
$\overline{X} = \frac{\sum X}{N}$	$\sum Y = 67185$	$\sum X - \overline{X} = 0$	$\sum (X - \overline{X})2 = 17.5$	$\sum XY = 5200.5$

Source: Annual Report of BNL for the Relevant Year

$= \frac{\sum X}{N}$ $= 21/6 = 3.5$

a = =   67185/6 = 11197.5

b = ⁝   = 5200.5/17.5 = 297.17

$Y_c = 11197.5 + 297.17 \, X$

This trend ling shows the positive figure of cash balance for future. The annual rate of increment of cash balance is same to be 297.17 X 1000 = 297170. To

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predict the future cash balance fitting the above calculated cash trend line in the following table for future four year, by taking FY 2003/04 as a base year.

Table 4.13

Future Trend Line of Cash Balance

Fiscal Year	X	Trend Line	Cash Balance (Y)
2009/10	6(2009/10-2003/04)	$Y_c = 11197.5 + 297.17 \times 6$	12980.52
2010/11	7(2010/11-2003/04)	$Y_c = 11197.5 + 297.17 \times 7$	13277.69
2011/12	8(2011/12-2003/04)	$Y_c = 11197.5 + 297.17 \times 8$	13574.86
2012/13	9(2012/13-2003/04)	$Y_c = 11197.5 + 297.17 \times 9$	13872.03

By the help of fit line trend in the FY 2009/10 will be cash balance 12980.52 thousand similarly 13277.69, 13574.86 and 13872.03 thousand for the year 2010/11, 2011/12 and 2012/12 respectively.

In the conclusion the cash generated trend is increasing slop. Which implies cash will be more than present.

Figure 4.10

Future Trend of Cash Balance
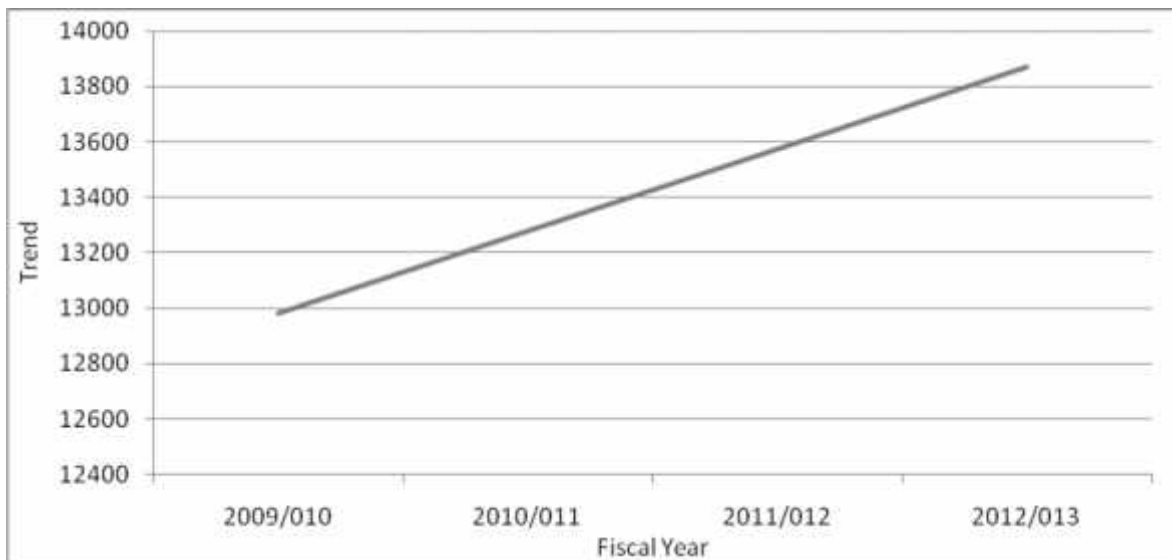
The trend line shows that cash balance will increase trend in future.

4.2.2 Correlation Coefficient between Cash/Bank Balance and Actual Sales

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To find correlation between sales and cash/bank balance Karl Pearson's coefficient of correlation (r) is determined. For this purpose actual sales (X) are assumed to be dependence variables and cash balance Y are assumed to be independent variable. At first, it is assumed that actual sales will increase as cash balance will increase or vice versa. It means these be positive correlation between cash balance and actual sales. The significance of correlation "r" is tested with probable error or "r".

Table 4.14

Correlation 'r' between Actual Sales and Cash Balance

(in Rs. 000)

Fiscal Year	Actual Sales(X)	Cash Balance(Y)	X- (U)	Y- (V)	U^2	V^2	UV
2003/04	609654	5335	-23826.67	-5862.5	567710203.3	34368906.25	139683852.875
2004/05	632114	13755	-1366.67	2557.5	1867786.89	6540806.35	-3495258.525
2005/06	614739	1917	-18741.67	-9280.5	351250194.4	86127680.25	173932068.435
2006/07	621827	35926	-11653.67	24728.5	135808024.5	611498712.25	-288177778.595
2007/08	634190	3464	709.33	-7733.5	503149.0489	59807022.25	-5485603.555
2008/09	688360	6788	54879.33	-4409.5	3011740861	19443690.25	-241990405.635
Total	3800884	67185	0.0	0.0	4068880219	817786817.6	225533125

Source: Audited Balance Sheet of BNL for the Relevant Year

$$= \frac{\sum X}{N} \quad = 3800884/6 = 633480.67$$

$$= \frac{\sum Y}{N} \quad = 67185/6 = 11197.5$$

$$r = \frac{\sum UV}{U2 \times \sum V2} \quad = \frac{225533125}{58880219 \times 817786817.6} \quad = 0.1236 \quad 0.12$$

$$\therefore r = 12\%$$

We have standard deviation of actual sales X

$$= \sqrt{\frac{\sum(x-\bar{x})^2}{n}} \quad = \frac{\overline{068880219}}{6} \quad = \quad 26041.25$$

Similarly, standard deviation of cash balance Y

$$= \sqrt{\frac{\Sigma(Y-\bar{Y})^2}{n}} \quad = \frac{1778681\mathord{.}6}{6} \quad = 11674.67$$

The value of 'r' 0.1236 i.e. 12% shows that there is lower positive correlations between cash and sales. But this positive correlation is not only due to chances. The test of significant of the value or 'r' is shows that either there is significant positive relationship or not between the cash balance and sales.

A regression line can also be fitted to show the degree of relationship between actual sales and cash and bank balance. Cash balance can be forecasted by the value of actual sales. For this purpose cash balance and actual sales have been assumed interrelated economic variables. So, the regression line of sales (X) on cash balance (Y) is

$$X- \quad = r. \quad (Y- \quad)$$

Or, $X- 633480.67 = 0.1236 \times \dfrac{041.25}{574.67} \quad (Y - 11197.5)$

Or, $X – 633480.67 = 0.2757(Y-11197.5)$

Or, $X = 0.2757Y-3087.15075 +633480.67$

Or, $X = 0.2757Y + 630393.52$

This equation shows that sales will be increased by 0.2757 per Rs. increases in cash balance.

Next the regression line of cash balance (Y) on actual sales (X) or Y on X is as under:

$$Y- \quad = r. \quad (X- \quad)$$

Or, Y-11197.5 = 0.1236 X $\frac{74.67}{41.25}$ (X – 633480.67)

Or, Y- 11197.5 = 0.055(X-633480.67)

Or, Y = 0.55X – 23643.94

Thus, an assumption that cash balance is a function of sales achieved this shows that per Rs. increases in sales by 0.55 per Rs. increases in cash balance.

4.2.3 Fitting the Straight Line Trend by Least Square for Sales and Receivables

Time element is also important factor because with the passage of time sales achievements account receivables changes, which can be expressed by the component of time series. A straight line trend by the method of least square will show the relationship between years (time) and ratio in time of account receivables and sales.

Table 4.15

Fitting the Straight Line Trend by Least Square for Sales and Receivable

Fiscal Year	Ration in time (Y)	$X - \bar{X}$	X^2	XY
2003/04(1)	6.92	-2.5	6.25	-17.3
2004/05(2)	5.09	-1.5	2.25	-7.635
2005/06 (3)	7.60	-0.5	0.25	-3.8
2006/07 (4)	9.77	0.5	0.25	4.885
2007/08 (5)	8.22	1.5	2.25	12.33
2008/09 (6)	6.87	2.5	6.25	17.175
X=21	Y =44.47	$-\bar{X} =$ 0.0	X^2=17.5	XY =5.655

Source: Annual Report of BNL for the Relevant Year

$= \frac{\Sigma X}{n} \quad = \quad = 3.5$

Where,

X = no. of observation

Y = Time in Ratio of AR & Sales straight line trend.

$Y_c = a+bx$

$$a = \quad = \frac{7}{-} \quad = 7.41$$

$$b = \frac{.}{.} \quad = \frac{5}{.} \quad = 0.32$$

$Y_c = 7.41 + 0.32x$

This trend line shows that sales are directly affected by the account receivable in future.

To predict the future trend for sales and receivable, fitting the above calculated sales and receivable trend in the following table for future four years by taking FY 2003/04 as a base year.

Table 4.16

Future Trend line for Sales and Receivable

Fiscal Year	X	Trend Line	AR ratio in Time (Y)
2009/10	6(2009/10-2003/04)	$Y_c = 7.41 + 0.32x\ 6$	9.33
2010/11	7(2010/11-2003/04)	$Y_c = 7.41 + 0.32x\ 7$	9.65
2011/12	8(2011/12-2003/04)	$Y_c = 7.41 + 0.32x\ 8$	9.97
2012/13	9(2012/13-2003/04)	$Y_c = 7.41 + 0.32x\ 9$	10.29

By the help of above data presentation indicates that sales and receivables both are in increasing trend for future simultaneously. If sales will be increases. The receivable will be also increases.

Figure 4.11

Future Trend Line of A/R and Sales by A/R Turnover Ratio
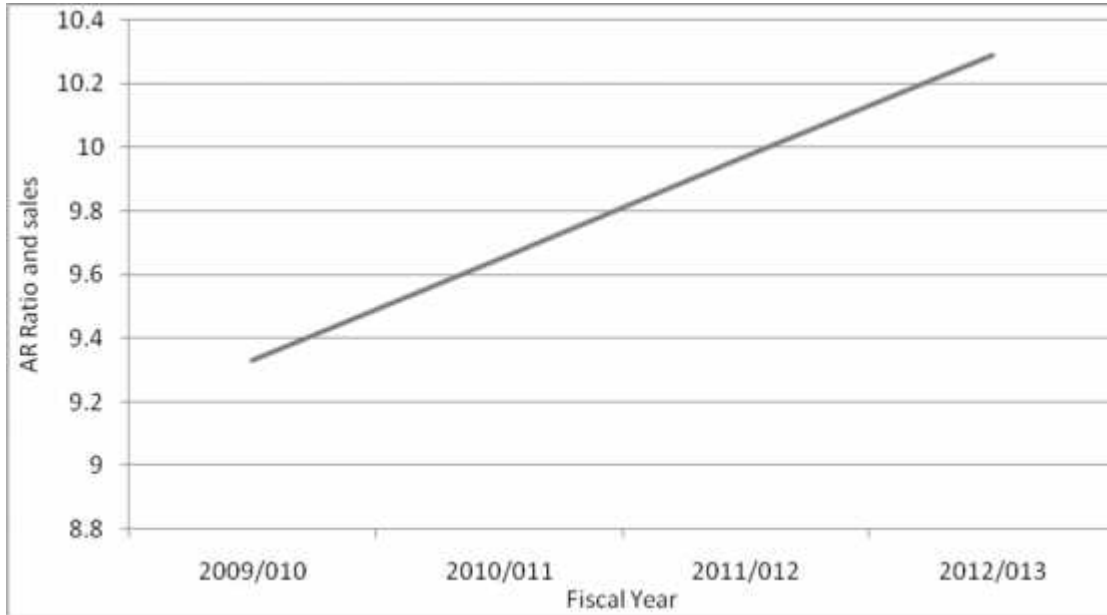
The trend line shows that A/R turnover ratio in future will increasing trend that means sales and receivable are increasing in future.

4.2.4 Analysis of Correlation Coefficient between Sales and Account Receivables

To find out the correlation between sales and receivable, Karl Pearson's communities-efficient of correlation "r" is determined. For this purpose sales and receivables are assumed to be interrelated economic variables. So both receivables relations are explored. Its assumed receivables (X) are dependent variables and sales (Y) are independent variables. It is assumed that sales will increase as receivables increases or vice-versa. It means that there should be positive relationship between sales and receivables.

Table 4.17

Correlation 'r' between Receivables and Sales

(in Rs. 000)

Fiscal Year	Receivable (X)	Sales (Y)	Y- (y)	Y^2	X- (x)	xy	X^2
2003/04	88039	609654	-23826.67	567710203.29	7946.33	-189334582.62	63144160.47
2004/05	124178	632114	-1366.67	1867786.89	44085.33	-60250097.95	1943516321.21
2005/06	80845	614739	-18741.67	351250194.39	752.33	-14099920.59	566000.43
2006/07	63657	621827	-11653.67	135808024.47	-16453.67	191745640.47	270723256.47
2007/08	52823	634190	709.33	503149.05	-27269.67	-19343195.02	743634901.91
2008/09	71014	688360	54879.33	3011740861.25	9078.67	498231326.89	82422248.97
Total	480556	**3800884**	**0.00**	**4068880219.34**	**0.00**	**406949171.18**	**3104006889.46**

Source: Annual Report of BNL for the Relevant Year

$$= \frac{\sum X}{n} \quad = 480556/6 = 80092.67$$

$$= \frac{\sum Y}{n} \quad = 3800884 / 6 = 633480.67$$

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

$$= \frac{406949171.18}{\sqrt{04006889.46 \times 4068880219.34}}$$

$$= 0.1145$$

The value of 'r' shows that, there is positive correlation between sales and receivables.

A regression line can be fitted to show the degree relationship between sales and account receivables. For this purpose, receivable have been assumed to be dependent on sales.

So that, the regression line of receivable (x) on sales (y) is as follows:

X- = r. (Y-)

$$= \sqrt{\frac{\Sigma(X-\bar{X})2}{n}} \qquad = \frac{104006889.46}{6} \qquad = 22744.99$$

$$= \sqrt{\frac{\Sigma(Y-\bar{Y})2}{n}} \qquad = \frac{068880219.34}{6} \qquad = 26041.25$$

Now,

$$X - 80092.67 = 0.1145\frac{22744.99}{26041.25} \qquad (Y\text{-}633480.67)$$

Or, $X - 80092.67 = 0.1(Y\text{-}633480.67)$

Or, $X = 0.1Y - 16744.603$

Thus, for Rs. 1 increases in sales, the amount receivable increases by Rs. 0.1

Again, the regression line of sales y on receivable X is as follows:

Y- = r. (X-)

So,

$$Y - 633480.67 = 0.1145\frac{26041.25}{22744.99} \qquad (X\text{-}80092.67)$$

Therefore, $Y = 0.13x + 623068.62$

4.2.5 Analysis of Correlation Coefficient between Account Receivables and Cash and Bank Balance

To find out the correlation between receivables, cash and bank balance Karl Pearson's coefficient of correlation r is determined. For this purpose account receivable and cash and bank balance are assumed to be interrelated economic variables let us assume receivables X is dependent variable and cash and bank balance are independent variables.

<div align="center">

Table 4.18

Correlation between Account Receivable and Cash & Bank Balance

</div>

(Rs**.** in '000'**)**

Fiscal Year	Account Receivable (X)	Cash & Bank Balance (Y)	X- (U)	Y- (V)	U^2	V^2	UV
2003/04	88039	5335	7946.33	-5862.5	63144160.47	34368906.25	-46585359.63
2004/05	124178	13755	44085.33	2557.5	1943516321.21	6540806.35	112748231.48
2005/06	80845	1917	752.33	-9280.5	566000.43	86127680.25	-6981998.57
2006/07	63657	35926	-16453.67	24728.5	270723256.47	611498712.25	-406874578.60
2007/08	52823	3464	-27269.67	-7733.5	743634901.91	59807022.25	210889992.95
2008/09	71014	6788	9078.67	-4409.5	82422248.97	19443690.25	-40032395.365
Total	480556	**67185**	**0.00**	**0.0**	**3104006889.46**	**817786817.6**	**-176836107.735**

Source: Annual Report of BNL for the Relevant Year

$= \dfrac{\sum X}{n}$ = 480556/6 = 80092.67

$= \dfrac{\sum Y}{n}$ = 67185 / 6 = 11197.5

$r = \dfrac{\sum UV}{U2 X \sum V2}$ $= \dfrac{-176836107.735}{04006889.46 \times 817786817.6}$ = -0.1109   0.11

$$\therefore r = 11\%$$

The value of "r" is -0.1109 shows that there is negative correlation between receivables and cash and bank balance. So that there is no extra evidence to proof that either receivable will increases cash and bank balance increases.

4.3 Analysis of Cash Flow Statement of BNL

Cash flow statement of the company significances the movements of cash in and out of company. Inflow of cash is known as source of cash and outflow is called use of cash. This statement also depicts the factors for such inflow and gets flow of cash. It virtually takes the nature and character of cash receipt and cash payments, through the basic information used in the preparation of this statement differs from that which is used in recording cash receipts and cash payments in cash inflow and outflow are explained and shown in cash flow statement before highlighting its nature and utility. The actual cash flow statement is financing activities and cash from investment activities for the FY 2061/62 to 2065/66.

Table 4.19

Calculation of Cash Flow Statement

(in Rs. '000')

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
A. Cash flows from Operating Activities						
1. Profit/(loss) before taxation	45008	45009	43876	30963	(27279)	32866
Adjustment						
Add: Depreciation	-	57330	-	-	-	-
Depreciation	55823	6041	49176	64166	60228	58420
Amortization	3045	1966	6602	503	532	640
Interest Expenses	284	3	265	1329	8875	2640
Provision for Bonus and Staff Quarter	7019	7019	6928	4889	-	-
Other non-cash expenditure	-	3485	-	2544	3989	-
Loss / profit on sale of fixed assets	(1)	-	-	-	(385)	(120)
2. Cash flow from operating before working capital Changes	111179	120853	106847	104394	45960	94446
Decrease(Increase) in current Assets	73575	24505	(117358)	22427	(63198)	(40420)
Increase(Decrease) in Current Liabilities	(55400)	(99311)	47201	46302	205820	39803
Interest Paid	(284)	(284)	(265)	(929)	(8814)	(6320)
Payment of Gratuity	(264)	(398)	(40)	(1900)	(438)	(378)
Payment of Bonus and Staff Quarter	(4701)	(4701)	(7615)	(6928)	(4427)	(4850)
Tax paid in respect of earlier year	(6300)	(633)	(556)	-	(1337)	-
Special fees paid	-	(9488)	(556)	-	-	(345)
Net Cash flow from operating Activities	**118089**	**30823**	**28214**	**163366**	**173526**	**81936**
B. Cash flow from financing activities						
Sales(Purchase) of fixed assets/investment	(108103)	(7999)	(32457)	(36433)	(25755)	(32967)
(Addition)Deletion to capital WIP	-	-	-	(176107)	(204204)	(180508)
Others (Capitalization of deferred expenses on bottles &crates.)	16001	-	-	11411	-	-
Additional differed expenditure	-	(4660)	(7595)	-	-	(5660)
Net Cash flow from investing	**(92102)**	**(12659)**	**(40052)**	**(201129)**	**(229959)**	**(137199)**

Activities						
C. Cash flow from financing Activities						
Borrowing / Re-payment of Bank loan	(25000)	-	-	72000	72000	72000
Interest Paid	(200)	-	-	(400)	-	-
Other	(368)	-	-	(172)	-	-
Dividend Distribution	-	(9744)	-	-	-	(4680)
Net cash flow from financing Activities	**(25578)**	**(9744)**	**-**	**71772**	**72000**	**67320**
Net increase / Decrease in Cash (A+B+C)	**420**	**8420**	**(11838)**	**34009**	**(128433)**	**12057**

Source: Cash Flow Statement of BNL for the Relevant Year

The actual cash flow statement is presented on the heading of cash from operating activities, cash from investing activities and cash from financing activities for the fiscal year 2003/04 to 2008/09. The above table shows that the detail calculation of cash from operating activities, investing activities and financing activities. It is seen that the amount of depreciation of fixed assets is in fluctuating trend all over the study years. Above table shows that, the current assets and current liabilities are also fluctuating trend. From this analysis, we can say that the amount of operating profit is in increasing trend except FY 2004/05, 2005/06 and 2008/09.

In investing activities, it is seen that sales of fixed assets amounts are fluctuating trend and also in the purchase of fixed assets, it is in fluctuating trend. Company sales/purchase/investments are minimum amount of Rs. 7999 in FY 2004/05 and maximum amount of Rs. 108103 in FY 2003/04. It is also fluctuating trend. Deletion to capital work in progress minimum amount of Rs. 176107 in the FY 2006/07, maximum Rs. 204204 in the FY 2007/08, Rs. 180508 in the FY 2008/09 and non or zero balance in the remaining year. Deferred expenditure is 4660 in FY 2004/05, Rs. 7595 in FY 2005/06, Rs. 5660 in FY 2008/09 and none of other years. Similarly capitalizations of deferred expenses are 16001, and Rs. 11411 in the FY 2003/04 and 2006/07 respectively and zero balance other four years. From

the table it can be seen that, the company is not issued share capital in the all study period it has fallen down in long term borrowing with company to its succeeding year. Payment or borrowings of Bank loan also fluctuate.

After the adjustment of financing items, we can conclude that BNL"s financial position is not so good. It is poor only due to inefficient cash management Corporation purchase goods both in cash and credit depends up on condition of cash balance, situation of time and nature of goods. It is found that cash management of BNL is not effective. The company is sales goods in cash and credit. The percentage of credit sales depends upon credits situation of time and nature of goods. Credit period is only fifty days provided to customers. The corporation follows telephone call and personal visit method for quick collection of account receivable. There is no systematic forecast of cash in corporation. During the study period, it seems that main sources of cash of BNL are sales of goods and loan from bank. Besides this corporation receives miscellaneous income, like interest, commission, dividend and sales of fixed assets. Corporation uses cash at huge amount for purchase of commodities paid bonus, interest, income tax, purchase of fixed assets; selling expenses etc. the corporation holds cash for transaction motives. The basic objective of the study is to have sight over "cash management" of BNL and recommended some concrete suggestions of package for the improvement in view of analysis. Due to lack of good cash management, BNL is not able to provide necessary data, except annual balance sheet and profit and loss account.

The research design chosen for this study is descriptive and analytical. The data has been derived from annual report lacking from fiscal year 2003/04 t0 2008/09. So the nature of data used for the study is secondary in nature. The data derived from annual report of BNL is presented in required tabular form and presented in the graph or bar diagram. They are analyzed by using various financial techniques

such as ratio analysis and average collection period. On the basis of financial and statistical analysis the main finding of this study is highlighted below.

4.4 Major Findings

The major findings of this study based on the analysis of available secondary data are pointed out as follows:

1. Bottlers Nepal limited doesn't have any definite policy regarding how much cash balance to hold in each period. Cash and bank balance to hold each period. Cash and balance held during different period of study were observed to be highly fluctuated and thus the fact indicates the firm to be lacking definite policy regarding how much of cash balance to hold each period.

2. Cash management in the BNL is primarily based on the practices lacking in scientific approach. A more serious aspect of cash management has been the absence of any formalized system of cash planning and cash budgeting in BNL.

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

4. Management has taken liberal credit policy to sales of goods. Hence the cash and bank balance of the study period is minimum of account receivable.

5. The average cash turnover time in a year is found 106 times which is in fluctuating trend over the study period.

6. The average inventory conversion period into cash is found more than 4 months i.e. 123 days which is faster than cash turnover time.

7. The average receivable conversation period is 48 days and average payable period is 57 days which has taken by the company for the payment of trade credit.

8. Average cash conversion cycle takes 113 days i.e. little near 4 months which is normal signal for cash management or cash collection efficiency of company.

9. No optimum cash balance is maintained. The cash and bank balance with respect to current assets has been fluctuating trend similar is the case with respect to the total assets.

10. The average cash conversion period is faster than average receivable period which is not a good signal for the purpose of managing cash.

CHAPTER - V
SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Summary

Bottlers Nepal ltd Company is one of the manufacturing and processing companies, was established on 1979 under the private company limited after the five years its convert into public company limited on which is manufacturing soft drinks under the brand name of Coca Cola Company. Its registered office is located in Balaju, Kathmandu and head office remains the same. Bottlers Nepal established as multinational company, its parent company is Coca-cola (Asia) Ltd, a company incorporated in Dubai, UAE which holds 98.16 percent shares of Bottlers Nepal Ltd. The principal activity of the company is to manufacture and sell soft drinks under registered trademark of The Coca-Cola Company. It has listed its ordinary shares at Nepal stock exchange in 1984/06/21. This corporation has growing concern of greater rational importance in the area of providing goods and services to the public at large.

It is manufacturing company and industrial enterprise. It contributes significantly to the economic development of the country. However, BNL is found to be suffering from "Cash Management". So the objective of this study is to have true insight into its "Cash Management". An effort has been made in the study to provide a possible suggestive framework for the better cash management of BNL.

This study use financial tools to accomplish the objectives. They are financial ratio, and correlations regression for the relevant years. While analyzing the management of cash in BNL, some issues and constrains have been noticed which may be described as follows:

⟩ Absence of forecast and plan. It is observed that the cash management is least concerned to forecast of cash for the coming period. The cash forecasting is completely lacking in the corporation. The fluctuating trend of cash deficit reveals the fact clearly.

⟩ The lack of accurate and proper sales forecasts is one of the important constraints that affect the financial performance of the corporation. If the corporation forecasts the expected sales accurately, it can manage the various activities accordingly. For example, it can plan for capital, investment, requirement of current expenses and inventories etc.

⟩ The quality of management itself is a scarce factor in BNL. The performance of BNL exhibits that the management lacks basic knowledge of financial management.

⟩ Restrictive credit policy is one of the important constraints that affected the sales volume of the corporations. If it adopts liberal credit policy, it can increase the sales volume and the receivable turnover by employing a very restrictive credit policy. But however, this is true up to the certain point only because such strategy lends to decrease the sales.

⟩ Due to certain constraints in management, BNL denied to provide information except balance sheet and profit and loss account, which are not sufficient for analysis of cash management.

5.2 Conclusions

In conclusion, it can be said that cash management is an important part of the financial decision making variable. Many factors or determinants such as nature of business, level of sales, credit terms, quality of customers, economic condition etc. have to be considered in cash management. Apart from the level of purchase, method of creating cash management, establish of credit terms, types of credit policy. Motives for holding cash efficiency of cash management cash cycle etc.

are to be considered. Corporation must prepare cash budget to plan for and control cash flow.

Thus, for BNL it is necessary to highlight the importance of developing appropriate strategies for cash management in respect of:

⟩ Cash planning and cash budgeting in a formal basis so as to project cash surplus or cash deficit for a period not exceeding one year and broken up into shorter intervals.

⟩ Managing of cash flows so as to accelerate the inflows and as for as possible to decelerate out flows.

⟩ Optimizing the level of cash balance by matching the cost of holding excess cash and the danger of cash deficiency.

⟩ Investing idle cash balance taking into account the cost of administering investments in marketable securities.

5.3 Recommendations

Based on the findings of the analysis and the issues and constraints mentioned above, some practicable recommendations have been provided.

⟩ **Efficient Management of Cash**

Bottlers Nepal limited should have proper cash planning to estimate the cash receipts and payments. It helps to minimize the problem of excess of deficit cash balance. Corporation should first identify the cash needs for operation. For this company should consider the various expenses it has to incur such as, purchase raw materials, payment to be made for wages, salaries, rent and power etc. In other words it should forecast the cash needs for trading expenses, administrative and selling overheads for certain period of time, say one month. After identifying the cash needs, then the corporation should estimate the cash to be received. It could be estimated with the proper budgeting of cash sales and collection of credits.

When the cash flows are forecasted, the corporation should then determine the minimum level of cash balance needed to the corporation. At the same time the seasonal requirement should also be considered.

〕 Try to Reduce Cash Conversion Cycle

Cash conversion cycle of the companies has been found to be higher. RCP, PDP and inventory conversion period have been found to unexpected period. These periods has affected for cash conversion cycle. It is recommended that companies should improve their i.e. account receivable, account payable and inventory in accordance with variables i.e. sales and cash.

〕 Try to trade off liquidity and profitability in order to increase profit.

The main objective of managing cash is to trade off liquidity and profitability in order to increase profit. By maintaining considerable liquidity position of the company should try to increase net profit.

〕 To Prepare Monthly Trial Balance Cash/Funds Flow Statements and Financial Reports

Account receivable management is one of the basic components of current assets and management should be given top priority by the top management of the company since major share of company current assets has been occupied by account receivables. Account receivable can be managed efficiently by designing an appropriate receivable management programme. This programme has two main approaches in the first place, the company should try to minimize account receivable by selling only in cash terms secondly, it should try to maximize collection efforts by different process restoring to various measures. That is to determine appropriate credit policy.

Not only that the BNL should follow suitable credit terms, specially providing discount that is attractive to encourage payments earlier and at the same time make a comprehensive study of character, capacity, capital, collateral and conditions of all those customers or institutions that request credit from the company.

）Invest the Surplus Cash in Profitable Opportunities

Company should manage its cash affairs in such a way as to keep cash balances at a minimum level and to invest the surplus cash funds in profitable opportunities.

）Adopt Effective Credit Policy

The company should have suitable credit policy to handle the cash management effectively. It should adopt liberal credit policy to increase the sales. Next, it should adopt strength credit policy especially for its staff and workers for effective credit collection performance as low total receivable. One of the reasons of lower turnover and high collection period arise due to more advances to company's employees.

Company should try to maintain considerable liquidity position. So that company may be able to meet current obligation.

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Website

www.botllersnepal.com

ANNEXURE

Least Square Spreadsheet between FY and Cash and Bank Balance

Fiscal Year (X)	Cash Balance in Rs (000)(Y)	X- $\bar{X}$	(X- $\bar{X}$)^2	XY
2003/04 (1)	5335	-2.5	6.25	-13337.5
2004/05 (2)	13755	-1.5	2.25	-20632.5
2005/06 (3)	1917	-0.5	0.25	-958.5
2006/07 (4)	35926	0.5	0.25	17963
2007/08 (5)	3464	1.5	2.25	5196
2008/09 (6)	6788	2.5	6.25	16970
$\bar{X} = \dfrac{\Sigma X}{N}$	$\sum Y = 67185$	$\sum X - \bar{X} = 0$	$\sum (X - \bar{X})2 = 17.5$	$\sum XY = 5200.5$

Source: Annual Report of BNL for the Relevant Year

$\bar{X} = \dfrac{\Sigma X}{N} = 21/6 = 3.5$

$a = \dfrac{\Sigma Y}{N} = 67185/6 = 11197.5$

$b = \dfrac{\Sigma XY}{\Sigma X2} = 5200.5/17.5 = 297.17$

$Y_c = 11197.5 + 297.17\ X$

Correlation 'r' between Actual Sales and Cash Balance

(in Rs. 000)

cal Year	Actual Sales(X)	Cash Balance(Y)	X- $\bar{X}$ (U)	$\cdot \bar{Y}$ (V)	U²	V²	UV
003/04	09654	5335	23826.67	5862.5	67710203.3	34368906.25	39683852.875
004/05	32114	13755	-1366.67	2557.5	1867786.89	6540806.35	-3495258.525
005/06	14739	1917	18741.67	9280.5	351250194.4	86127680.25	73932068.435
006/07	21827	35926	11653.67	24728.5	135808024.5	11498712.25	288177778.595
007/08	34190	3464	709.33	7733.5	503149.0489	59807022.25	-5485603.555
008/09	88360	6788	54879.33	4409.5	3011740861	19443690.25	241990405.635
Total	800884	67185	0.0	0.0	4068880219	317786817.6	225533125

Source: Audited Balance Sheet of BNL for the Relevant Year

$$\bar{X} = \frac{\sum X}{N} = 3800884/6 = 633480.67$$

$$\bar{Y} = \frac{\sum Y}{N} = 67185/6 = 11197.5$$

$$r = \frac{\sum UV}{\sqrt{\sum U2 \, X \sum V2}} = \frac{225533125}{\sqrt{4068880219 \times 817786817.6}} = 0.1236 \quad 0.12$$

$$\therefore r = 12\%$$

We have standard deviation of actual sales X

$$\sigma X = \sqrt{\frac{\sum (x - \bar{x})^2}{n}} = \sqrt{\frac{4068880219}{6}} = 26041.25$$

Similarly, standard deviation of cash balance Y

$$\sigma Y = \sqrt{\frac{\Sigma(Y-\bar{Y})^2}{n}} = \sqrt{\frac{817786817.6}{6}} = 11674.67$$