# CHAPTER- I

# INTRODUCTION

## 1.1    Background of Nepalese Export Business

The study is concentrated in analyzing the cash management system in Nepalese Export companies. For this reason, Carpet industries are taken for the purpose of the study.

### 1.1.1   A History of Carpet in Nepal

The art of weaving is an old traditional in Nepal, especially in the mountainous region of the country. Radhi, pakhi, bakkhu, darhi(with pile) are well known Nepalese products produced using indigenous wool in this region. The marketing of these products was confined to the domestic market.

The development of an export quality carpet was initiated with the influence of Tibetan refugees in the early sixties. Credit goes to the Swiss Association for technical Association (SATA) for their contribution, in the development of the carpet industries in Nepal through financial and technical support to the Tibetan refugees' resettlement programs. In the beginning, it was lunched as a source of livelihood for the Tibetan refugees and marketing was limited to tourists visiting the Nepal. Efforts to gain access to the international market arena paid-off in 1964 when the first commercial shipment left to Europe, namely Switzerland. With vision and entrepreneur skill, it transformed into a nationally recognized commercial commodity and remains the most important export product from Nepal.

At present, 95 percent of the production of carpet is concentrated in the Kathmandu valley with the remaining 5 percent spreading over number of other district of the country.

"Export enterprises are autonomous bodies which are owned and managed by the partner or proprietor in present context of Nepal and which provide goods and services for a price. The ownership with the full responsibility and tax liability."

Export enterprises have been granted operating and financial autonomy so they are autonomous in their state of affairs and personnel issues. On the other hand, they are funded by personnel fund and in capital investment decisions and the interest of public welfare and national policy issues the government and parliament have controlled them so they are accountable to the public through government and parliament. For this reason export enterprise has an operating flexibility as private enterprise and social motive as government policy towards social welfare. Thus, it is liked to say that balancing autonomy and accountability is the main foundation of emerging  Export enterprise in the country.

## 1.1.2   Export Enterprises in Nepal

Export enterprises in Nepal constitute a vital instrument for the socio-economic development of the country. It enjoys a strategic and crucial position in our mixed economy. They have been established in many sectors for the overall development of the country with different goals and objectives. Since 1964, Nepal has witnessed growth and development of Export enterprises. The government of Nepal has to play a vital role in the development of the country for this purpose, makes massive investment to create necessary infrastructure and run some of the large manufacturing industries to the people. (Central Carpet Industries Association, 2007: 15)

Nepal started its planned economic development in 1956 with launching of first five-year plan. Since then the number of Export enterprises has been increased substantially in the various field of national economy. There are more then 200 Export enterprises before 1998 in the field of carpet and pashmina and now there are only 120 enterprises in this sector. (2006/07,Central Bureau of statistics)

**Export Enterprises can be classified as follows**
>    i. Manufacturing enterprises
>    ii. Commercial enterprises
>    iii. Financial enterprises
>    iv. Public enterprises
>    v. Development or service enterprises

## 1.1.3 Role of Export Enterprises in Nepalese Economy
>    i. Accelerate the rate of economic growth

ii. Development of infrastructure

iii. Success of economic planning.

iv. Regional and Balanced development

v. Supply of essential commodity

vi. Contribute to national fund.

vii. Generate employment opportunities.

viii. Attaining social justice and social welfare.

ix. Strengthening and maintaining economic stability.

x. Initiate research and development activities.

## 1.1.4 Insight into Nepalese Export Enterprises

Owing to geographical diversity ranging from the coldest Himalayas to the hottest Terai, Nepal is rich in several kinds of handicraft products. However, the concept of producing modern handicraft locally in the country flourished only since 1964 A.D., while the industries were growing and maturing, the need for a common platform to co-ordinate policies and activities between the Government and the industry emerged. Hence, the concept in starting steps toward the certain of the association come in 1978, however, a fully representative association with a complete working body had been introduced only after the formation of the Central Carpet Industries Association (CCIA) in July 1990.

**Aims and Objectives of Central Carpet Industries Association CCIA**

1. To bring together all the scattered carpet industries and promote organized efforts for betterment of the carpet industries.
2. To maintain and ensure a sustained supply of raw materials for the carpet industries.
3. To promote the market potentialities of the carpet and safeguard if from market crisis.
4. To stabilizes the market price and quality of raw wool used in carpet.
5. To check all the activities that hampers the quality of Nepalese woolen carpet.
6. To work as a negotiator in the dispute of the member industries.
7. To provide advisory services to the government and lobby as and when required in formulation and execution of carpet related policies and programs.

**Sub Committees Of CCIA**

1. Special committee of Land management and Building construction.
2. Industries promotion committee
3. Internal seminar and publication committee.
4. Training and cooperative committee
5. Labors and Quality control committee
6. Banking and financing committee
7. Child care and education center committee

Nepalese carpet has earned an excellent reputation in the European and American markets. Through the export of carpet from Nepal has crossed the border of more than 60 countries, the main market still remains Germany.

In the 1990 decades Nepalese carpet industries run very efficiently and play the key role for the foreign currency. At those decades it took place 2$^{nd}$ position in the national income but afterwards it is in quite shadow due to case of child labor issue. Since 1992, ILO/IPEC has been raising awareness on the need to eliminate child labor, and hundred of action programs have been put in place in child labor sector of the Nepal. ILO convention and concerning the prohibition and immediate action for the elimination of wrest forms of child labor number 182 came into force on November 2000 in Nepal. There is an urgent eradication of the worst forms of child labor into a new global cause. This cause must be expressed to those who exploit children, forcing them into slavery, indenture labor, debt bondage, prostitution, pornography, war etc.

## 1.1.5 Promises and Challenges

As the carpet factory is labor intensive industry based on local labor and technique, it can be maintained as the permanent sources of employment and the foreign currency for the country.

For this purpose, timely amendments on the policy like accessible funding, facilities for import of raw materials and export of product, legal protection against foreign product inside the country etc should be co-coordinated and extended by the government agency itself.

The movement against child labor raised by Nepalese and international in relation to the carpet naturally impacted negatively to the international market, but this movement could have been better if based on the study in relation to economic without bias so as not to create misimpression consumer's interest.

Hence to sustain the establishment of the carpet industry with better quality carpet. Production Nepalese Entrepreneurs. Industerialist and Business people should be well aware and must come forward with the reliable and healthy industrial atmosphere of (a) non use of child labor (b) welfare activities to child wards of labor (c) abandon of machine made woolen threads (d) establishment to tanning institutes for carpet productions.

Since last few years, we have recession on carpet market due to reasons above mentioned specially the propaganda of the child labor. Previously to this, every second or third family have two to three carpet looms installed in the space available in their home in Kathmandu valley, the central carpet production and business market.

As Nepal is land- locked country, the imported wools have to be brought along a long land –route from via India seaports of Calcutta and finished product has to be air lifted with more expenses to the European market for timely delivery. This expensive means of transportation make the carpet relatively costlier in the every competitive international market.

As there exists on other economical means of transportation expenses that incurred has to be born. The only alternate way out is the most economy in production line which the manufacturers entrepreneurs and businesspeople are to take it as the challenge in order to survive themselves and ultimately the country's economic.

### 1.1.6   The Main Aims of Carpet Export Industries

1. To produce and distribute safe, efficacious and quality Carpet in reasonably fair prices to the international in a way that will lead the country towards       self-sufficiency in essential handicraft.

2. To produce new varieties of carpet as per the market demand and deliver them in time.

3. To help the other local industries by using their products in production and packaging areas.

### 1.1.7  Types of Carpet

Carpet exporter export mainly four kinds of carpet in different size and different quality using different type of raw materials, such as 100 knots 60 knots 80 knots and 150 knots .The rates are depends upon quality and use raw materials .The process begins with wool purchase then balling, weaving, trimming, washing, stretching and finishing and lastly packaging after then it is proceed for selling and distribution through cargos they further send them either from sea or air. In the process of selling and distribution exporter have to pay custom duties, chamber fees and clearing and forwarding charges through the cargo. This is a very long process and quite expensive too, although carpet industries plays very well role in national income and employment.

**Introduction to the Sample Industries**

**Nirvana Carpet Industries**

Nirvana carpet industry is situated in jorpati, Katmandu. Nirvana Carpet Industry is one of the leading carpet industries in Nepal that is famous for its high quality and premium Nepalese woolen carpet. Established in the June month of the year 1992 under the small and cottage industry act in jorpati Kathmandu. Nirvana carpet is one of the carpet manufacturer as well as exporter. More then 150 weavers are working since last few years. In the present context, Nirvana carpet present stiff competition for export companies and export its product in different countries. It's issued and paid up capital is Rs.15, 00,000.

**Snow Land Art Carpet Industries**

The Snow land carpet industry pvt. Ltd was officially established in the year 1990. It produces high quality Nepalese \ Tibetan woolen carpet according to the customers demand and choice. It is one of the leading manufacturers and leading exporters in Nepal. It is situated in Boudha, Tusal, kathnandu. It is a proprietorship industries with issued and paid up capital of 83, 06,263. And 500 employees are directly engaged in this industry. It exports different type of carpet in European and American market. Snow

Land Art carpet industry is famous for 60 knots 80 knots, 100 knots and 150 knots carpet.

## 1.2  Statement of the Problems

The down-falling trend of export enterprises, especially the industrial enterprises or the manufacturing enterprises has been the everlasting problem of our country. Hardly a handful of these export manufacturing enterprises have proved satisfactory, rest of all being a burden to the government. In the name of economic liberalization, many of these companies are either privatized or are in the process of privatization to get rid of the burden. The annual report of financial status of export enterprises, the economic survey, FY 2002/03 to 2006/07 conducted by The Government of Nepal, Ministry of finance clearly mentions about the inefficiency of export enterprises.

Cash Management; Most Intricate and challenging area of modern corporate finance
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 that the portion of its total current assets which is put to variable operative purpose and has the characteristics of greater divisibility, 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 itself a decision making area within the framework of the overall current assets management.

Cash management has been the most intricate and challenging area of modern corporate finance as much as the management always faces a trade-off between the liquidity and profitability of he firm. Though most of the enterprises in Nepal have been well recognized the importance of proper cash management, they are still facing the problem of cash management.

Inefficient Practice of Cash Management in Nepalese exports Enterprises:
Cash Management in the export 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 planning and cash budgeting in many

of enterprises do have the practice of forecasting cash requirement. 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 in the account potential benefit of investing surplus and marketable securities. Those, which did, failed to consider the cost of administrating such investment.

Nepalese export enterprises never thought of the source of current assets i.e. cash and usually depend on Nepal Government for it. Some of PEs has used depreciation, fund and utilized surplus to overcome the scarcity of cash. Thus, the existing problems in the area of finance are mostly directed towards the management of cash rather than in any other area.

Nevertheless, one of the major influencing factors, the political factor can no doubt be considered a hindrance for such shortcomings in cash management. Likewise, in spite of having technical capability, the underlying corrupt attitudes of the individuals of the public enterprises are no doubt another reason for not implementing the desired methodology of cash management. However, this study ignores the above mentioned influencing factors and assumes that political system has no effect upon any kinds of decision in the firm and the individuals employed in the firm are honest in fulfilling their duties.

In order to remedy the current problem of cash management in public enterprises studies and research are to be conducted to find out the reality. So, this study would be one of those efforts and thus it will examine the cash management practices being employed in Nirvana carpet industries and Snow land art carpet industries Nepali carpet and pashmin exporter.

## 1.3    Significance of the Study

One of the major responsibilities of management is to plan; control and safe guard the resources of the enterprises. This study focuses on the cash planning and control of the cash inflows (i.e., cash received) and cash outflows (i.e. payment of cash). The planning and controlling of the cash inflows, cash outflows and the related financing is important in all enterprises. The cash budgeting is an effective way to plan and control of the cash flows and effectively use excess cash.

"A primary objective is to plan the liquidity position of the company as a basis for determining future borrowings and future investments. For example excess cash is not invested, incurs an opportunity cost that is loss of the interest. The timing of cash flows can be controlled in many ways by management, such as increasing the effectiveness of credit and collection activities. Making payment by time draft rather than by cheque, making payments and the last day of discount periods matching payments, and giving discount on cash sale. Cash management is important in enterprises, whether large or small. Many lending agencies require cash flows projections before granting loan." (Glenn A, Welch, Ronald W. Hilton, Paul. N. Gorden, 1986:236)

## 1.4    Objectives of the Study

The present study has been conducted to examine cash management of export manufacturing enterprises of Nepal, on the basis of the case study of carpet and pashmina industries, the modern industries of the country.

It focuses on the investment decision of the industries and in particular the cash management in short run business operation of the firms, i.e. management of the individual current assets like; cash and bank balance, receivable and inventory in the short-run.

The specific objectives of the study are as follows:

1. To examine and evaluate the cash management practices in export industries.

2. To examine the liquidity position of export industries.

3. To examine the cash flow statement of export industries.

4. To analyze the allocation and expenditure of cash of export industries.

5. To suggest and recommend on the basis of major findings.

## 1.5    Limitation of the Study

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

1. The study assumes that the impact of political factors of the country such as; change in government, any sort of political involvement in the firm, if prevalent, has insignificant or no effect upon the financial decisions.

2. The study is mainly dependent on secondary data, covering data of past five years only.

3. Carpet industries have been chosen as sample from among various manufacturing enterprises. Hence, the findings couldn't be extensively generalized to all the existing public enterprises of the country.

4. Statistical tools and financial ratio analysis have only been used to analyze quantitatively.

## 1.6    Organization of the Study

The study has been organized into five chapters, each devoted to some aspect of the study on "cash management" of Nepalese Carpet Industries. The titles of these chapters are as follows:

### Chapter 1: Introduction

Background information on the subject matter of research undertaking has been presented under this section to provide a general idea of its history. So, this section includes a brief introduction to export industries in Nepal, role and objectives of export industries in Nepalese economy, then proceeding through an updated information of existing Nepalese Carpet export industries and introduction to carpet field. Likewise, the statement of the problem, objectives of the study comes next followed by scope and limitation of the study.

### Chapter 2: Review of Literature

This cheaper includes the reviews of relevant previous writing and studies to find the existing gap. Review of textbooks, dissertations/ theses has been included.

### Chapter 3: Research Methodology

In this chapter, the method employed to gather data and the tools used in its interpretation has been described under the headings; research design the population and sample, nature and sources of data and financial and statistical tools for analysis of data.

Sources of data: - Primary as well as secondary.

**Chapter 4: Data Presentation, Analysis and Major Findings**

This chapter is the one of the most important and core of the thesis. Since, it consists of systematic presentation and analysis of financial statements employing financial and statistical tools.

Financial tools :- Ratio analysis, Cash Flow Analysis.

Statistical tools: - standard deviation, least square method,
                    Coefficient of correlation, Regression analysis.

**Chapter 5: Summary, Conclusion and Recommendations**

This chapter is also important part of the study where major findings has been summarized, viable recommendations suggested and conclusion drawn.

# CHAPTER- II
# REVIEW OF LITERATURE

Review of literature is an essential part of all studies. It is way to avoid investing problems that have already been definitely answered. It refers to the reviewing of the past studies in the concerned field such studies could be theses that are written earlier, books, articles, and or any sort of other publications concerning the subject matter, which were written prior by a person or an organization. The purpose of literature review is, thus, to find out what research studies have been conducted in one's chosen field of study, and what remains to be done.

## 2.1 Conceptual Framework
### 2.1.1 Meaning of Cash Management

Cash is the most important current assets for the operation of the business firm. It is an idle and non-earning asset. 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 also included in cash. Managing cash flows is an extremely important task for financial managers, because the primary goal of a financial manager is to maximize firm's value and is based on cash flows. The financial manager's task is to determining how much cash a firm should have on hand at any time to ensure normal business operations continue without interruption. If a firm holds more cash than it needs, share-holder's returns will not be maximized. Therefore, for its smooth running and maximum profitability, proper and effective cash management in business is of paramount importance. So, the management of current assets and current liabilities of the business, which is necessary for day to day operation. It is concerned with the decision regarding the short-term funds influencing overall profitability and risk involving in the firm. Thus, management of cash has been regarded as one of the conditioning factors in the decision-making.

### 2.1.2 Functions of Cash Management

1. To cash planning: Cash flow (inflows and outflows) should be planned to project cash surplus or deficits for the period. Cash budget is prepared for this purpose

2. To maintain cash and marketable securities in amounts close to optimal level: The firm should try to maintain the appropriate level of cash balance. The cost of excess cash and the danger of cash deficiency should be matched to maintain the optimal level of cash balances.

3. To design and managing cash flows: The cash flows (inflows and outflows) should be properly managed. The inflows of cash should be decelerated as possible.

4. To place the cash and marketable securities in the proper institutions and in the proper forms: The idle cash or precautionary cash balances should be properly invested in earn profits. The firm should take the appropriate decision about the division of such cash balances between bank deposits and marketable securities.

## 2.1.3 Objectives of Cash Management

The basic objectives of cash management are two-fold, (a) meeting payment schedule and (b) minimizing funds committed to cash balances. These are conflicting and mutually contradictory and the task of cash management is to reconcile them.

### (a) Meeting Payment Schedule

In the normal course of business, firms have to make payment of cash on a continuous and regular basis to suppliers of goods, employees and so on. At the same time, there is a constant inflow of cash through collections from debtors. To meet the payment schedules, a firm should maintain an adequate amount of cash balance. The advantages of maintaining adequate cash balances are, (i) the relationship with the bank is not strained; (ii) it prevents insolvency or bankruptcy arising out of the inability of a firm to meet its obligations; (iii) it helps in fostering good relations with trade creditors and suppliers of raw-material, as prompt payment may help their own cash management, (iv) a cash discount can be availed of if payment is made within the due date; (v) it leads to a strange credit rating which enables the firm to purchase goods on favorable terms and to maintain its line of credit with banks and other sources of credit. (vi) To take advantage of favorable business opportunities that may be available periodically; and (vii) finally, the firm can meet unanticipated cash expenditure with minimum of strain during emergencies, such as; strikes, fires, or a new marketing campaign by competitors.

**(b) Minimizing Funds Committed to Cash Balances**

The second objective of cash management is to minimize cash balances. In minimizing the cash balances, two conflicting aspects have to be reconciled. A high level of cash balances will, as shown above, ensure prompt payment together with all the advantages. But it also implies that large funds will remain idle, as cash is a non-earning asset and the firm will have to forego profits. A low level of cash balances, on the 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. (Khan, M.Y and Jain, P.K, Financial Management, 1986: 663-664)

## 2.1.4 Efficiency of Cash Management

Cash use a number of functions as it makes payment possible. It serves to meet emergencies. But if cash is kept idle it contributes directly nothing to the earning of the corporation. As such corporation must adopt such a Policy that optimum cash management possible. The financial manager of the corporation should try to minimizing the corporations holding of cash wide still maintaining enough to ensure payment of obligation. For improving the efficiency of cash management, effective method of collection and disbursement should be adopted. Some methods for efficiency of cash management are briefly described below.(Dr. Manoher Krishna Shrestha, Reading in financial management, 1982: 142)

### 1. Speedy Cash Collections

A firm can conserve cash and reduce its requirement for cash balance if it can speed-up its cash collection. Reducing the lag for gap between the times a customer pays his bill can accelerate cash collection and the time the cheque is collected and funds become available for use. Within this time gap, the delay is caused by the mailing time. The amounts of cheques sent by customers but not yet collected are called deposit float. The greater the deposit floats, the longer the time taken in converting cheques into usable funds.

### 2 .Concentration Banking

Concentration banking is a system of operating through number of collection centers, instead of a single collection center centralized at the firm head office. To this system, the firm will have a large number of bank accounts operated in the area the firm its branches. All branches may not have the collection centers.

The collection centers will be required to collect cheques from customers and deposit them in their local bank accounts. The collection center will transfer funds above some pre-determined minimum to a control generally at the firm's head office, each day. A connection bank is one where the firm has a major bank account usually the disbursement.

### 3. Slowing Disbursement

Apart from speedy collection of account receivable the operation cash requirement can be reduced by slow disbursement of account payable. It may be recalled that a basic Strategy of cash Management is to delay payment as long as possible without imparting the credit rating of the firm.    In fact, slow disbursement represents a source of funds requiring no interest payments. There are some technique to delay payment; avoidance of early payment, centralized disbursement, floats and accruable. (Saksena, 2004:142-143)

### 4. Using Float

Float is the difference between the balance shown in a firm (or individuals) check book and the balance on the bank's records. Firms' not float is function of its ability to speed-up and to slow down collections and checks written (disbursement float)

### 5. Transferring Funds

A transferring fund is a system for moving funds among accounts at different banks. There are two principal method- wire transfer cheques. With an electronic depository transfer, funds are immediately transferred from one bank to another. With an electronic depository transfer cheque (EDTC) arrangement in the movement of funds, an electronic cheque image is processed through an automatic clearing house. The funds become available on business day later. From small transfers, a wire transfer may be too costly.

### 6. Overdraft System

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

### 2.1.5  Different Techniques of Cash Management
#### 1. Cash Budget

The cash budget shows the firm's projected cash inflows and outflows over some specified period. It is the most significant device to plan for and control cash receipt and payment. It provides much more detailed information concerning a firm' future cash flows. It is the most important tools for managing cash. It is useful in determining when cash surpluses or shortages will occur. Plans can then, be made to borrow to cover shortages or to invest surpluses.

#### 2. Cash Planning

Cash planning can help anticipate future cash flows and needs of the firm and reduces the possibility of idle cash planning is a technique to plan for and control the use of cash. The forecasts may be based on the present operation or anticipated future operation. Cash plan are very crucial in developing the overall operation 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.(I.M Pandey,Financial Management : 843)

#### 3. Long-term Cash Forecasting

Long-term cash forecasting are prepared to give an idle of the company's financial requirement of distant future. Once a company has developed long term cash forecast, it can be used to evaluate the impact of say new product development on the firm financials condition three, five or more years in future. The major uses of the long-term cash forecast are company's future financial needs, especially for its working capital requirements, to evaluate proposed capital projects and it help to improve corporate planning. Long term cash forecasting not only reflects more accuracy the impact of any recent acquisitions but also foreshadows financing problems, these new additional may past for the company.

#### 4. Short-term Cash Forecasting
There are most two common used methods of short-term cash forecasting are as follows:

#### a. Receipt and Disbursement Forecasting:
The prime aim of receipt and disbursement forecasts is to summarize these flows during a predetermined period. In case of those companies where cash items of

income and expenses involve flow of cash; this method is fovoured to keep a close control over cash.

**b. Adjusted Net Income Method**

This method of cash forecasting involves the tracing of working capital flows. Sometime, it is also called the sources and uses approach. Two objectives of this method are; to project the company's need for cash at some future date and to show whether the company can generate this money internally or not, how much give will either borrow or rise in the capital market.

## 2.1.6 Determining the Optimum Cash Balance

Financial manager responsibilities are to maintain a sound liquidity position of the firm, so that dues may be settled in time. The firms need cash not only to purchase raw materials and pay ways but also for payment of dividend, interest, taxes and countless other purpose. The test of liquidity is really the availability of cash to meet the firm obligations when they become due. Thus, the cash balance is maintained for transaction purpose and an additional amount may be maintained as a safety stock. The financial manager should determine the appropriate amounts of cash balance, a trade-off between risk and return influences such a decision. If the firm maintains a small cash balance, its liquidity position become weak and suffers from a capacity of cash to make payment. But investing released funds in some profitable opportunities can attain a higher profitability. If the firm maintains a high level of cash balance it will have a sound liquidity position but forego the opportunity to earn interests. Thus, the firm should maintain an optimum cash balance to find out the optimum cash balance the transaction costs and risk of too small a balance should be matched with the opportunity costs of too large a balance. The figure shows this trade-off graphically.

**Figure.No-1 Determination of optimum cash balance:**
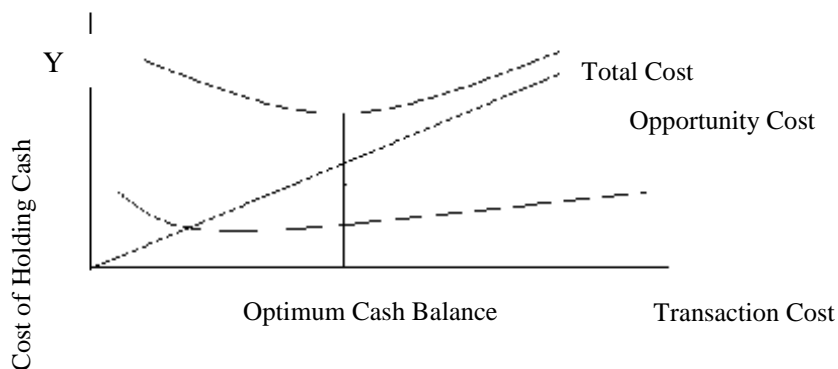
## 2.1.6.1 Optimum Cash Balance Under Certainty; Baumol's Model

In view of minimizing the opportunity cost of holding cash and maximizing the return on the available funds, the cash balance should be maintained at a minimum level and the funds not required firm immediate use be invested in the marketable securities. Baumol model is one of the methods that can be used for this purpose. Baumal mode is based on the assumptions that;

1.  The cash is used at a constant rate,

2.  The periodic cash requirements is more or less and

3.  There are some costs such as opportunity costs that increase and other costs such as transaction costs that decrease as cash balance increase.(Baumol W.J, M.Y Khan and P.K Jain, 1986: 664)

Because of the assumption (1) and (2) the graphical representation of cash position looks like as follows:

**Figure.No-2 Baumol's Model for Cash Balance**
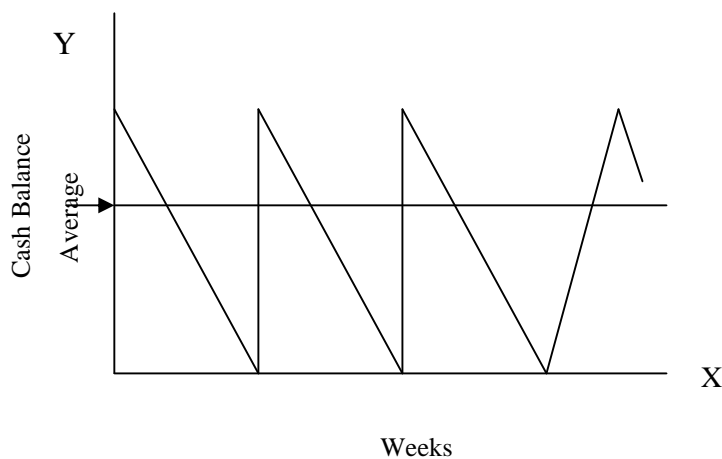


Given its assumptions, the model prescribes an optimal size of cash balance and the optimal size of account or borrowing. What matter for a firm is the total of opportunity cost and the transaction cost? Therefore, the objective of this model is to minimize the total cost.

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

**Figure.No-3 Relationship between average cash balance and cash maintain:**
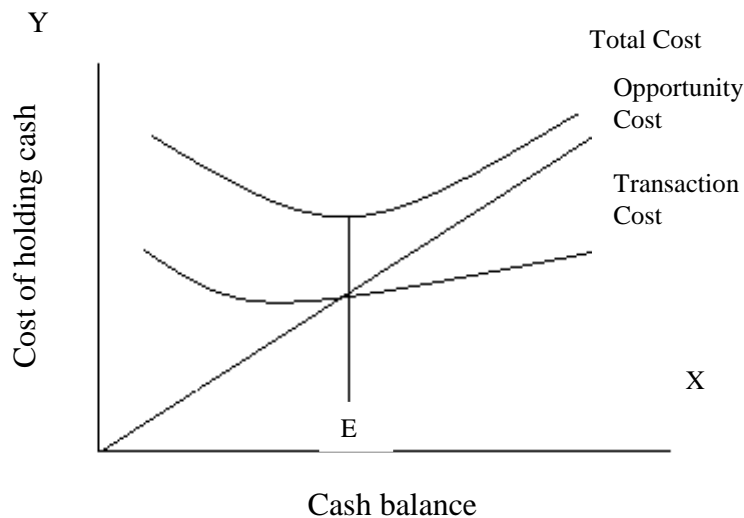


Cash balance

**2.1.6.2 Optimum Cash Balance Under Uncertainty; The Miller-Orr Model**

The limitation of the Baumol model is that it does not allow the cash flows to fluctuate. Firms in practice do not use their cash balance uniformly nor are they able to predict daily cash inflows and outflows. The Miller-Orr model cash flow variation. It assumes that net cash flows are normally distributed with a zero value of mean and a standard deviation. As shown in figure below, the Miller-Orr model provides for two control limits- the upper control limit as well as lower control limit and return point. If the firm's cash flows fluctuate randomly and hit the upper limit, then it buys sufficient marketable securities to come back to a normal level of cash balance (the return point). Similarly, when the firm's cash flows wander and hit the lower limit, it sells sufficient marketable securities to bring the cash balance back to the normal level (the return point). (Miller .H

and Orr. D.A model for the demand for money by firms 1974 :178, 31)



Time
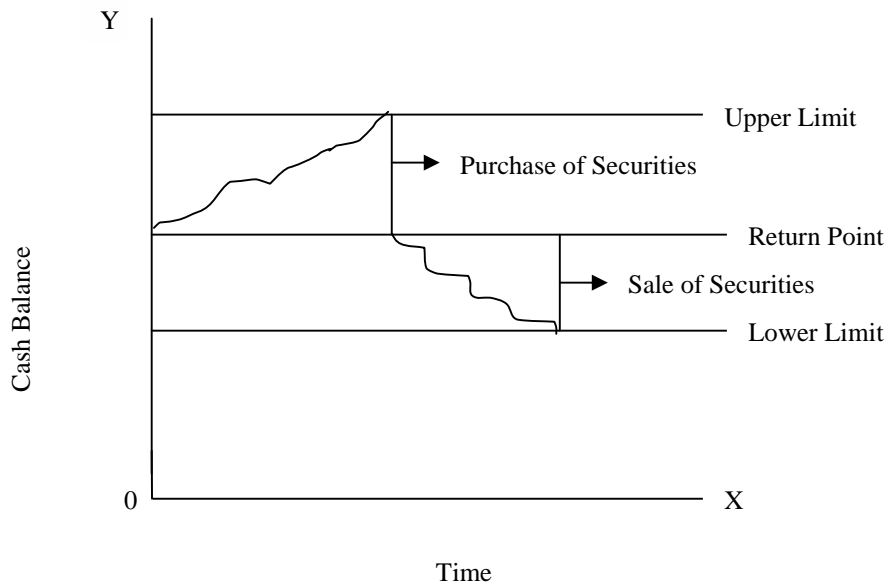
## 2.1.7  Motives for holding Cash

The firm holds cash for various motives, they are;

**1  Transaction Motives**

The principle motive for holding cash is to conduct day to day operations. A cash balance associated with routine payments and collections. Like payments of purchases, labour, taxes, and dividends etc. Likewise, in the course of daily business transactions, cash are generated from sales of goods or services, return on outside investments etc.

**2  Precautionary Motives**

Cash held in reserve fro random, unforeseen fluctuation in cash inflow and outflow. For example; flood, strike, inefficiency in collection of debtors, cancellation of order failure of important customers, sharp increase in cost of raw-materials etc.

**3  Speculative Motives**

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

4 **Compensating Balance/Compensative Motives**

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

Out of the four motives for holding cash, the most important ones are the transaction motive and the compensation motive. This is because precautionary balance can be met by short-term borrowings and business firms normally do not speculate and thus doesn't require speculative balances.

## 2.2    Review of the Nepal Carpet Directory

Review of economic survey (2002/03, 2003/04 2004/05 2005/06 and 2006/07). The latest annual report on financial status of public enterprises (PES) published by Carpet and Wool Development Board has further highlighted the darker side of these sector owned enterprises compared to previous financial performance.

As regards to the financial performance PES, most of them have incurred operating losses. In FY 2003/04 aggregating Rs.  1.61 billion, mainly due to operating loss of Rashtriya Banijya Bank amounting to Rs. 3.25 billion. During this period, profit level of public utility enterprises has been positive, losses of service and social sector has transformed into profit. Operating losses of PES belonging to industrial and trading sectors, however, has gone up. For instance, profit level of PES like Janakpur cigarette Factory, Industrial District Management Ltd, Nepal Telecom Company, Rashtriya Beema Sanstha and Citizen's Investment Trust have been going up. Similarly, Nepal Transit and warehousing management company, Royal Nepal Airlines, Nepal Television, Nepal Industrial development Corporation are making operating profits from losses in FY 2003/04. At the same time, losses of Dairy Development Corporation, Royal Drugs Ltd and Agricultural Inputs co. have come down. Aggregate operating profit of PES in FY 2004/05 is estimated to improve further totaling Rs. 3.89 billion. The reason behind this optimism is reduction in losses of trading sector, recovery of loss-making financial sector into profit-making one, and increase in the profit of public utility sector. In FY 2002/03, net capital investment in the PES totaled Rs. 150.09 billion, which dropped to Rs. 97.23 billion in FY 2003/04. The reason for this drop in net capital investment is the

decline in investment level in Public utility and financial sectors. Such investment in FY 2004/05 however, is estimated to reach Rs. 128.56 billion because of reversal of FY 2002/03 capital investment scenario. Net capital investment or profit ratio in FY 2002/03 was negative 3.65% which improved a little to minus 1.66% in the following year. The ratio is estimated to further improve into positive by 3.8% in F.Y. 2004/05. These above literature reviews indicated that almost all of the public enterprises are operating under loss. The financial performances of this PES have been seen disappointing. Cash management is no doubt an internal part of finance functions, and research undertaking on cash management function is one of the rarest undertakings as seen in T.U. Central Library.

## 2.3 Review of Books

In this section an attempt has been made to review some book on financial management, which deals with the management of cash.

1. The well known professor Weston and Brigham have given some theoretical insight into the cash management after their various studies on it.  The bond conceptual findings of their studies provide sound knowledge and guidance for the future studies in the field of management. Cash management in any enterprise and naturally to this study as well. They explain in the beginning, the motives for holding cash specific advantage of adequate cash, synchronization of cash flows, expending collection and cheque clearing, using float, cost of cash management determining the minimum cash balance, compensating balances overdraft system cash management, management of account receivable credit policy, evaluating changes in credit policy. **(Weston J. Fred and Brigham Eugene, "Managerial Finance." 1974).**

2. From the book entitled 'financial management' written by M.Y. Khan and P.K. Jain, cash management is one of key areas of 'working capital management'. Apart from the fact that it is the mot liquid current assets, cash is the common denominated to which all current assets, can be reduced because the other major liquid assets i.e., receivables and inventory get eventually converted in cash. This underlines the significance of cash management. **(M.Y. Khan and P.K. Jain 1986).**

3. For the cash management, a well –known Indian professor I. M. Pandey has described some conceptual ingredients, which are based on his various research studies. We can learn lesson from it and helpful for this study indeed. He has

described various except of cash management which are as follows; fact of cash management, motives for holding cash, cash forecasting and budgeting, managing the cash flows, counting disbursement, determinant of the optimum cash balance.

4. We also received some theoretical concept on the component of cash management from Van Horne books. He has categorized the various component of cash management. These are the functions of cash management; managing collection, transferring funds, concentration banking, lock-box system and other procedures, control of cash disbursements, payroll and dividend disbursements, zero balance account, electronic fund transfer, balancing cash and marketable securities, model for determining optimal cash.

## 2.4 Review of Theses/Dissertations

In this section the review of thesis relating to cash management have been considered. There were only few theses/dissertations written on cash management when browsed through computer records of theses reports presented earlier in Tribhuvan University Central Library.

One of these thesis report reviewed was presented by Mr. Bijaya Pradhan in 1997, entitled "A study of cash management of salt trading corporation Ltd", as partial fulfillment of the requirements for the degree of master's of business administration. The thesis was based on the secondary data of the company for the past five years.
The major finding of his study has been presented as under;

    a.  Salt trading corporation Ltd could not make the best use of available cash balance prudently.

    b.  The cash collection efficiency in this corporation is very low.

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

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

    e.  No optimum cash balance is maintained.

Mr. Bijaya Pradhan has provided some recommendations to improve cash management.

    i.  Efficient management of cash.

ii. Design effective account receivable management.

iii. Adopt effective credit policy.

iv. Maintain optimum cash balance.

v. Prepare cash budget.

vi. Invest in marketable securities.

Another thesis report reviewed was presented by Mr. Naresh Kunwar, entitled 'A Study on Working Capital Management of Pharmaceutical Industry of Nepal with Special reference to Royal Drug Limited' presented as partial fulfillment for the requirements of the master's of business administration in the year 2000.

Major findings of his research work were;

(a) Company is following conservative working capital policy.

(b) It is found hat inventory holds the largest portion of current assets.

(c) It shows that investment in current asset is high with respect to total assets.

(d) The company has not been able to convert current asset quickly in cash in order to meet current liabilities.

(e) Overall return position of company is negative, not in favorable condition. It is because of inefficient utilization of current assets, total assets and shareholder wealth.

Mr. Kunwar has provided some recommendations to improve working capital management:

There must be compulsory formulation of appropriate working capital policy not only conservative. Besides, there should be policy to prevent the holding of excessive and inadequate current assets n the company. It should adopt modern inventory system.

Adaptation of standard and marginal cost techniques will also be a good measure in controlling and classifying the cost as well as for identifying the responsibility centers for the losses.

There should be proper co-operation interaction between different sales agents, production, marketing and sales department during the planning of sales.

Positive attitude towards risk through providing training, participation in management etc for the managerial level employees.

One of the latest of these sorts of dissertation was presented by Mr. Sabin Prakash Sainju, entitled "Cash Management in Nepalese Public Enterprises, a case study of Royal Drugs Limited," presented as partial fulfillment for the requirements of the master degree in the year 2003.

Major findings of his research work were;

    a. Company doesn't have any definite policy regarding how much of cash balance to hold each fiscal year.

    b. Company has not been forecasting cash balance taking into consideration the sales volume.

    c. Company fails to maintain an adequate proportion of cash in its current assets.

    d. Cross analyses revealed that company fails to collect receivables from its sundry debtors timely.

    e. Company has not been precisely meeting its current liabilities payment.

Mr. Sainju has provided some recommendations to improve cash management system of Royal Drugs Limited;

    a. Maintain optimum cash balance every year.

    b. Prepare trial balance.

    c. Prepare cash budget on the basis of cash flow analysis.

    d. Prepare cash flow statements.

    e. Determine minimum level of cash balance to hold every year, maintain such minimum level of cash balance as a requirement of precautionary, speculative and compensation motive, besides for daily transactions.

    f. Use extensively financial and statistical tools as per required.

# CHAPTER- III
# RESEARCH METHODOLOGY

In the preceding chapter, we have overviewed briefly on cash management concept; review of books, theses, and government publication. The basis purpose of this chapter is to enlighten the research design, nature and sources of data, population and sample, collection procedures and methods of analysis of data in brief.

## 3.1 Introduction

Research methodology states the method with which data have been extracted and discuss the tools that have been used in interpretation of such data to fulfill the objectives. The main purpose of this chapter is to focus on different research method and condition which are used while conducting this study. Every study needs a systematic methodology to show the better results of the research. In this study, a cash management of Export enterprises also needs an appropriate research method. For the purpose of this study only secondary data have been used which were available from different Export enterprises.

## 3.2 Research Design

A well settled research design is necessary to fulfill the objective of the study. It means definite procedures and techniques that guides to study and propounds way for research viability. This study is the case study of Nepalese export enterprises, the important manufacturing industries of Nepal. Past financial data of last five fiscal years of the industries have been the basis of this study. The balance-sheets, profit and loss account Cash Flow statements, statements of proposed and approved budget with expenses for last four fiscal years have been compared to analyze the cash management of the company.

## 3.3 Data Collection Procedure

Collecting data is the connecting link to the world of reality for the researcher. The data collection activity consists of taking ordered information from reality and transferring it into some recording system so that it can later be examined and analyzed for patterns. Research as a medium can be interpreted as having a content of data and process of methodology.

### 3.3.1 The Population and Sample

The existing number of carpet manufacturing enterprises in Nepal refers to the population. Since Nirvana and Snow Land carpets are taken as a sample.

### 3.3.2 Nature and Sources of Data

The data collected are secondary. Financial statement such as: balance-sheet, profit and loss accounts, statements of proposed and appeared budget with expenses are the data collected for analysis. The company doesn't have computerized records of financial statements; old data dating prior to five years were placed in a separate room in filing cabinets. These and other related data were gathered directly from authorized staff at central office of enterprises, Kathmandu. Some of these data were published while other unpublished.

## 3.4 Financial and Statistical Tools for Analysis of Data
### 3.4.1. Financial Tools for Analysis of Data

The financial analytical tools have been used for the quantitative analysis of secondary data were as follows:

**1. <u>Financial Ratio Analysis</u>**

Financial ratio analysis is designed to determine the relative strengths and weakness of business operations. It also provides a framework for financial planning and control. Financial Managers need the information provided by analysis both to evaluate the firm's past performance and to map future plans. Financial analysis concentrates on financial statement analysis, which highlights the key aspects of firm's operation. Financial statement analysis involves a study of the relationship between income statement and balance-sheet accounts, how these relationship changes over time and how a particular firm compares with other firms in its industry. Although financial analysis has limitation, when used with care and judgment, it can provide some very useful insights into the operation of a company.

## a. Analysis of Cash Turnover

The cash turnover ratio explains how quickly the cash is received from the sales. In other words, it measures the speed with which cash move through an enterprise's operation.

Cash turnover ratio is obtained by the following formula:

$$\text{Cash turnover ratio} = \left[ \frac{Sales}{\text{Cash in hand and bank}} \right]$$

## b.   Analysis of Current Ratio

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

The standard current ratio is 2:1; however for a Export enterprise, the ratio tends to be little lower than 2:1, as these enterprises generally require very little current assets. But nevertheless any company should maintain this ratio above 1:1, since ratio lower than this definitely indicates poor liquidity position

This ratio is obtained by following formula:

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

## c  Analysis of Quick Ratio

This ratio is also known as 'acid-test ratio'. This ratio also examines the liquidity position of the company. The purpose of this ratio is to test the ability of the firm for immediate payment of current liabilities. This ratio calculated by deducting inventories from current assets and dividing the remainder by current liabilities. Inventories are excluded because it may be difficult to liquidate them at their full back value. More or less than standard ratio is not favorable for a company. Generally acid-test ratio of 1:1 is considered satisfactory as a firm can easily meet all current liabilities.

This ratio is obtained by following formula:

$$\text{Quick Ratio} = \left[ \frac{\text{Current assets - Inventories}}{\text{current liabilities}} \right]$$

**d. Receivable Turnover Ratio**

Receivables turnover ratio gives an idea as to how quickly receivables are converted into sales.

This ratio is obtained by following formula:

$$\text{Receivable Turnover in time} = \frac{\text{Total Sales}}{\text{Re}\,ceivable}$$

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

$$\text{Average collection period (ACP)} = \frac{\text{Days in a year}}{\text{Receivable turnover}\,.}$$

**e. Inventory Turnover Ratio**

Inventory turnover ratio gives idea on how quickly the least liquid current asset i.e. inventory is converted into sales. It is often necessary to use the average inventory figure rather than the year end figure especially if a firm's business is highly seasonal or if there has been a strong upward or downward sales trend during the year. It measures the efficiency of inventory utilization. Increasing ratio is favorable which shows that firm is very efficient on inventory management. This ratio is obtained by following formula;

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

**f. Cash and Bank Balance to Account Receivable**

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

This ratio is obtained by following formula;

$$\text{Cash and Bank Balance to Account Receivable} = \frac{\text{Cash and bank}}{\text{Account Receivable.}}$$

**g. Cash and Bank Balance to Current Assets**

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

This ratio is obtained by the following formula:

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

**h. Cash and Bank Balance to Current Liabilities**

This ratio calculates the cash balance available with the firm in meeting payments of current liabilities. Moderately higher ratio indicates good liquidity, too high and too liquid ratios are unfavorable for the firm. Since, too high indicates excess cash balance held idle and too low ratio means the firm unable to meet current liabilities.

This ratio is obtained by following formula;

$$\text{Cash and Bank Balance to Current Liabilities} = \frac{\text{Cash and bank}}{\text{Current Liabilities}}$$

**i. Net profit Margin Ratio**

This ratio is computed to analyze profitability position of a firm. Higher ratio indicates high profitability and vice-versa.

This ratio is obtained by following formula;

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

**j. Return on Working Capital Ratio**

This ratio is also examining profitability of a firm. The ratio is aimed at analyzing the proportion of current assets employed to earn the profit amount. Higher ratio is favorable and vice-versa.

This ratio is obtained by following formula;

$$\text{Return on Working Ratio} = \frac{\text{Net Profit after tax}}{\text{Current Assets}}$$

**k. Net Profit after Tax to Quick Assets Ratio**

This ratio also examines the profitability of a firm; analyses proportion of quick assets (i.e. Current Assets – Inventory) in earning the profit amount.
This ratio is obtained by following formula;

$$\text{Net Profit after Tax to Quick Assets} = \frac{\text{Net profit After Tax}}{\text{Quick Assets}}$$

**3.4.2 Statistical Tools for Analysis**

The statistical tools used for the quantitative analysis of secondary data were as follows:

**a. Standard Deviation (S.D)**

Standard deviation measures scatter, spread and provides idea of homogeneity or heterogeneity of the distribution. Out of various methods of studying dispersions such as; range, quartile deviation, mean deviation; standard deviation and variance are the most popular method.

$$\text{S. D.} = \sqrt{\frac{1}{N}\sum(X - \overline{X})^2}$$

Where;

N = Number of observations/time periods

$\overline{X}$ = Expected return of the historical data

In conjuction with standard deviation, coefficient of variation (c.v.) is also computed which is the relative measure based on standard deviation. It is defined as the standard deviation divided by the mean of expected reurn. It is used to standardize the risk per

unit of return. A project with a low c. v. has less risk per rupee than a project with a high c. v.

$$C.V. = \frac{\text{Standard deviation}}{\text{Expected return}} \times 100\%$$

## b. The Least Square Method

A widely and most commonly used method to describe the trend is the method of least square. Under this method, a trend line is fitted to the data satisfying the following two conditions.

Let the trend line between the dependent variable y and the independent variable x be representd by :

$$y = a + bx \dots\dots\dots(i)$$

Then for any given value of independent variable x, the estimate value of y denoted by $y_c$ given by above equation is;

$$y_c = a + bx$$

Where,

a = y intercept or value of y when x =0.

b= slope of the trend line or amount of change that comes in y for a unit change in x.
To determine the straight line trend, we have to determine the values of a and b.

To find the values of a and b, we solve the folowing two equations:

$$\sum Y = na + b\sum x \dots\dots\dots(i)$$

and $\sum XY = a\sum X + b\sum X^2 \dots\dots\dots(ii)$

The equation (ii) is obtained by taking sum on both sides of equation (i),the equation (iii) is obtained by miltiplying equation (i) by X and taking sum on both sides.

The values of a and b obtained by solving (ii) and (iii) , are substituted in equation (i) gives the equation of the trend line.

To make calculation easier, the deviation of the independent variable are taken form the middle of the time period so that $\sum X = 0$

Then the above two equations change to

$$\sum Y = na$$

$$\mathbf{a} = \frac{\sum y}{n}$$

and

$$\sum XY = b \sum X^2$$

$$b = \frac{\sum XY}{\sum X^2}$$

## c. Karl Pearson's Coefficient of Correlation (r)

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

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

Out of several methods of calculating correlation,Karl Pearson's cofficient of correlation is one of the best and popula rmethod. Karl Pearson's coefficient of correlation(r) measures the degree of association between the tow variables suppose X and y; given by :

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

Where;

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

$\sim = X - \overline{X}$

$V = Y - \overline{Y}$

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

N = Number of Years.

Interpretation of correlation coefficient (r)

    a.  The value of 'r' lies between +1.00 to -1.00

    b.  When r =+1, there is positively perfect correlation between the two variables.

c.  When r = -1, there is a negatively perfect correclation between the two varialbes.

d.  When r =0, the variables are uncorrelated i.e, increase or decrease in one variable results no impact on another variable and vice-versa.

Together with Karl Pearson's coefficeint of correlation probable error (P.E.) of the correlation coefficeint is also computed. P. E is the measure of testing the reliability of the calculated value of 'r'. It is given by: P. E. = 0. 6745 $\dfrac{1-r^2}{\sqrt{n}}$

Where;

P. E. = Probable error of correlation coefficient

N= Number of pair of observations

r= correlation coefficient.

It is used in interpretation whether calculated value of 'r' is siginifcant or not.

1.  It r< P. E, it is insignificant. So, perhaps there is no evidence of correlation.

2.  It r> 6P. E.,  it is significant .

3.  But when P. E< r< 6 (P.E), the value of 'r' is inconclusive as to stastistically signigicant/ insignificant correlation.

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

r + P. E  (Upper Limit) and
r-P. E (Lower Limit), respectively

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

For instance, if 'r' is calculated as r = -0.5, then |r| = 0.5.

This positive value of 'r' is compared with P. E. and 6 (P.E.) to derive to a conclusion of practically significant/insignificant correlation.

**d. Regression Analysis**

Regression is the statistical tool which is used to determine the statistical relationship between two (or more) variables and to make estimation of one variable on the basis of the other variable(s). The closer the relationship between the two variables, the more accurate the estimeted value is. The unkonwn variable to be estimated is called deplendent variable and the known variable is called independent variable.

Noteworthy here is that correlation analysis indicates to what degree the variables are related and regression analysis indicates how the variables are related.

Regression line of X variable on Y variable is given by;

$$(X - \overline{X}) = r\frac{\dagger X}{\dagger Y}(Y - \overline{Y})$$

Where,        $\overline{X}$ = Mean of X variable

$\overline{Y}$ = Mean of Y variable

$\dagger X$ = Standard deviation of X variable

$\dagger Y$ = Standard deviation of Y variable

r= Karl Pearson's coefficient of Correlation.

Likewise, the regression line of Y variable on X variable is given by;

$$(Y - \overline{Y}) = r.\frac{\dagger Y}{\dagger X}(X - \overline{X})$$

# CHAPTER-IV

# DATA PRESENTATION AND ANALYSIS

The basic objective of this study as stated in chapter one is to have true insight into "cash management" of Nepalese export Enterprises. For accomplishment of these objectives, 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 managements to disclose the actual position of 'cash management' in export enterprises.

## 4.1. Analysis of the Data by "Financial Tools"
## 4.1.1. Analysis of Cash and Bank Balance

Holding of optimum cash and bank balance is the rational cash management practice of a business firm. Management of cash plays a significant role in current assets of export enterprises. Total cash balance refers to the cash in hand, cash at bank, and cash in transit, near cash assets such as; marketable securities and time deposit in bank.

Table No -8 below shows the amount of cash and bank balance of export enterprises during the period under study. The cash and bank balance of each fiscal year end has been compared to preceding years to analyze fluctuations.

**Table No 1**

**Analysis of Cash and Bank Balance**

(Rs in Thousand)

| Fiscal year | Nirvana Carpet | Growth Rate | Snow land art carpet | Growth Rate |
|---|---|---|---|---|
| 059/60 | 801.47 | - | 4704.73 | - |
| 060/61 | 1319.57 | 64.64 | 7670.31 | 63.03 |
| 061/62 | 1849.29 | 40.14 | 5951.73 | (22.40) |
| 062/63 | 213.68 | (88.45) | 12056.16 | 102.56 |
| 063/64 | 3454.55 | 1516.69 | 4719.44 | (60.85) |

Source: Balance Sheet-Annex 1

Note: Figures within brackets ( ) indicates negative amount.

Growth rate = (This year-Previous Year)/Previous year x100

From the above figure we can see that, the cash balance of the each company is increased and decreased sharply. In the above table we can see the sharpest deviation in case of Nirvana carpet and Snow Land carpet.

However, in case of Nirvana Carpet sharpest deviation in increments of cash balance occurred in fiscal year 2063/64 when the company held cash balance of Rs. 3454.55 thousand compared to Rs 213.68 thousand only in the previous year. It indicated an increment by 1516.69% an erratic fluctuation. But in case of Snow Land carpet sharpest deviation in increments of cash balance occurred in fiscal year 2062/63 when the company held cash balance of Rs 12056.16 thousand compared to Rs 5951.73 thousand only in the last year which indicated an increment by 102.56 % .

**Figure 4**
**Cash and Bank Balance**
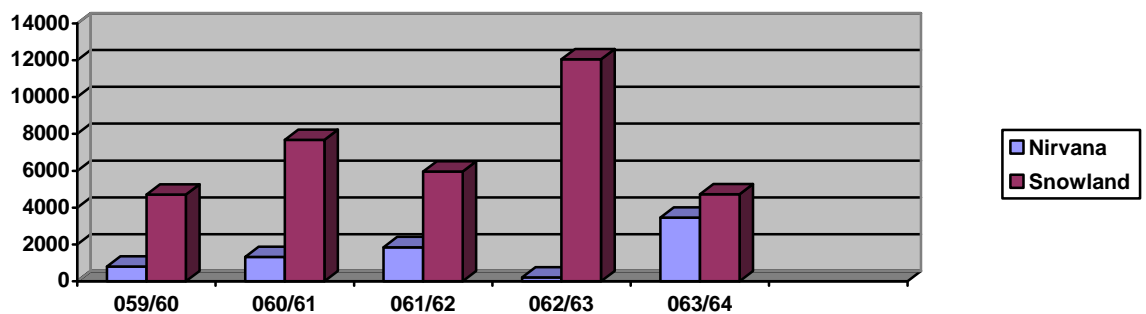


It can be presented with the help of graph to show the variation in cash balance held at the end of each fiscal year.

### 4.1.2. Analysis of Cash Turnover Ratio

The cash balance of the company should be optimum to meet its current obligations in course of daily business transaction. The cash turnover ratio represents how quickly the cash is received from its sale be formulated to find out. Higher turnover is the signal of good liquidity and vice-versa. However, too high ratio indicates excess cash balance being held idle.

**Table No 2**
**Analysis of Cash Turnover Ratio**

(Rs in Thousand)

| Fiscal year | Nirvana | | | Snow land | | |
|---|---|---|---|---|---|---|
| | Sales | Cash and Bank | (Times)Ratio | Sales | cash/bank | Ratio |
| 2059/60 | 20908.36 | 801.47 | 26.08 | 12702.86 | 4704.73 | 2.70 |
| 2060/61 | 31174.11 | 1319.57 | 23.62 | 35024.60 | 7670.31 | 4.56 |
| 2061/62 | 23143.03 | 1849.29 | 12.51 | 9444.09 | 5951.73 | 1.58 |
| 2062/63 | 37322.78 | 213.68 | 174.67 | 8480.83 | 12056.16 | 0.70 |
| 2063/64 | 52105.61 | 3454.55 | 15.08 | 8306.26 | 4719.44 | 1.76 |
| Total | 164653.89 | 7638.56 | | 73958.64 | 35102.37 | |
| Average | 32930.78 | 1527.71 | 56.39 | 14791.73 | 7020.47 | 2.26 |

Source: Balance Sheet Annex-1 and  P/L Annex-4

The above table shows erratic fluctuations have been observed in cash turnover analysis. The ratio is fluctuating too high or too low, indicative of no definite policy of holding cash balance in relation to sales volume. In case of Nirvana carpet the above table shows that the highest ratio of 174.67 times has been observed in FY 2062/63 but in case of Snow Land Carpet there is lower cash reserve ratio in the same fiscal year. But in case of Snow Land carpet the highest ratio observed in fiscal year 2060/61. Overall, average ratio has been calculated 45.18(Nirvana) &2.12(Snow Land) times. Likewise the average cash turnover cycle has been found 30 days. However, due to unavailability of information regarding credit policy of the company, the credit days allowed to its debtors was not known. So, no precise analysis could be carried - out for cash turnover cycle.

It can be presented with the help of graph to show the cash turnover ratio in relation with sales and cash balance.

**Figure 5**
**Cash Turnover Ratio (FY 2059/60-63/64)**
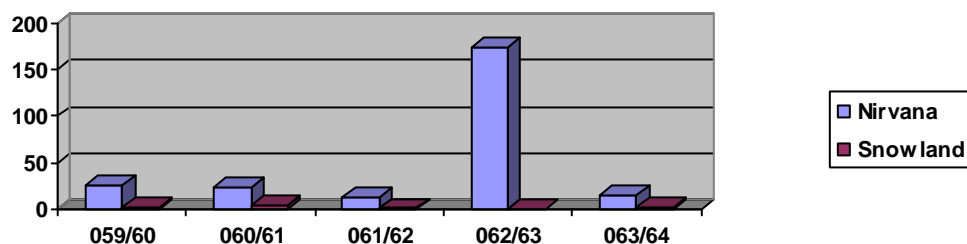
### 4.1.3. Analysis of Current Ratio

One of the reliable methods to examine liquidity position of an enterprise is by means of current ratio; i, e current Assets to current liabilities.

The conventionally accepted current ratio. 2:1 is the standard ratio, a company should maintain. However, depending upon the nature of the company, the development of capital market and availability of long-term funds to finance current assets; the satisfactory ratio varies. As stated by Khan and Jain, taking into consideration the nature of a company, satisfactory current ratio for a public enterprise is generally very low, as normally these companies have very little need for current assets. So, satisfactory ratio for Nirvana, a public enterprise is therefore between 2:1 and higher than 1.5:1. But in general, ratio less than 1:1 is certainly undesirable for any enterprise.

**Table No 3**
**Analysis of Current Ratio**

(Rs in Thousand)

| | Nirvana carpet | | | Snow land carpet | | |
|---|---|---|---|---|---|---|
| Fiscal Year | Current Assets | current Liabilities | Ratio (times) | current Assets | current Liabilities | Ratio (Times) |
| 2059/60 | 12085.5 | 11033.43 | 1.09:1 | 18869.48 | 7914.74 | 2.38:1 |
| 2060/61 | 9856.06 | 8851.80 | 1.11:1 | 16347.69 | 12185.82 | 1.34:1 |
| 2061/62 | 10601.4 | 9518.98 | 1.11:1 | 14121.07 | 12315.47 | 1.14:1 |
| 2062/63 | 12927.88 | 10286.72 | 1.25:1 | 19683.72 | 17234.78 | 1.14:1 |
| 2063/64 | 24215.01 | 21517.88 | 1.12:1 | 10956.94 | 5467.45 | 2.00:1 |
| Total | 69685.85 | 61208.81 | | 79978.9 | 55118.26 | |
| Average | 13937.17 | 12241.76 | 1.14:1 | 15995.78 | 11023.65 | 1.60:1 |

Source: Balance Sheet Anex-1

In case of Nirvana carpet the current ratio varies in between 1.09 to 1.25 which is below the slandered but not below the 1:1 ratio which means they have the satisfactory liquidity position.

But in case of Snow Land carpet the above figure shows that the current ratio varies from 2.38:1 in the FY 2059/60 to 1.14:1 in the FY 2061/62 & 2062/63 indicating highly

fluctuations. Observing the figure one may note that except in the FY 2060/61, none of the ratios calculated in the fiscal years under study is below 1:1. If the current ratio is below 1:1, which indicates that the Snow Land carept does not have a sound or satisfactory liquidity position? The most favorable current ratio was observed in the FY 2063/64 when the ratio is 2:1.

### 4.1.4  Analysis of Quick Ratio

The ratio conveys the most precise information on liquidity position of a firm, since; it excludes the inventory, the least liquid asset from the current assets and compares it with current liabilities. Inventory when excluded from current assets is called quick assets. The preceding ratio analysis, i.e. the current ratio analysis fails to convey information regarding composition of the current assets of a firm. Current assets are composed of cash and bank balance, Short- time marketable securities, receivable and inventory. However, inventory is not capable of readily converting into cash and therefore it is the less liquid compared to other composition of the current assets. Thus this quick ratio is more reliable measure of liquidity than current ratio. Quick ratio is so called because it measures the capacity of a firm to convert its current assets quickly into cash in order to meet its current liabilities.

**Table No 4**
**Analysis of Quick Ratio**

(Rs in Thousand)

| Fiscal year | Nirvana carpet | | | Snow Land Carpet | | |
|---|---|---|---|---|---|---|
| | Quick Assets | Current Liabilities | Ratio(times) | Quick Assets | Current Liabilities | Ratio (Times) |
| 2059/60 | 9143.63 | 11033.43 | 0.83:1 | 11980.76 | 7914.74 | 1.51:1 |
| 2060/61 | 1981.67 | 8851.80 | 0.22:1 | 8537.34 | 12185.82 | 0.70:1 |
| 2061/62 | 2197.38 | 9518.98 | 0.23:1 | 7278.40 | 12315.47 | 0.59:1 |
| 2062/63 | 4882.34 | 10286.72 | 0.47:1 | 12864.99 | 17234.78 | 0.74:1 |
| 2063/64 | 16166.30 | 21517.88 | 0.75:1 | 9412.52 | 5467.45 | 1.72:1 |
| Total | 34371.32 | 61208.81 | | 50074.01 | 55118.26 | |
| Average | 6874.26 | 12241.76 | 0.5:1 | 10014.80 | 11023.65 | 1.05:1 |

Source: Balance Sheet Anex-1.

The standard quick ratio to be maintained by the enterprise is 1:1. From the above table, one many conclude that the ratios obtained in FY expect 2059/60 and 2063/64 are unsatisfactory for the Nirvana carpet. In fact, in the case of Snow Land carpet the quick

ratio in the fiscal year 2059/60 and 2063/64, the ratios in 1.51 and 1.72 which is slightly higher then the standared. However other ratios for rest of the fiscal years have been below the standard ratio, and as such liquidity positions for the corresponding years are unsatisfactory.

### 4.1.5. Analysis of Receivables Turnover Ratio

This ratio shows how quickly receivables are converted into cash. The ratio shows how well the debtors have been handled by the company. In connection with this ratio, average collection period is also calculated. Higher ratio and shorter average collection period indicates better trade credit management and better liquidity of debtors, and consequently better liquidity of the enterprise. Likewise, lower ratio and longer average collection period signals delayed payments by the debtors.

**Table No 5**

**Analysis of Receivables Turnover Ratio**

**(Rs in Thousand)**

| Fiscal year | Nirvana | | | Snow Land art | | |
|---|---|---|---|---|---|---|
| | Sales | Receivable | Ratio (times) | Sales | Receivable | Ratio (times) |
| 2059/60 | 20908.36 | 8342.14 | 2.51 | 12702.86 | 276.26 | 45.98 |
| 2060/61 | 31174.11 | 662.10 | 47.08 | 35024.60 | 867.03 | 40.39 |
| 2061/62 | 23143.03 | 348.09 | 66.48 | 9444.09 | 1326.67 | 7.11 |
| 2062/63 | 37322.78 | 4668.66 | 7.99 | 8480.83 | 535.84 | 15.83 |
| 2063/64 | 52105.61 | 12711.75 | 4.09 | 8306.26 | 4693.07 | 1.76 |
| Total | 164653.89 | 26732.74 | | 73958.64 | 6798.87 | |
| Average | 32930.78 | 5346.55 | 25.63 | 14791.73 | 1539.77 | 22.21 |

Source: Balance Sheet Anex-1.

From the above table shows that, in the case of Nirvana Carpet the ratios are moderately fluctuating and very from the lowest of 2.51 times to the highest of 66.48 times and average collection days of 39 days to 90 days in the fiscal year 2059/60and 2061/62 respectively.

But in case of Snow Land Carpet the ratios are fluctuating from the lower of 1.76 to the highest of 45.98 times in the fiscal year 2063/64 & 2059/60.

However, it should be noted that too short average collection days doesn't necessarily imply that the firm is functioning well, for it indicates a very restrictive credit and collection policy thereby restricting its sales only to those debtors whose financial conditions are sound and who make their payments readily. Such restrictive policy would definitely avoid bad debts but the sales volume is likely to be curtailed by large proportion. Consequently, the overall profitability of the firm goes down.

## 4.1.6. Analysis of Inventory Turnover Ratio

This ratio is yet another way of analyzing the liquidity of an enterprise. This ratio shows how effectively a firm is managing its assets and whether or not the level of those assets is properly related to the level of operations as measured by sales. High inventory turnover ratio signals better inventory management and vice-verse. However, very high inventory turnover ratio is indicative of under-investment in or very low level of inventory; and as such implies that the firm has not been meeting customer demand. So, a firm should go for an optimum inventory turnover ratio, which signifies sound inventory management.

**Table No 6**

**Analysis of Inventory Turnover Ratio**

**(Rs in Thousand)**

| Fiscal year | Nirvana carpet | | | Snow Land carpet | | |
|---|---|---|---|---|---|---|
| | Sales | Inventory | Ratio (times) | Sales | Inventory | Ratio (times) |
| 2059/60 | 20908.36 | 2941.88 | 7.11 | 12702.86 | 6888.72 | 1.84 |
| 2060/61 | 31174.11 | 7874.39 | 3.96 | 35024.60 | 7810.35 | 4.48 |
| 2061/62 | 23143.03 | 8404.02 | 2.75 | 9444.09 | 6842.67 | 1.38 |
| 2062/63 | 37322.78 | 8045.54 | 4.64 | 8480.83 | 6818.73 | 1.24 |
| 2063/64 | 52105.61 | 8048.71 | 6.47 | 8306.26 | 1544.42 | 5.38 |
| Total | 164653.89 | 35314.54 | | 73958.64 | 29904.89 | |
| Average | 32930.78 | 7062.91 | 4.99 | 14791.73 | 5980.98 | 2.86 |

Sources: Balance Sheet and Profit and Loss Account.

For Nirvana carpet, from the above table shows that the ratio fluctuate from 2.75 times to 7.11 times and these occur at 2061/62 and 2059/60. The ratio for the fiscal year 2059/60 is 7.11 times, the highest of all ratios, has definitely suggested that during the period, either the company should have undergone underinvestment or the inventory held was comparatively lower. The fluctuation is moderate and the overall ratio has been

calculated 4.99 times. But in case of Snow land carpet the maximum ratio is found in fiscal year 2063/64 with 5.38% and average ratio are 2.86.

**4.1.7. Analysis of Cash and bank Balance to Account Receivable**

This ratio measures the relationship between the cash balance on hand to account receivable. The higher ratio indicates better liquidity position and vice-versa. However, too high ratio indicates excessive cash balances are held idle and that the transactions are limited only to parties making prompt payments.

**Table No 7**
**Analysis of Cash and Bank Balance to Account Receivable**

(Rs in Thousand)

| Fiscal year | Nirvana carpet | | | Snow Land carpet | | |
|---|---|---|---|---|---|---|
| | Cash & Bank | Account Receivable | Percentage of A.R. | Cash & Bank | Account Receivable | Percentage of A.R |
| 2059/60 | 801.47 | 8342.14 | 9.60 | 4704.73 | 276.26 | 1703.01 |
| 2060/61 | 1319.57 | 662.10 | 199.30 | 7670.31 | 867.03 | 885.66 |
| 2061/62 | 1849.29 | 348.09 | 531.27 | 5951.73 | 1326.67 | 448.62 |
| 2062/63 | 213.68 | 4668.66 | 4.58 | 12056.16 | 535.84 | 2249.95 |
| 2063/64 | 3454.55 | 12711.75 | 27.18 | 4719.44 | 4693.07 | 100.56 |
| Total | 7638.56 | 26732.74 | | 35102.37 | 7698.87 | |
| Average | 1527.71 | 5346.55 | 154.39 | 7020.47 | 1539.77 | 1077.56 |

Source: Balance Sheet Annex-1

Above table shows that the ratio or percentage of account receivables fluctuate from 4.58 % to 531.27% for Nirvana carpet and 100.56% to 2249.95% for the Snow land carpet, an erratic fluctuation. In each fiscal year of Snow land carpet, the percentage of account receivables is very high which indicated that the cash balance held is excessive and has been idle. The erratic fluctuations suggest that the company hasn't been following a definite policy regarding how much cash balance to hold at the fiscal year end. The average percentage of account receivable is 154.39% (Nirvana) and 1077.56% (Snow land).

It can be presented with the help of graph to show the relationship between cash and bank balance and account receivable.

**Figure 6**
**Cash and Bank Balance to Account Receivable**
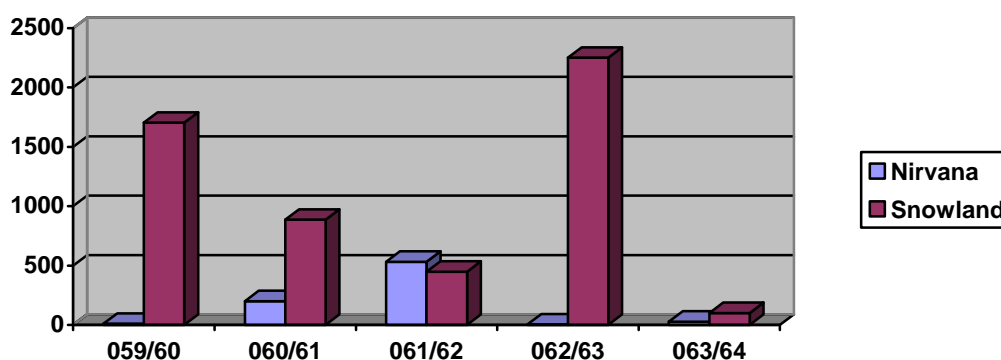


## 4.1.8. Analysis of Cash and Bank Balance to Current Assets

As we know that the cash is the most liquid current asset and as such more the amount of cash balance in an enterprise, more liquid the enterprise in meeting its current obligations. However, bearing excess cash signifies cash balance being held idle without any motive.

The ratio of cash and Bank to current assets indicate the proportion of cash balance in the current assets. Stable pattern of ratio for different fiscal years indicate that the company has been following a systematic policy regarding how much cash balances to hold at the fiscal year end.

**Table No 8**

**Analysis of Cash and Bank Balance to Current Assets**

**(Rs in Thousand)**

| Fiscal year | | Cash & Bank | Current Assets | Ratio of cash and bank to current Assets |
|---|---|---|---|---|
| 2059/60 | Nirvana | 801.47 | 12085.50 | 6.63 |
| | Snow Land | 4704.73 | 11869.71 | 39.64 |
| 2060/61 | Nirvana | 1319.57 | 9856.06 | 13.39 |
| | Snow Land | 7670.31 | 16347.69 | 46.92 |
| 2061/62 | Nirvana | 1849.29 | 10601.40 | 17.44 |
| | Snow Land | 5951.73 | 14121.07 | 42.15 |
| 2062/63 | Nirvana | 213.68 | 12927.88 | 1.65 |
| | Snow Land | 12056.16 | 19410.72 | 62.11 |
| 2063/64 | Nirvana | 3454.55 | 24215.01 | 14.27 |
| | Snow Land | 4719.44 | 10956.94 | 43.07 |
| Total | Nirvana | 7638.56 | 82613.73 | |
| | Snow Land | 35102.37 | 72706.13 | |
| Average | Nirvana | 1527.71 | 16522.75 | 10.68 |
| | Snow Land | 7020.47 | 14541.23 | 46.78 |

Source: Balance Sheet Anex-1.

From the above table shows the percentage of cash and bank balance to current Assets of the both carpet. Above table indicates that the cash and bank balance with respect to current Assets has fluctuating trend. During the study period the percentage of cash and bank balance to current Assets range from the lower of 1.65% to the highest of 62.11% in the fiscal years 2062/63 of Nirvana carpet, and 2062/63 of Snow land respectively. Attention has been drawn in the FY 2062/63 of Nirvana carpet where the percentage of cash and bank balance to current assets is very low with 1.65 only. These data shows that the company has undergone cash scarcity to meet short-term payments during this fiscal year otherwise other ratios of both companies are satisfactory. On an average the projection of cash and Bank Balance to current Assets for the study period 10.68% and 46.78%.

It can be presented with the help of graph to show the relationship between current Assets.

**Figure 7**
**Current Assets of Nirvana Carpet and Snow Land**
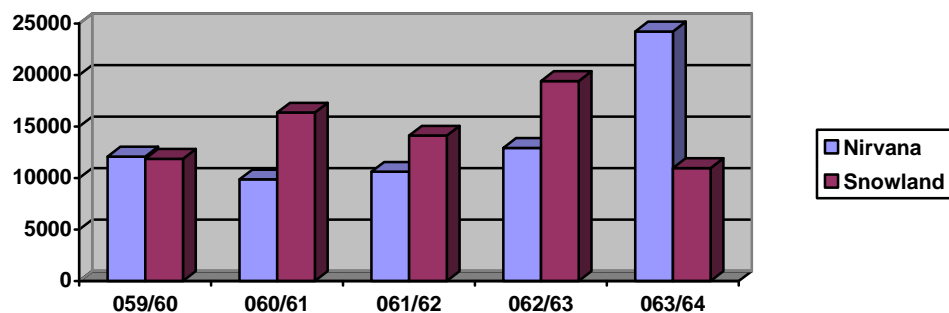


### 4.1.9. Analysis of Cash and Bank Balance to Current Liabilities

Among the technique of measuring corporate liquidity, the ratio of cash and Bank Balance to current liabilities many also be used as index of cash management. This ratio indicates the amount of cash (in percentage) available to pay the current obligation of the firm. A moderate ratio is considered satisfactory, too high ratio indicates excess cash balance held idle and too low ratio is indicative of company being unable to meet its payment of current liabilities in time.

Below the table shows that the ratios fluctuate from the lowest of 3.62% of nirvana carpet to the highest of 6018.93% of Snow land carpet in the fiscal years 2062/63 and 2063/64. The above table has clearly indicated that the Nirvana carpet hasn't been

following a systematic cash management practice where as in the case of Snow Land it is quite good. The average ratios have been found calculated 14.38 (Nirvana) and 1397.86 (Snow Land).

**Table No 9**

**Analysis of Cash and Bank Balance to Current Liabilities**

**(Rs in Thousand)**

| Fiscal year | | Cash & Bank | Current Liabilities | Ratio (%) |
|---|---|---|---|---|
| 2059/60 | Nirvana | 801.47 | 9732.93 | 8.23 |
| | Snow Land | 4704.73 | 3853.75 | 122.08 |
| 2060/61 | Nirvana | 1319.57 | 6058.92 | 21.78 |
| | Snow Land | 7670.31 | 3444.60 | 222.68 |
| 2061/62 | Nirvana | 1849.29 | 9518.98 | 19.43 |
| | Snow Land | 5951.73 | 4430.07 | 134.35 |
| 2062/63 | Nirvana | 213.68 | 5905.29 | 3.62 |
| | Snow Land | 12056.16 | 2454.03 | 491.28 |
| 2063/64 | Nirvana | 3454.55 | 18346.42 | 18.83 |
| | Snow Land | 4719.44 | 78.41 | 6018.93 |
| Total | Nirvana | 7638.56 | 49562.54 | |
| | Snow Land | 35102.37 | 14260.86 | |
| Average | Nirvana | 1527.71 | 9912.51 | 14.38 |
| | Snow Land | 7020.47 | 2852.17 | 1397.86 |

Source: Balance sheet Anex-1.

It can also be presented with the help of graph to show the relationship between cash and Bank Balance and current liabilities.

**Figure 8**

**Current Liabilities of Both Carpets**
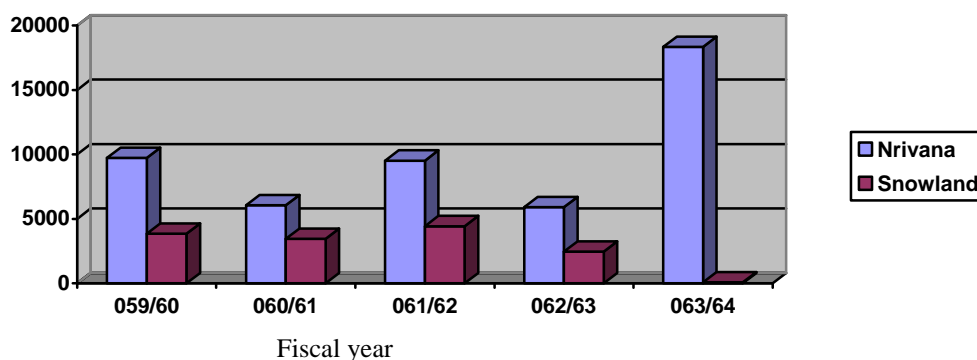


**4.1.10. Analysis of Net Profit Margin Ratio**

Net profit Margin ratio measures the relationship between net profits and sales of a firm. A high profit margin indicates adequate return to the firm and thus enables in with

standing in adverse economic situations when sales price is declining, cost of production is rising and demand for the product is falling.

**Table No 10**

**Analysis of Net Profit Margin Ratio**

**(Rs in Thousand)**

| Fiscal year | | Net profit After Tax (loss) | Sales | Ratio (%) |
|---|---|---|---|---|
| 2059/60 | Nirvana | 1300.50 | 20908.36 | 6.22 |
| | Snow Land | 1191.29 | 12702.86 | 9.38 |
| 2060/61 | Nirvana | 1938.91 | 31174.11 | 6.22 |
| | Snow Land | 3597.42 | 35024.60 | 10.27 |
| 2061/62 | Nirvana | 1050.90 | 23143.03 | 4.54 |
| | Snow Land | 227.00 | 9444.09 | 2.40 |
| 2062/63 | Nirvana | 1327.37 | 37322.78 | 3.56 |
| | Snow Land | 305.31 | 8480.83 | 0.04 |
| 2063/64 | Nirvana | 2301.88 | 52105.61 | 4.42 |
| | Snow Land | 336.81 | 8306.26 | 4.05 |
| Total | Nirvana | 7919.56 | 164653.89 | |
| | Snow Land | 5657.83 | 73958.64 | |
| Average | Nirvana | 1583.91 | 32930.78 | 4.99 |
| | Snow Land | 1131.57 | 14791.73 | 5.23 |

Source: Profit and Loss Account.

Above table shows that the company has operation under profit. Noticeably in the FY 2059/60 Nirvana carpet and in the fiscal year 2062/63 Snow Land carpet's sales is unknown other wise all the ratios are satisfactory with average ratios of 4.99 & 5.23.

### 4.1.11. Analysis of Return on Working Capital

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

**Table No 11**

**Analysis of Return on Working Capital**

**(Rs in Thousand)**

| Fiscal year | | Net profit After Tax (loss) | Current Assets | Ratio (%) |
|---|---|---|---|---|
| 2059/60 | Nirvana | 1300.50 | 12085.50 | 10.76 |
| | Snow Land | 1191.29 | 11869.71 | 10.03 |
| 2060/61 | Nirvana | 1938.91 | 9856.06 | 19.67 |
| | Snow Land | 3597.42 | 16347.69 | 22.01 |
| 2061/62 | Nirvana | 1050.90 | 10601.40 | 9.91 |
| | Snow Land | 227.00 | 14121.07 | 1.61 |
| 2062/63 | Nirvana | 1327.37 | 12927.88 | 10.27 |
| | Snow Land | 305.31 | 19410.72 | 1.57 |
| 2063/64 | Nirvana | 2301.88 | 24215.01 | 9.50 |
| | Snow Land | 336.81 | 10956.94 | 3.07 |
| Total | Nirvana | 7919.56 | 69685.85 | |
| | Snow Land | 5657.83 | 72706.13 | |
| Average | Nirvana | 1583.91 | 13937.17 | 12.02 |
| | Snow Land | 1131.57 | 14541.23 | 7.66 |

Source: Profit and Loss Account and Balance Sheet.

Above table shows that the company has been utilizing its current assets effectively in earning profit. Noticeably in FY 2060/61 the ratio is 19.67 & 22.01 which is best utilization. Besides, the overall ratio is satisfactory with average 12.02% &7.66 %.

**4.1.12. Analysis of Net Profit after Tax to Quick Assets**

This ratio also examines profitability of a firm; analyses proportion of quick assets in earning the profit amount. Higher ratio indicates higher utilization of quick assets in earning profit and vice-versa.

**Table No 12**

**Analysis of Net Profit after to Quick Assets**

(Rs in Thousand)

| Fiscal year | | Net Profit After Tax (loss) | Quick Assets | Ratio (%) |
|---|---|---|---|---|
| 2059/60 | Nirvana | 1300.50 | 9143.62 | 14.22 |
| | Snow Land | 1191.29 | 4980.99 | 23.92 |
| 2060/61 | Nirvana | 1938.91 | 1981.67 | 97.84 |
| | Snow Land | 3597.42 | 8537.34 | 42.13 |
| 2061/62 | Nirvana | 1050.90 | 2197.38 | 47.82 |
| | Snow Land | 227.00 | 7278.40 | 3.11 |
| 2062/63 | Nirvana | 1327.37 | 4882.34 | 27.19 |
| | Snow Land | 305.31 | 12591.99 | 2.42 |
| 2063/64 | Nirvana | 2301.88 | 16166.30 | 14.24 |
| | Snow Land | 336.81 | 9412.52 | 3.58 |
| Total | Nirvana | 7919.56 | 34371.31 | |
| | Snow Land | 5657.83 | 42801.24 | |
| Average | Nirvana | 1583.91 | 6874.26 | 40.26 |
| | Snow Land | 1131.57 | 8560.25 | 15.03 |

Source: Balance Sheet and Profit and Loss Account.

Above table shows that the ratios has been found disastrous. The figures clearly indicate that utilized quick assets have been earning profit in the average profit of Rs 1583.91 &1131.57 thousand. Very insignificant positive ratio has been observed in FY 2060/61(Nirvana) & (Snow Land), 2061/62(Nirvana), with 97.84%, 42.13% and 47.82% with average ratio of 40.26% and 15.03%.

**4.1.13 Cash Conversion Cycle**

The cash conversion cycle (CCC) is the length of time between when the company makes payment and when it receives cash. The CCC net outs three periods i.e ICP, RCP and PDP thus equal the length of time between the firm's accrual expenditures for productive resources and its own cash receipts from the sale of products. Once the purchase of raw materials is made the inventory conversion period determines the average number of days, it takes to produce and sell the product, the average collection

period determined the average number of days it take to produce and sells the product. The average collection period determines the average number of days which makes the receivables is collected. Payable deferral period measures the days each period conversion, the payable of cash is made for labour and suppliers. Hence, CCC is determined by differencing the operation cycle and payable deferral period. Operating cycle is calculated by totaling the ICP and RCP. The CCC should be shortened as much as possible without hurting the operation. This would improve profit because shorter the CCC, the smaller the need for external financing and thus lower the cost of such financing. So that it pays the effective role on cash management system. The cash conversion cycle is calculated by reducing payable deferral period with the sum of inventory conversion period and receivable collection period.

**Table No 13**

**Cash Conversion Cycle (Period) of Manufacturing Companies**

**(In Days)**

| Name of Industry | 2059/60 | 2060/61 | 2061/62 | 2062/63 | 2063/64 | Average |
|---|---|---|---|---|---|---|
| Nirvana | 176.34 | 20.56 | 306.13 | 62.24 | 112.2 | 135.49 |
| Snow land | 33.72 | 0.43 | 200.74 | 102.22 | 6.84 | 68.79 |
| Average | 105.03 | 10.49 | 253.43 | 82.23 | 59.52 | 102.14 |

PDP is calculated by dividing payable with cost of good sold then again multiplying by days in year (365 days).

The above table shows that the average CCC of the selected manufacturing during the study period. It has been observed to be 105.03 days in 2059-2060, 10.49 days in 2060-2061, 253.43 days in 2061-2062, 82.23 days in 2062-2063 and 59.52 days in 2063-2064, where as the overall average CCC over the study Period was 102.14 days. In fiscal year 2060-2061,2062-2063 and 2063-2064, CCC has been observed lesser than overall average. In 2059/60 and 2061-2062, CCC was higher than overall average.

Similarly, the average CCC of individual companies over (within) the study period has been observed to 135.49 days for Nirvana carpet, 68.79 days for Snow land. The CCC for Snow Land carpet was below the overall average but for the Nirvana carpet it had the

upper level of CCC. The overall CCC, 135.49 days, is too large period of conversion that inventory and receivable is made in form of cash. It is unsatisfactory result for manufacturing companies. Because long CCC affects the firms liquidity position. Due to the high inventory conversion period the result was seen unsatisfactory. So first off all the company is suggested to improve inventory management system for making appropriate average cash conversion cycle.

## 4.2 Analysis of the Data by "Statistical Tools"

### 4.2.1. Analysis of Dispersion in Cash and Bank Balance

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

**(Rs in Million)**

| | Nirvana Carpet | | | Snow Land Carpet | | |
|---|---|---|---|---|---|---|
| Fiscal year | Cash and Bank(X) | $(X - \overline{X})$ | $(X - \overline{X})^2$ | Cash and Bank (X) | $(X - \overline{X})$ | $(X - \overline{X})^2$ |
| 2059/60 | 0.80 | -0.72 | 0.52 | 4.70 | -2.32 | 5.38 |
| 2060/61 | 1.32 | -0.21 | 0.04 | 7.67 | 0.65 | 0.42 |
| 2061/62 | 1.85 | 0.32 | 0.10 | **5.95** | -1.07 | 1.14 |
| 2062/63 | 0.21 | -1.31 | 1.72 | 12.06 | 5.04 | 25.40 |
| 2063/64 | 3.45 | 1.93 | 3.72 | 4.71 | -2.31 | 5.34 |
| Total | 7.63 | ..... | 6.10 | **35.10** | | 37.68 |
| N=5 | | | | | | |

Nirvana Carpet, Mean $(\overline{X}) = \dfrac{\sum X}{N} = \dfrac{7.63}{5} = 1.53$ million

Standard Deviation $= \sqrt{\dfrac{1}{N} \sum (X - \overline{X}))^2}$

$= \sqrt{\dfrac{6.10}{5}}$

$=$ Rs. 1.10 million

Snow land Carpet, Mean $(\overline{X}) = \dfrac{\sum X}{N} = \dfrac{35.10}{5} = 7.02$      million

$$\text{Standard Deviation} = \sqrt{\frac{1}{N}\sum(X - \overline{X}))^2}$$

$$= \sqrt{\frac{37.68}{5}}$$

$$= \text{Rs. 2.74 million}$$

**Interpretation**

Computed standard deviation has been found Rs 1.10(Nirvana) and 2.74 (Snwoland) which indicates very high degree of uniformity in holding cash balance in the fiscal year end.

In case of Nirvana carpet, calculation of coefficient of variation (C.V) further shows that the uniformity of cash balances held is very high but in case of Snow Land carpet it is average.

Coefficient of variation of Nirvana carpet (C.V.)    $= \dfrac{\dagger}{\overline{X}}$

$$= \frac{1.10}{1.52} X100$$

$$= 110.83\%$$

Coefficient of variation of Snow Land carpet (C.V.) $= \dfrac{\dagger}{\overline{X}}$

$$= \frac{2.74}{7.02} X100$$

$$= 39.05\%$$

**Interpretation**

Lower C.V. indicates higher consistency or highly stable cash balance where as higher C.V. indicates just the opposite. C.V. of 110.83% & 39.05% definitely signifies that the homogeneity in holding cash balance is very low.

### 4.2.2. Fitting the Straight Line Trend by Least Square Method for Variations in Cash and Bank Balance

This is one of the time series analyses, where future events of a variable (s) are forecasted over a regular interval of time based on the past events of the variables (s). Here, an effort has been made to forecast cash balance of export enterprises in future fiscal years, based on its past trend.

**Fitting the Straight Line Trend by Least Square Method for Variations in Cash Balance**

**(Rs in Million)**

| Fiscal year | Nirvana Carpet | | | | Snow Land carpet | | | |
|---|---|---|---|---|---|---|---|---|
| | (Y) Cash and Bank | Deviation from (X)(00) | XY | $X^2$ | (Y) Cash and Bank | Deviation from(X) (00) | XY | $X^2$ |
| 2059/60 | 0.80 | -0.73 | -0.58 | 0.53 | 4.70 | -2.32 | -10.90 | 5.38 |
| 2060/61 | 1.32 | -0.20 | -0.26 | 0.04 | 7.67 | 0.65 | 4.98 | 0.42 |
| 2061/62 | 1.85 | 0.32 | 0.59 | 0.10 | **5.95** | -1.07 | -6.37 | 1.14 |
| 2062/63 | 0.21 | -1.31 | -0.28 | 1.72 | 12.06 | 5.04 | 60.78 | 25.40 |
| 2063/64 | 3.45 | 1.92 | 6.62 | 3.69 | 4.71 | -2.31 | -10.88 | 5.34 |
| Total | Y= 7.63 | X=0 | XY= 6.09 | $X^2$= 6.08 | Y= **35.10** | X=0 | 37.61 | 37.68 |

The equation of straight line trend is given by $Y_c = a + bx$

**For Nirvana Carpet,** Here, $a = \dfrac{\sum Y}{N} = \dfrac{7.63}{5} = 1.52$

$$b = \frac{\sum XY}{\sum X^2} = \frac{6.09}{6.08} = 1.00$$

$Y_C = a + bx$

$= 1.52 + (1) X$

$= 1.52 + 1X$

**For Snow Land Carpet,** Here, $a = \dfrac{\sum Y}{N} = \dfrac{35.10}{5} = 7.02$

$$b = \frac{\sum XY}{\sum X^2} = \frac{35.10}{37.68} = 0.93$$

$$Y_{C} = a + bx$$
$$= 7.02 + 0.93\ X$$
$$= 7.02 + 0.93X$$

**Interpretation**

The trend line for Snow Land carpet shows negative figure of cash balance in future. The annual rate of decrement in cash balance has been calculate Rs $0.93 \times 1000$, 000 = Rs 930000.

**Figure 9**

**Trend Line for Variation in Cash Balance**
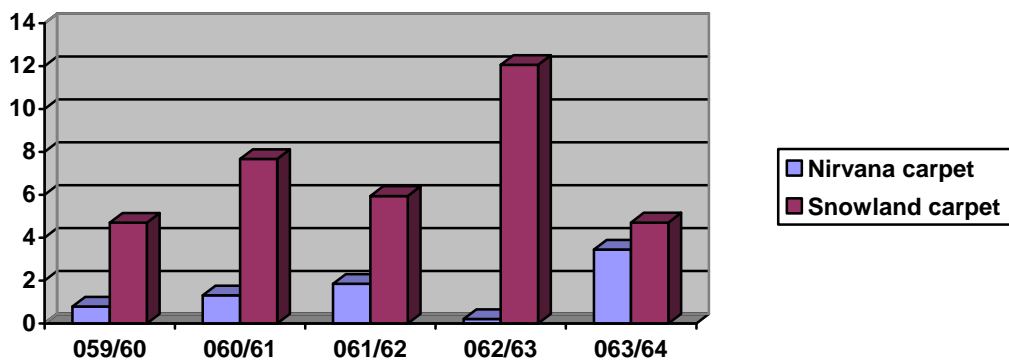


**4.2.3 (A): Analysis of Karl Pearson's Coefficient of Correlation (r) between Sales and Cash Balance**

To find correlation between sales and cash balance, Karl Pearson's coefficient of correlation(r) is determined. For this purpose sales (x) are assumed to be dependence variables and cash balance (Y) are assumed to be independent variables. At first it is assumed that actual sales will increase as cash balance will increase and vice-versa. It means there should be positive correlation between cash balance and sales. The significance of correlation 'r' is rested with probable error (P.E.).

## Analysis of Karl Pearson's Coefficient of Correlation (r) between Sales and Cash Balance

**Nirvana Carpet**                                                                      **(Rs in Million)**

| Fiscal year | Sales (x) | Cash Balance (Y) | (x-$\overline{X}$) (μ) | (y-$\overline{Y}$) (v) | μv | μ² | v² |
|---|---|---|---|---|---|---|---|
| 2059/60 | 20.91 | 0.80 | -12.02 | -0.73 | 8.77 | 144.48 | 0.53 |
| 2060/61 | 31.17 | 1.32 | -1.75 | -0.20 | 0.35 | 3.06 | 0.04 |
| 2061/62 | 23.14 | 1.85 | -9.79 | 0.32 | 3.13 | 95.84 | 0.10 |
| 2062/63 | 37.32 | 0.21 | 4.39 | -1.31 | 5.75 | 19.27 | 1.72 |
| 2063/64 | 52.10 | 3.45 | 19.17 | 1.92 | 36.81 | 38.34 | 3.69 |
|  | 164.65 | 7.64 |  |  | 54.81 | 300.99 | 6.08 |

$$Mean(\overline{X}) = \frac{\sum X}{N} = \frac{164.65}{5} = 32.93 \text{ Million}$$

$$Mean(\overline{Y}) = \frac{\sum Y}{N} = \frac{7.64}{5} = 1.52$$

$$\text{Karl Pearson's Correlation (r)} = \frac{\sum \sim \text{€}}{\sqrt{\sum \sim^2 . \sum v^2}}$$

$$= \frac{54.81}{\sqrt{(300.99)(6.08)}}$$

$$= 1.28 \text{ million}$$

**Snow Land Carpet**                                                                      **(Rs in Million)**

| Fiscal year | Sales (x) | Cash Balance (Y) | (x-$\overline{X}$) (μ) | (y-$\overline{Y}$) (v) | μv | μ² | v² |
|---|---|---|---|---|---|---|---|
| 2059/60 | 12.70 | 4.70 | -2.09 | -2.31 | 4.83 | 4.36 | 5.34 |
| 2060/61 | 35.02 | 7.67 | 20.22 | 0.64 | 12.94 | 408.85 | 0.41 |
| 2061/62 | 9.44 | 5.95 | -5.34 | -1.07 | 5.71 | 28.52 | 1.14 |
| 2062/63 | 8.48 | 12.05 | -6.31 | 5.04 | -31.80 | 39.82 | 25.40 |
| 2063/64 | 8.30 | 4.72 | -6.48 | -2.30 | 14.90 | 41.99 | 5.29 |
|  | 73.96 | 35.10 |  |  | =6.58 | = 523.54 | = 37.58 |

$$Mean(\overline{X}) = \frac{\sum X}{N} = \frac{73.96}{5} = 14.79 \text{ Million}$$

$$Mean(\overline{Y}) = \frac{\sum Y}{N} = \frac{35.10}{5} = 7.02$$

$$\text{Karl Pearson's Correlation (r)} = \frac{\sum \sim \text{\euro}}{\sqrt{\sum \sim^2 . \sum v^2}}$$

$$= \frac{6.58}{\sqrt{(523.54)(37.58)}}$$

$$= 0.05 \text{ million}$$

This shows that there exists positive correlation between sales volume and cash balance. The correlation should be statistically significant to ascertain that there practically exists correlation between the two variables. For this purpose, probable error has been calculated as follows:

**For Nirvana Carpet**, Probable Error (P.E) $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$$= \frac{0.6745(1 - 1.28^2)}{\sqrt{5}}$$

$$= -0.19$$

6 x (P.E.) = 6 x -0.19 = -1.14

For Snow Land Carpet, Probable Error (P.E) $= \dfrac{0.6745(1 - r^2)}{\sqrt{N}}$

$$= \frac{0.6745(1 - 0.05^2)}{\sqrt{5}}$$

$$= 0.30$$

6 x (P.E.) = 6 x 0.30 = 1.8

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

In the case of Nirvana carpet, r > 6 (P.E). i.e. 1.28 > -1.14. This implies, though there exists positive correlation between the two, but in case of Snow Land carpet it is opposite i.e. r < 6(P.E) this shows there is negative correlation between the two.

This shows that the company has not been practically following the general rule of higher sales volume, higher cash balance and vice-versa.

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

For Nirvana carpet

r+P.E. = 1.28 + (-0.19) = 1.09 (upper limit)

r- P.E. = 1.28-(- 0.19) = 1.47 (lower limit)

So, the coefficient of correlation is expected to lie between 1.09 and 1.47.

## 4.2.3. (B): Regression Analysis

A regression line can also be fitted to show the degree of relationship between sales and cash balance. Cash balance can be forecasted by the value of sales. For this purpose, cash balance and sales have been assumed interrelated economic variables.

The regression line of sales (X) on cash balance (Y) is given by,

$$(X - \overline{X}) = r.\frac{\dagger X}{\dagger Y}(Y - \overline{Y})$$

Where,

$\overline{X}$ = Mean sales= 32.93

$\overline{Y}$ = Mean cash balance = 1.52

6x= standard deviation of sales

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

$$= \sqrt{\frac{300.99}{5}}$$

=Rs. 7.76 million

6y= Standard deviation of cash.

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

$$= \sqrt{\frac{6.08}{5}}$$

=Rs. 1.10 million.

r = Karl Pearson's coefficient of correlation = 1.28

Now,

$$(X - \overline{X}) = r.\frac{\dagger X}{\dagger Y}(Y - \overline{Y})$$

Or, (X-32.93) $= 1.28 \times \dfrac{7.76}{1.10}(Y - 1.52)$

Or, (X-32.93) = 9.03 (Y-1.52)

Or, X = 9.03Y +19.20

X = 19.20 + 9.03Y

This equation shows that sales are estimated to increase by 9.03 per unit increase in cash balance.

Likewise, the regression line of cash balance (Y) on sales (X) can be computed as follows.

$$(Y - \overline{Y}) = r.\frac{\dagger Y}{\dagger X}(X - \overline{X})$$

Or, (Y -1.52) $= 1.28 \times \dfrac{1.10}{7.76}(X - 32.93)$

Or, Y – 1.52= 0.1417 (X -32.93)

Or, Y -1.52 = 0.1417X -4.67

Y = 3.15 + 0.1417 X

This shows that cash balance is estimated to increase by 0.1417 units per increase in sales.

## 4.2.4. (A) Analysis of Karl Pearson's Coefficient of Correlation (r) between Account Receivables and Cash Balance

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

**Analysis of Karl Pearson's Coefficient of Correlation between Account Receivables and Cash Balance**

**Nirvana Carpet** (Rs in Million)

| Fiscal year | Receivable (X) | Cash (Y) | $(x-\overline{X})$ $(\mu)$ | $(y-\overline{Y})$ $(v)$ | $\mu v$ | $\mu^2$ | $v^2$ |
|---|---|---|---|---|---|---|---|
| 2059/60 | 8.34 | 0.80 | 2.99 | -0.73 | -2.18 | 8.94 | 0.53 |
| 2060/61 | 0.66 | 1.32 | -4.69 | -0.21 | 0.98 | 21.99 | 0.04 |
| 2061/62 | 0.35 | 1.85 | -5 | 0.32 | -1.6 | 25 | 0.10 |
| 2062/63 | 4.67 | 0.21 | -0.68 | -1.32 | 0.89 | 0.46 | 1.74 |
| 2063/64 | 12.71 | 3.45 | 7.36 | 1.92 | 14.13 | 54.17 | 3.68 |
| Total | =26.73 | 7.64 | | | 12.22 | 110.56 | 6.09 |

For Nirvana Carpet Mean $(\overline{X}) = \dfrac{\sum X}{N} = \dfrac{26.73}{5} = 5.35$

Mean $(\overline{Y}) = \dfrac{\sum Y}{N} = \dfrac{7.64}{5} = 1.53$

$\therefore$ Karl Pearson's Correlation (r) $= \dfrac{\sum \sim v}{\sqrt{\sum \sim^2 \cdot \sum v^2}}$

$= \dfrac{12.22}{\sqrt{(110.56)(6.09)}}$ = 0.47

**Snow Land Carpet** (Rs in Million)

| Fiscal year | Receivable (X) | Cash (Y) | $(x-\overline{X})$ $(\mu)$ | $(y-\overline{Y})$ $(v)$ | v | $\mu^2$ | $v^2$ |
|---|---|---|---|---|---|---|---|
| 2059/60 | 0.27 | 4.70 | -1.27 | -2.32 | 2.95 | 1.61 | 5.38 |
| 2060/61 | 0.87 | 7.67 | -0.67 | 0.65 | -0.43 | 0.45 | 0.42 |
| 2061/62 | 1.33 | 5.95 | -0.21 | -1.07 | 0.22 | 0.04 | 1.14 |
| 2062/63 | 0.53 | 12.06 | -1.01 | 5.04 | -5.09 | 1.02 | 25.40 |
| 2063/64 | 4.69 | 4.72 | 3.15 | -2.3 | -7.24 | 9.92 | 5.29 |
| Total | =7.69 | 35.10 | | | -9.59 | 13.04 | 37.63 |

For Snow land Carpet Mean $(\overline{X}) = \dfrac{\sum X}{N} = \dfrac{7.69}{5} = 1.54$

Mean $(\overline{Y}) = \dfrac{\sum Y}{N} = \dfrac{35.10}{5} = 7.02$

$$\therefore \text{ Karl Pearson's Correlation (r)} \quad = \frac{\sum \tilde{~}v}{\sqrt{\sum \tilde{~}^2 \cdot \sum v^2}}$$

$$= \frac{-9.59}{\sqrt{(13.04)(37.63)}} \quad = -0.43$$

This shows that three exists negative correlation between account receivable and cash balance.

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

$$r = -0.43$$
$$|r| = |-0.43| = 0.43$$

Now,

Calculation of probable error (P.E.)

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

$$= \frac{0.6745(1-(0.43)^2)}{\sqrt{5}}$$

$$= 0.2454$$

$$6(\text{P.E.}) = 6 \times 0.2454$$

$$= 1.4727$$

Now, If |r| >6 (P.E), it is indicative of statistically significant negative correlation. Likewise, if |r| <P.E, it is indicative of statistically insignificant negative correlation.

But in the case of Snow Land carpet, P.E < |r| < 6 (P.E), i.e. 0.2454 < 0.43 < 1.4727. This implies, though there exists negative correlation between the two, no conclusion could be derived as to statistically significant/insignificant.

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

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

$$r + \text{P.E} = -0.43 + 0.2454 = -0.1846 \text{ (Upper Limit)}$$
$$r - \text{P.E} = -0.43 - 0.2454 = -0.6745 \text{ (Lower Limit)}$$

So, the correlation coefficient is expected to lie between – 0.1846 an -0.6745.

## 4.2.4. (B): Regression Analysis

A regression line can also be fitted to show the degree relationship between account receivables and cash balance.

The regression line of receivable (X) on cash balance (Y) is given by,

$$(X - \overline{X}) = r. \frac{\dagger X}{\dagger Y}(Y - \overline{Y})$$

Where,

$\overline{X}$ = Mean receivables = 5.35

$\overline{Y}$ = Mean Cash balance = 1.53

$\dagger x$ = standard deviation of receivables

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

$$= \sqrt{\frac{110.56}{5}}$$

=Rs. 4.7023 million

$\dagger y$ = Standard deviation of cash balance

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

$$= \sqrt{\frac{6.09}{5}}$$

= Rs. 1.1036 million

r = Karl Pearson's coefficient of correlation = 0.47

Now,

$$(X - \overline{X}) = rX\frac{\dagger x}{\dagger y}(Y - \overline{Y})$$

or, $(X-5.35) = 0.47\frac{4.70}{1.10}(Y\text{-}1.53)$

or, (X-5.35) = 2.01 (Y-1.53)

or, X – 5.35 = 2.01Y + 3.07

∴ X = 8.42+2.01Y

This equation shows that receivables are estimated to increase by 2.01 per unit increase in cash balance.

Likewise, the regression line of cash balance (Y) on receivables (X) can be computed as follows.

$$(Y - \overline{Y}) = r.\frac{\dagger y}{\dagger x}(X - \overline{X})$$

or,     $(Y-1.53) = 0.47 \times \dfrac{1.10}{4.70}$ (X-5.35)

or,     $(Y-1.53) = 0.11$ (x-5.35)

or     $Y-1.53 = 0.11X - 0.59$

$\therefore Y = 0.11X + 0.94$

This shows that cash balance is estimated to increase by 0.11 per unit increase in receivable.

## 4.2.5. Analysis of Karl Pearson's Coefficient of Correlation (r) between Current Assets and Cash Balance

To find – out the correlation between current assets and cash balance, Karl Pearson's coefficient of correlation (r) is determined. For this purpose current assets and cash balance are assumed to be interrelated economic variables. Let us assume current assets as 'X' are dependent variables and cash balance 'Y' are independent variables.

**Analysis of Karl Pearson's Coefficient of Correlation (r) between Current Assets and Cash Balance**

**Nirvana Carpet**                                                                 **(Rs in Million)**

| Fiscal year | Current Assets (X) | Cash (Y) | (X-X) (µ) | (Y-Y) (v) | v | µ$^2$ | v$^2$ |
|---|---|---|---|---|---|---|---|
| 2059/60 | 12.08 | 0.80 | -1.85 | -0.73 | 1.35 | 3.42 | 0.53 |
| 2060/61 | 9.85 | 1.32 | -4.08 | -0.21 | 0.85 | 16.64 | 0.04 |
| 2061/62 | 10.60 | 1.85 | -3.33 | 0.32 | -1.06 | 11.08 | 0.10 |
| 2062/63 | 12.92 | 0.21 | -1.02 | -1.32 | 1.34 | 1.04 | 1.74 |
| 2063/64 | 24.21 | 3.45 | 10.28 | 1.92 | 19.73 | 105.67 | 3.68 |
| Total | 69.66 | 7.64 | | | 22.21 | 137.85 | 6.09 |

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N} = \frac{69.66}{5} = 13.93$$

$$\text{Mean } (\overline{Y}) = \frac{\sum Y}{N} = \frac{7.64}{5} = 1.53$$

$$\therefore \text{Karl Pearson's Correlation (r)} = \frac{\sum \sim v}{\sqrt{\sum \sim^2 \cdot \sum v^2}}$$

$$= \frac{22.21}{\sqrt{137.85 \, X \, 6.09}}$$

$$= 0.77$$

**Snow Land Carpet**                                              **(Rs in Million)**

| Fiscal year | Current Assets (X) | Cash (Y) | (X-X) (μ) | (Y-Y) (v) | v | $\mu^2$ | $v^2$ |
|---|---|---|---|---|---|---|---|
| 2059/60 | 18.86 | 4.70 | 2.87 | -2.32 | -6.65 | 8.2 | 5.38 |
| 2060/61 | 16.34 | 7.67 | 0.35 | 0.65 | 0.22 | 0.12 | 0.42 |
| 2061/62 | 14.12 | 5.95 | -1.87 | -1.07 | 2.00 | 3.49 | 1.14 |
| 2062/63 | 19.68 | 12.06 | 3.69 | 5.04 | 18.59 | 13.61 | 25.40 |
| 2063/64 | 10.95 | 4.72 | -5.04 | -2.30 | 11.59 | 25.40 | 5.29 |
| Total | 79.97 | 35.10 | | | 25.75 | 50.85 | 37.63 |

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N} = \frac{79.97}{5} = 15.99$$

$$\text{Mean } (\overline{Y}) = \frac{\sum Y}{N} = \frac{35.10}{5} = 7.02$$

$$\therefore \text{Karl Pearson's Correlation (r)} = \frac{\sum \sim v}{\sqrt{\sum \sim^2 \cdot \sum v^2}}$$

$$= \frac{25.75}{\sqrt{50.85 \, X \, 37.63}}$$

$$= 0.59$$

This shows that there exists positive correlation between current assets and cash balance. The correlation should be statistically significant to ascertain that there practically exists correlation between the two variables. For this purpose, probable error has been calculated as follows.

$$\text{For Nirvana carpet, Probable Error (P.E)} = \frac{0.6745(1 - r^2)}{\sqrt{N}}$$

$$= \frac{0.6745(1 - 0.77)^2}{\sqrt{5}}$$

$$= 0.12$$

$$6 \text{ x (P.E)} = 6 \text{x } 0.12 = 0.72$$

For Snow Land carpet, Probable Error (P.E) $= \dfrac{0.6745(1-r^2)}{\sqrt{N}}$

$$= \dfrac{0.6745(1-0.59)^2}{\sqrt{5}}$$

$$= 0.20$$

6 x (P.E) = 6x 0.20 = 1.20

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

Likewise, If r< (P.E), it is indicative of statistically insignificant positive correlation.

But in this case, P.E. < r < 6 (P.E), i.e. 0.2244 < 0.3459 < 1.3464. This implies, though there exists positive correlation between the two, no conclusion could be derived as to statistically significant/insignificant.

This shows that the company has not been practically following the general rule of higher current-assets, higher cash balance and vice-versa.

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

r + P. E = 0.59 + 0.20 = 0.79 (Upper Limit)

r – P. E = 0.59 – 0.20 = 0.39 (Lower Limit)

So, the coefficient of correlation is expected to lie between 0.79 and 0.39.

## 4.2.6. Analysis of Karl Pearson's Coefficient of Correlation (r) between Current Liabilities and Cash Balance

To find-out the correlation between current liabilities and cash balance, Karl Pearson's coefficient of correlation (r) is determined. For this purpose current liabilities and cash balance are assumed to be interrelated economic variables. Let us assumed current liabilities as 'X' are dependent variables and cash balance 'Y' are independent variables.

**Analysis of Karl Pearson's Coefficient of Correlation (r) between Current Liabilities and Cash Balance**

**Nirvana Carpet**                                                    **(Rs in Million)**

| Fiscal year | Current Liabilities (X) | Cash (Y) | (X-X) (μ) | (Y-Y) (v) | v | μ² | v² |
|---|---|---|---|---|---|---|---|
| 2059/60 | 9.73 | 0.80 | -0.17 | -0.72 | 0.12 | 0.03 | 0.51 |
| 2060/61 | 6.05 | 1.32 | -3.85 | -0.20 | 0.77 | 14.82 | 0.04 |
| 2061/62 | 9.51 | 1.85 | -0.39 | 0.33 | -0.12 | 0.15 | 0.11 |
| 2062/63 | 5.90 | 0.21 | -4 | -1.31 | 5.24 | 16.00 | 1.71 |
| 2063/64 | 18.34 | 3.45 | 8.44 | 1.93 | 16.28 | 71.23 | 3.72 |
| Total | 49.53 | 7.64 | | | 22.29 | 102.23 | 6.09 |

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N} = \frac{49.53}{5} = 9.90$$

$$\text{Mean } (\overline{Y}) = \frac{\sum Y}{N} = \frac{7.64}{5} = 1.52$$

$$\therefore \text{ Karl Pearson's Correlation (r)} = \frac{\sum \sim v}{\sqrt{\sum \sim^2 . \sum v^2}}$$

$$= \frac{22.29}{\sqrt{102.23 x 6.09}}$$

$$= 0.89$$

**Snow Land Carpet**                                                    **(Rs in Million)**

| Fiscal year | Current Liabilities (X) | Cash (Y) | (X-X) (μ) | (Y-Y) (v) | v | μ² | v² |
|---|---|---|---|---|---|---|---|
| 2059/60 | 3.85 | 4.70 | 1.01 | -2.32 | -2.34 | 1.02 | 5.38 |
| 2060/61 | 3.44 | 7.67 | 0.60 | 0.65 | 0.39 | 0.36 | 0.42 |
| 2061/62 | 4.43 | 5.95 | 1.59 | -1.07 | -1.70 | 2.53 | 1.14 |
| 2062/63 | 2.45 | 12.06 | -0.39 | 5.04 | -1.96 | 0.15 | 25.40 |
| 2063/64 | 0.07 | 4.72 | -2.77 | -2.30 | 6.37 | 7.67 | 5.29 |
| Total | 14.24 | 35.10 | | | 0.76 | 11.73 | 37.63 |

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N} = \frac{14.24}{5} = 2.84$$

Mean $(\bar{Y}) = \dfrac{\sum Y}{N} = \dfrac{35.10}{5} = 7.02$

$\therefore$ Karl Pearson's Correlation (r) $= \dfrac{\sum \sim v}{\sqrt{\sum \sim^2 . \sum v^2}}$

$= \dfrac{0.76}{\sqrt{11.73 x 37.63}}$

$= 0.04$

Since, correlation coefficient is positive, it indicates that there exists +ve correlation between current liabilities and cash balance.

Calculation of probable error (P.E)

For Nirvana carpet, Probable Error (P.E) $= \dfrac{0.6745(1-r^2)}{\sqrt{N}}$

$= \dfrac{0.6745(1-0.89)^2}{\sqrt{5}}$

$= 0.06$

6 x (P.E) = 6x 0.06 = 0.36

For Snow Land carpet, Probable Error (P.E) $= \dfrac{0.6745(1-r^2)}{\sqrt{N}}$

$= \dfrac{0.6745(1-0.04)^2}{\sqrt{5}}$

$= 0.30$

6 x (P.E) = 6x 0.30 = 1.80

For Nirvana carpet r = 0.89, which is higher than probable error (P.E) = 0.06, i.e. r >P.E, it indicates that positive correlation between these two variables is practically significant. In other words, when cash balances held increase, the current liabilities increase, and vice- versa.

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

r + P.E = 0.89+ 0.06 = 0.95 (Upper Limit)

r – P.E = 0.89 – 0.06 = 0.83 (Lower Limit)

Hence, the correlation coefficient is expected to lie between 0.95 and 0.83.

But in case of Snow land carpet r<P.E there is insignificant positive correlation between two variables.

## 4.2.7. Analysis of Karl Pearson's Coefficient of Correlation (r) between Net profit after Tax and Cash balance

To find-out the correlation between net profit after tax and cash balance, Karl Pearson's coefficient of correlation (r) is determined. For this purpose, Net profits after tax and cash balance are assumed to be interrelated economic variables. Let us assumed Net profit after tax as 'X' are dependent variables and cash balance 'Y' are independent variables.

**Analysis of Karl Pearson's Coefficient of Correlation (r) between Net Profit of Tax and Cash Balance**

**Nirvana Carpet**                                                 **(Rs in Million)**

| Fiscal year | Net profit after tax (X) | Cash (Y) | $(X-\overline{X})$ ($\mu$) | $(Y-\overline{Y})$ (v) | v | $\mu^2$ | $v^2$ |
|---|---|---|---|---|---|---|---|
| 2059/60 | 1.30 | 0.80 | -0.28 | -0.73 | 0.20 | 0.07 | 0.53 |
| 2060/61 | 1.93 | 1.32 | 0.35 | -0.21 | -0.07 | 0.12 | 0.04 |
| 2061/62 | 1.05 | 1.85 | -0.53 | 0.32 | -0.71 | 0.28 | 0.10 |
| 2062/63 | 1.32 | 0.21 | -0.26 | -1.32 | 0.34 | 0.07 | 1.74 |
| 2063/64 | 2.30 | 3.45 | 0.72 | 1.92 | 1.38 | 0.52 | 3.68 |
| Total | 7.90 | 7.64 | | | 1.68 | 1.06 | 6.09 |

For Nirvana, Mean $(\overline{X}) = \dfrac{\sum X}{N} = \dfrac{7.90}{5} = 1.58$

Mean $(\overline{Y}) = \dfrac{\sum Y}{N} = \dfrac{7.64}{5} = 1.53$

$\therefore$ Karl Pearson's Correlation (r) $= \dfrac{\sum \sim v}{\sqrt{\sum \sim^2 . \sum v^2}}$

$= \dfrac{1.68}{\sqrt{1.06 x 6.09}}$

$= 0.66$

**Snow Land Carpet**                                                    **(Rs in Million)**

| Fiscal year | Net profit after tax (X) | Cash (Y) | $(X-\overline{X})$ (μ) | $(Y-\overline{Y})$ (v) | v | μ² | v² |
|---|---|---|---|---|---|---|---|
| 2059/60 | 1.19 | 4.70 | 0.06 | -2.32 | -0.14 | 0.01 | 5.38 |
| 2060/61 | 3.59 | 7.67 | 2.46 | 0.65 | 1.60 | 6.05 | 0.42 |
| 2061/62 | 0.22 | 5.95 | -0.91 | -1.07 | 0.97 | 0.83 | 1.14 |
| 2062/63 | 0.30 | 12.06 | -0.83 | 5.04 | -4.18 | 0.69 | 25.40 |
| 2063/64 | 0.33 | 4.72 | -0.80 | -2.30 | 1.84 | 0.64 | 5.29 |
| Total | 5.63 | 35.10 | | | 0.09 | 8.22 | 37.63 |

For Snow Land carpet, Mean $(\overline{X}) = \dfrac{\sum X}{N} = \dfrac{5.63}{5} = 1.13$

Mean $(\overline{Y}) = \dfrac{\sum Y}{N} = \dfrac{35.10}{5} = 7.02$

$\therefore$ Karl Pearson's Correlation (r) $= \dfrac{\sum \~v}{\sqrt{\sum \~^2 . \sum v^2}}$

$= \dfrac{0.09}{\sqrt{8.22 x 37.63}}$

$= 0.01$

Since, there exists positive correlation between Net profit after tax and cash balance. The correlation should be statistically significant to ascertain that there practically exists correlation between the two variables. For this purpose, probable error has been calculated as follows.

For Nirvana carpet, Probable Error (P.E) $= \dfrac{0.6745(1-r^2)}{\sqrt{N}}$

$= \dfrac{0.6745(1-0.66)^2}{\sqrt{5}}$

$= 0.17$

6 x (P.E) = 6x 0.17 = 1.02

For Snow Land carpet, Probable Error (P.E) $= \dfrac{0.6745(1-r^2)}{\sqrt{N}}$

$$= \frac{0.6745(1 - 0.01)^2}{\sqrt{5}}$$

$$= 0.30$$

$$6 \text{ x (P.E)} = 6\text{x } 0.30 = 1.80$$

For the Nirvana carpet r> P.E, it is indicative of statistically significant positive correlation but in the case of Snow land carpet r<PE it indicate that there is statistically insignificant +ve correlation. Again in the case of Nirvana carpet, P.E <r <6 (P.E), i, e. 0.17 < 0.66 < 1.02. This implies though there exists positive correlation between the two, no conclusion could be derived as to statistically significant / insignificant.

This shows that the company has been practically following the general rule of higher net profit after tax, higher cash balance and vice versa.

For Nirvana carpet
The upper and lower limits within which the correlation coefficient is expected to lie are given by;

r + P.E = 0.66 + 0.17 = 0.83 (Upper Limit)

r – P. E = 0.66 – 0.17 = 0.49 (Lower Limit)

So, the coefficient of correlation is expected to lie between 0.83 and 0.49.

## 4.3. Analysis of Cash Flow Statement

Cash flow statement of the company signifies the movements of cash in and out of company. Inflow of cash is known as sources of cash and outflow of cash is known as uses 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 presented on the heading of cash flow from operating activities, cash flow from financing activities and cash flow from investing activities for the fiscal year 2059/60 to 2063/64.

### 4.3.1. Analysis of Operating Activities

**Table No 14**

**Operating Activities of Nirvana and Snow land Carpet Industries**

**Nirvana Carpet Industries**

| Statements | FY (2059/60) | FY (2060/61) | FY (2061/62) | FY (2062/63) | FY (2063/64) |
|---|---|---|---|---|---|
| **A:Cash Flow From Operating Activities** | | | | | |
| Net profit before taxation and extra ordinary items | 13.01 | 3.85 | 2 | 2.85 | 4.95 |
| Adjustment for: | | | | | |
| a) Depreciation | 0.72 | 0.72 | 0.78 | 11.89 | 21.49 |
| b) Interest income | ...... | ...... | ........ | .......... | .......... |
| **Operating profit before working capital change** | | | | | |
| **(Increase)/Decrease in current assets** | | | | | |
| Advance | -0.27 | 0.06 | 0.05 | 0.12 | -0.09 |
| Deposit | 10 | 3.85 | 2 | 2 | 2 |
| Stock in hand | ....... | -49.32 | -5.29 | 3.55 | 0.03 |
| Sundry debtors | ..... | 70.59 | 1.24 | -43.32 | -80.33 |
| **(Increase)/Decrease in current liabilities** | | | | | |
| Sundry creditors | 97.27 | 41.20 | -0.63 | -13.15 | -90.82 |
| Cash generated from operations | | (67.94) | 2.55 | 16.45 | 169.67 |
| Income tax paid | 1.89 | 4.47 | 2.30 | 2.85 | 4.95 |
| Interest paid | -0.07 | -1.82 | -0.48 | -0.18 | ....... |
| Cash flow before extra ordinary items | | | | | |
| **Net Cash Flow From Operating Activities** | | | | | |

**Source: Cash Flow Statement Anex-2**

**Snow Land Carpet Industries**

| Statements | FY (2059/60) | FY (2060/61) | FY (2061/62) | FY (2062/63) | FY (2063/64) |
|---|---|---|---|---|---|
| **A:Cash Flow From Operating Activities** | | | | | |
| Net profit before taxation and extra ordinary items | 1.19 | 3.60 | 0.23 | 0.31 | 0.34 |
| Adjustment for: | | | | | |
| a) Depreciation | 0.31 | 0.37 | 0.27 | 0.29 | 0.18 |
| b) Interest income | | | | | |
| **Operating profit before working capital change** | | | | | |
| **(Increase)/Decrease in current assets** | -18.87 | 2.52 | 2.23 | -5.56 | 8.72 |
| **(Increase)/Decrease in current liabilities** | -7.91 | -4.27 | -0.13 | -4.92 | 11.76 |
| Cash generated from operations | 28.45 | -1.58 | -2.03 | 15.55 | -28.71 |
| Income tax paid | 0.22 | 0.27 | 0.07 | 0.06 | 0.07 |
| Interest paid | | | | | |
| | | | | | |
| Cash flow before extra ordinary items | | | | | |
| **Net Cash Flow From Operating Activities** | | | | | |

**Source: Cash Flow Statement Anex-2**

Overall, the operating activities of carpet export have been observed to be moderate on account of the fact that there occurred cash inflows as well as outflows from such operating activities in FYs under study. However, there have been high fluctuations observed in such cash inflows and outflows, ranging from the highest outflow of (Rs 80.33 in case of Nirvana carpet) million in FY 2063/64 and the highest inflow of Rs 169.67 million in FY 2063/64. A moderate fluctuation is favored in view of sound operating activities.

### 4.3.2. Analysis of Investing Activities

**Table No 15**

**Investing Activities of Nirvana and Snow land Carpet Industries**

**Nirvana Carpet Industries**

| B:Cash Flow From Investing Activities | | | | | |
|---|---|---|---|---|---|
| (Purchase)sales of fixed assets | (4.48 ) | (0.48) | 0.78 | 0.59 | 0.56 |
| (Increase)/Decrease in loan and deposit | - | - | - | - | |
| Net Cash Flow From Investing Activities | | | | | |

Source: Cash Flow Anex-2

**Snow Land Carpet Industries**

| B:Cash Flow From Investing Activities | | | | | |
|---|---|---|---|---|---|
| (Purchase)sales of fixed assets | -1.39 | 2.06 | -2.36 | 0.37 | 0.31 |
| (Increase)/Decrease in loan and deposit | | | | | |
| Net Cash Flow From Investing Activities | | | | | |

Source: Cash Flow Statement Anex-2

Investing activities of carpet exporter have been observed to be the idlest of all three activities involved in cash flow statement. This activity has incurred cash outflows every year ranging from (Rs -4.08) million to (Rs 0.78) million in FYs 2059/60 and 2060/61 in case of Nirvana carpet and in case of Snow land carpet this range is from(Rs -2.36) to Rs 2.06 million . These negative figures, i.e. cash outflows under the heading: Net cash flow from investing activities in all FYs verify the fact that there never occurred cash inflow from investing activities. Only a small portion of surplus cash has been found invested in

short – term investments, and as such, there never occurred cash inflow from investing activities.

### 4.3.3. Analysis of Financing Activities

Financing activities has been observed to be the poorest of all the three activities. This activity has been stated the idlest activity has been stated the idlest activity on the grounds that it has neither generated cash inflows nor outflows. Thus, the financing activity of the company has been seen the most passive activity, and hence the company should increase its financing activity by various financial activities such as, loan borrowings, issue of shares debentures etc.

## 4.4. Analysis of Budgeting Allocation Practice of Carpet Exporting Enterprises

One of the indications that a exporter is said to be working under sound condition is when its investment expenses exactly coincide with the prior allocated budget. However, in practice rarely does these two coincide, and as such tendency to coincide is indicative of sound cash investment. So, if a ratio of 'Approved Budget' to expenses is 1:1, it indicates that cash investment decision in the firm is in its best suit. A ratio nearing to 1:1 can also be considered satisfactory, however too high ratio indicates that the firm is over cautious of cash deficit and as such allocates higher budget than required. Likewise, a ratio lower to 1:1 refers that the company faces cash deficit in its investment and signals serious problems in meeting cash payments.

### 4.4.1. Analysis of Approved Current Assets Investment Budget

Since, cash management deals with the management of cash in the short-run, a time period of not more than one year, cash budget for fixed assets investment, which is a long-term investment decision doesn't come under the scope of this study. Hence, analyses of fixed assets investment have not been extensively included in the study. Hence, subsequently, approved current assets investment budget and expanses has been analyzed.

From the below table clearly indicates that each year the company has been holding excess cash than required for its current assets investment. The figure further shows that the company has never faced any cash deficit in its current assets investment. The ratios of 1.51 in FY 2059/60, 1.29 in FY 2060/61, 1.44 in FY 2061/62 and 2.46 in FY 2063/64 suggest that the company has been over cautious of cash deficit and as such has been

holding more than enough cash balance. This is indicative of excess cash balance being held idle. A satisfactory ratio could only be observed in FY 2062/63 when the ratio is 1.05. Average ratio of 1.55 suggests that the company has not been following definite policy regarding allocation of cash budget.

**Table No 16**
**Analysis of Approved Budget and Expenses of Nirvana Carpet**

**(Rs in Million)**

| Statement | FY (2059/60) | | FY (2060/61) | | FY (2061/62) | | FY (2062/63) | | FY (2063/64) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Approve. | Expenses | Approve. | Expenses | Approve. | Expenses | Approve. | Expenses | Approve | Expenses |
| | Budget | | Budget | | Budget | | Budget | | Budget | |
| Raw materials | 70.00 | 41.50 | 72.00 | 45.78 | 37.28 | 22.36 | 50.00 | 29.00 | 50.00 | 10.15 |
| Packing-materials | 35.00 | 22.50 | 36.00 | 19.58 | 12.66 | 11.52 | 11.50 | 17.75 | 20.00 | 5.3 |
| Lab. Chemicals | 0.22 | 0.15 | 0.30 | 0.16 | 0.20 | 0.07 | 0.20 | 0.07 | 0.10 | 0.006 |
| Other expenses | 41.55 | 32.80 | 41.55 | 50.76 | 49.70 | 35.61 | 32.48 | 43.01 | 62.2 | 38.23 |
| Total | 146.77 | 96.95 | 149.85 | 116.28 | 99.84 | 69.56 | 94.18 | 89.83 | 132.3 | 53.69 |
| Ratio | 1.51 | | 1.29 | | 1.44 | | 1.05 | | 2.46 | |
| Average Ratio | 1.55 | | | | | | | | | |

## 4.5 Analysis of Primary Information Collected Through Questionnaire

In course of analyzing the data, I have not only analyzed the secondary data. To make my research work more effective and accurate, I have also collect some primary data through the means of questionnaire by the help of company's employee having different post i.e., general manager, proprietor, senior account officer (auditor), sales manager, junior account officer.

There are 15 respondents in total who help me for filling up questionnaire because of the belongings of the information I had not consult the lower level employees of the company. On the basis of answers given by them, I am going to analyze the answers. For this purpose, I arrange the information in a tabular form which is in below and questionnaire given with options of answers are kept in last at annex.

Except some exception, there seems to be homogeneity in answers for the questionnaire numbers: 2, 3, 6, 7, 9, 11, 14, 15, 16, 17, and 19. On these questions most of the respondent's answers are match in each other where as different answers are given in remaining other questionnaire.

According to respondents answers it can be said that the company hold Cash for transaction motives, precautionary motives and speculative motives. From the above table shows that the company also prepared cash allocation /expenses budget annually. Most  of the respondents are in favor of cash allocation /expenses budget (cash budget) and one respondent is favor of projected balance method.

**Table No 17**

**Analysis of Respondent Answers**

| Q.No. | Number of Respondents | | | | | |
|---|---|---|---|---|---|---|
| | Option of Answers | | | | | |
| | Yes | No | A | B | c | d |
| 1 | | | 8 | 6 | 1 | |
| 2 | 15 | | | | | |
| 3 | | | 15 | | | |
| 4 | | | 12 | | 3 | |
| 5 | | | | | 15 | |
| 6 | 15 | | | | | |
| 7 | 15 | | | | | |
| 8 | | | 1 | 7 | 7 | |
| 9 | 15 | | | | | |
| 10 | | | | 2 | 13 | |
| 11 | | | 2 | 13 | | |
| 12 | 13 | 2 | | | | |
| 13 | | | 2 | 9 | 4 | |
| 14 | | 15 | | | | |
| 15 | 15 | | | | | |
| 16 | 15 | | | | | |
| 17 | | 15 | | | | |
| 18 | | | | | 4 | 11 |
| 19 | | 15 | | | | |
| 20 | | | 10 | 5 | | |

Source: Details of Questionnaires, Annex-3

There are different thought of the respondents for the conditions and circumstances to maintain minimum cash balance, some are in the favor of seasonal fluctuation in sales, some are in the favor of to meet future contingencies and some are in the favor of others. Most of the respondents are in the favor of making any investment of excess cash balance. Some respondents are in favor of assets investment for the business expansion where as some responds are in favor of assets investment in others.

From the above table, it is seen that the most of the respondents are in favor of bank borrowing if cash balance falls below its minimum cash balance. Some respondents are in favor of following any specific method for cash collection and some respondents are not in favor of following any specific method for cash collection. Some respondents answered that the major problems of the company is inadequate cash balance while managing the cash and some respondents answered that the major problems of the

company is problem of effective utilization of cash. Most of the respondents are in the favor of not using any standard methods or models for determining optimal cash balance.

Most of the respondents are in favor of uniform terms of credit allowed to customer and charging interest on delayed payments as well as offering cash discount to the customers for early payment. There is no any advance payment system from customers and out of four, one say that the company takes advantage of cash discount rarely and three respondents says that the company never takes advantage of cash discount. According to respondents majority, it can be said that the organization does not able to pay its short term liabilities on due dates and this is due to shortage of cash, delayed payment by customers and decline in cash sales. There are different thought of the respondents for improving cash collection system, some are in the favor of initiate compromise, some are in the favor of charging higher rate of interest.

Thus, by analyzing this primary information it is found that the result of secondary data analysis and results of primary data analysis are matches in various major aspects.

Hence, finally the major and important part of this thesis i.e. presentation and analysis of data comes to an end. Overall, the cash management in carpet export has been analyzed to be moderate. However, the analysis presented here couldn't be considered complete and final. In subsequent chapter, major findings of the analysis and recommendations to remedy the situation have been presented systematically. In the like manner conclusion have been drawn at the end of this thesis.

## 4.6  Major Findings

Major findings has been presented under following headings corresponding to study objectives.

### 4.6.1. Overall Cash Management

**(1) Carpet Exporters don't have any definite policy regarding how much of Cash Balance to hold each Fiscal Year**

Cash and Bank balances held during fiscal years under study were observed to be high fluctuated. Dispersion of cash and bank balance of Rs 1.10 m (Nirvana) and 2.74 m (Snow land) and coefficient of variation (CV) of 110.83% (Nirvana) and 39.05% (Snow

land). Equation of straight line trend shows that cash balance decrease by Rs 10, 00,000 (Nirvana) and Rs 9, 30,000 (Snow land) every year. Thus the very fact indicated that the both company to be lacking definite policy regarding how much of cash and balance to hold each FY. Moreover the cash balance held is in increasing (Nirvana) and decreasing (Snow land) trend.

**(2) Carpet exporting Industries has not been forecasting cash balance taking into consideration the sales volume:**

Besides cash and bank balance held being fluctuated, such balances do not seem to comply with sales of the firm. Correlation coefficient between cash and bank balance and sales being positive of 1.28 m (Nirvana) and 0.05 m (Snow land) and the relation r > P.E >6 (P.E)(Nirvana) shows statistically significant positive correlation and 6(P.E)> P.E > r (Snow land) shows statistically insignificant positive correlation, showing little complicity of cash and bank balance with sales variable.

**(3) Carpet Exporting Industries fails to collect Receivables from its Sundry Debtors Timely:**

Proportion of Cash and Bank balance compared to its Account Receivables is not in satisfactory trend, and that Cash and Bank balance doesn't increase or decrease in the same pattern as Account receivable does, which suggests that holding of cash balance has no relation with Account Receivables of the company. The average ratio of cash and Bank balance to Account receivable are 154.39 for the Nirvana carpet and 1077.56 for the Snow land carpet which means, Nirvana carpet has average and Snow land carpet has higher ratio. In this case Snow land carpet seems to be the fact that the business dealing is restricted to only those parties making quick payment. Correlation between Cash and Bank balance and Account Receivables for the snow land carpet is negative i.e. -0.43 which suggests increase in Cash and Bank balance follows decrease in Account receivable and vice versa. Where as in case of Nirvana carpet the correlation is positive.

**(4) Carpet exporting industries fails to maintain an adequate proportion of cash in its Current Assets:**

Proportion of Cash and Bank balance in its current assets is very small and the cash balance held shown positive relation to the amount of current assets of carpet exporter. Average ratio of Cash and Bank to Current Assets are 10.68(nirvana) and 46.78(snow

land, which is very small portion of cash in current assets. Correlation coefficient between the two is 0.77 and 0.59 respectively.

**(5) Export industries have not been precisely meeting its Current Liabilities payment:**

The cash and Bank balance held compared to current liabilities indicate that for some FYs such cash and bank balance held is excessively low. This is yet another indication of mismanagement of cash. Moreover, cash and bank balance is positively correlated with current liabilities. The ratio of cash and bank to current liabilities are 14.38 (nirvana) and 1397.86(snow land) excess current liabilities compared to cash and bank with 0.89and 0.04 correlation.

**(6) Export Industries collect Cash through the Advance payment system.**

If we study about carpet Export from Nepal to the rest of the world we can see that their cash collection method is advance payment system i.e. they first collect cash by means of bank and then after they forwarded their product to the foreign party.

### 4.6.2. Liquidity Position

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

**(1) A large portion of Exporting body's Current Assets has been tied-up in the most illiquid Asset; i.e. Inventory:**

The cross examination of the liquidity position suggested that current assets have been tied-up in slow moving and unsaleable inventories. Analyses show that the average current ratio was found to be dissatisfying and calculated to be 1.14:1 (Nirvana) and 1.60:1(snow land), which are lower than the conventionally accepted current ratio of 2:1. The average quick ratio were found to be satisfying and calculated to be 0.5:1 and 1.05:1, which are approximate to the conventionally accepted quick ratio of 1:1. This indicated the possibility of current assets being moving and useable inventories.

**(2) Current Assets and Quick Assets are not being maintained in accordance with Current Liabilities:**

Current assets are not maintained in the accepted pattern of i.e. increase in current assets following increase in current liabilities and vice-versa. Likewise, neither the quick assets

has been maintained in the accepted pattern of i.e., increase in quick assets followed by increase in current liabilities and vice-versa.

**(3)Profitability of Export industries being in good trend, liquidity does not practically increase with increase in profitability and vice-versa:**

Average Net profit Margin Ratio i.e. average ratio of Net profit after tax to sales are found to be 4.99(Nirvana) and 5.23 (snow land); Average ratio of Net profit after tax to current assets are 12.02 and 7.66; and Average ratio of Net profit after tax to Quick assets are 40.26 and 15.03 respectively. These analyses indicate that profitability positions of exporting industries are in good position.

### 4.6.3. Cash Flow Statement

**(1) Operating activity of Export industries is moderately satisfactory:**

Overall, the operating activities of export industries have been observed to be moderate on account of the fact that there occurred cash inflows as well as outflows from such operating activities in FYs under study. However, there have been high fluctuations observed in such cash inflows and outflows, ranging from the highest outflows of (Rs 90.82) million in FY 2063/64 and the highest inflow of Rs 169.67 million in same fiscal year where as for the snow land carpet the highest outflow is 28.71 million in the FY 2063/64 and highest inflow is 28.45 in the FY 2059/60.

**(2) Investing activity of Export industries is very poor. Surplus cash and cash equivalent has not been invested in short- term investment opportunities**:

Investing activities of export industries have been observed to be the poorest of all three activities involved in cash flow statement. This activity has incurred cash outflows and inflows every year ranging from (Rs-4.48) million to (Rs 0.78) million in FYs 2059/60 and 2061/62 for the Nirvana carpet and this rang for snow land carpet is -2.36 million and 2.06 million in fiscal year 2061/62 and 2060/61.

**(3) Financing activity of export industries is passive, and thus poorest:**

In the course of observation there is no any financing activities found in both industries.

### 4.6.4. Cash Budgeting Practice

Overall, cash budgeting practice of export industries is average.

Carpet exporting industries allocates more than required cash budget for its current assets investment. In other words, the allocated budget exceeds actual expenses of the company

each fiscal year, which is indicative of excess cash balance being held idle incurring high cost. The ratios of 1.51 in FY 2059/60, 1.29 in FY 2060/61, 1.44 in FY 2061/62, 2.46 in FY 2062/63 and 2.51 in FY 2063/64 suggest that the company has been over cautious of cash deficit and as such has been holding more than enough cash balance. This is indicative of excess cash balance being held idle. Average ratio of 1.55 suggests that the company has not been following definite policy regarding allocation and expenses of cash budget.

## 4.6.5. Issues and Constraints

While analyzing the management of cash in the field of carpet export. Major issues and constraints have been noticed which are described as follows:

1. The quality of management itself is a scarce factor in carpet exporting enterprises. The performance of exporting enterprises exhibits that the management lacks basic knowledge of financial management.

2. 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 enterprises. The fluctuating trend of cash deficit reveals the fact clearly.

3. The lack of accurate and proper sales forecast is one of the important constraints that affect the financial performance of the company. If the company forecasts the expected sales accurately, it can manage the various activities accordingly.

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

# CHAPTER -V
# SUMMARY, CONCLUSION & RECOMMENDATIONS

## 5.1. Summary

Nirvana, Snow land and all the carpet industries are the growing concern of greater national importance in the field of export. It contributes significantly to the economic development of the country. However, carpet industries are found to be suffering from inefficient 'cash management'. So, the objectives of this study as; to examine and critically analyze the cash management practice of carpet export; to examine the liquidity position of exporter, to examine cash flow statement of exporter, to examine cash allocation /expenses budget practice of exporter and to recommend viable suggestions to cope up with cash management shortcomings in export enterprises. These objectives of this study are to have true insight into its 'cash management'.

Hence, an effort has been made in this chapter to present major findings of the study beginning with finding in 'overall cash management', then proceeding through 'liquidity position' and 'cash flow statement' and finally 'cash allocation/expenses budget practice'. There after, in the same pattern 'recommendations' have been stated. Likewise, 'conclusions' have been drawn at the end of the chapter.

For the purpose of conducting this study, mainly the secondary data were used. It constitutes mostly, the balance sheet and profit and loss account besides; the performance has also been supplemented from interview with the related persons who were involved in this field.

## 5.2  Conclusion

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

Conclusively, it can be stated that carpet export industry's cash management is very poor. Profitability of the company adds much to the worsening financial position of the industries. Besides, cash management being one of the important elements in financial function, there are other numerous aspects of finance involved in the overall financial performance of the company. In addition to this, the overall performance of the company counts for other managerial aspects such as; human resource management, organizational structure, markets management etc. However, above all disappointing point of the financial position is indicative of the fact that exporter should immediately seek for drastic change in its managerial structure. So far cash management is concerned; the recommendations suggested above could, to a greater extent, uplift exporter cash management situation.

In addition the present situation and the interest of government towards the exporting bodies are very poor. Although the exporting bodies are the main source of foreign currency government gives minimum priority.

## 5.3    Recommendations

Analysis, findings of the present study on carpet export field has required some suggestions to improve the application of 'cash management' system in carpet exporting industries for their better operation. The study has clearly shown that objectives of carpet exporting industries are not clear, planning is not systematic, there is a lack of business knowledge and more over due to lack of coordination between departments, and implementation aspect is poor as well. The study recommends following aspects to improve carpet exporter's planning and performance as;

### 1.    Responsibility should be clearly defined

Responsibility center should be clearly defined. Reward and punishment system for the performance of related responsibility center should be maintained. Exporter should develop the systematic periodic performance reports detailed by assigned responsibility center for the accomplishment of the establishment objectives.

### 2.    Familiar with Strengths and Weaknesses of the Enterprise

The industry should be well familiar with its strengths and weaknesses and it should not be indifferent about its competitors. Because of the liberalized economic policy of the

government. Many exporters are entering in the market and abruptly the exporter will have to manage it to face the competition. That's why the exporter should be aware of effective corporate planning system and strategic management. Hence, a systematic approach should be developed towards comprehensive cash management. This can considerable contribute to increase the profitability of the carpet exporter.

### 3.     Efficient Management of Cash

Carpet exporter should have proper cash planning to estimate the cash receipts and payments. It helps to minimize the problem of excess cash balance. Company should first identify the cash needs for operation. For this, industry should consider the various expenses it has to incur such as; purchase of commodities, payment to be made for wages, salaries and rent, power etc. In other words, it should forecast the cash needs for manufacturing expenses, administrative and selling overheads for certain period of time. After identifying the cash needs then the industry 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 company should then determine the minimum level of cash balance needed to the company. At the same time, the seasonal requirement should also be considered.

### 4.     To prepare Monthly Trial Balance

Preparation of at least monthly trial balances of financial statements can help remedy adverse financial situations in time. A year's time is quite lengthy and thus, it is likely that analyses of yearly financial statements couldn't properly monitor and remedy the financial situation in time. Moreover, cash management being management of cash and near cash assets within a period of one year's time, calls for preparation of monthly trial balances of cash flow statements and cash budgets. So, that every movement of cash and near cash assets could be monitored there by taking preventive measures.

### 5.     To Design the Effective Account Receivables Management

 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 receivables 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.

**6.      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 staffs and workers for effective credit and 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.

**7.      Activate Investing Activities.**

Cash flow statements have shown that investing activities are not functional. This fact together with the fact that carpet exporter has been holding excess cash and cash equivalent at the end of years necessitates immediate investments in short-term investments which would earn a return till the funds can be utilized in the firm.

**8.      Activate Financing Activities.**

Study of cash flow statement has also pointed that financing activities of carpet exporter is inactive, incurring either cash inflows or cash outflows. Financing activities has greater impact on the profitability of the company and consequently on liquidity. So, it is recommended to more activate its financing activities by issue of shares, long-term borrowings, paying interests and dividends wherever required etc.

**9.      Maintain Optimum Cash Balance Every Year**

The study has identified that carpet exporter hasn't been maintaining optimum cash balance. The balances held are at times too high and too low and without any definite purpose as to why the firm has held excess or deficit balance. For a good running company, holding of optimum cash balance as per its sales, profit and or other influencing variables is recommended. But in case of carpet export advance payment plays vital role.

**10.    Prepare Cash Budget on The Basis of Cash Flow Analysis**

From the analyses it has been identified that carpet exporter have been preparing cash budget without any definite planning. So, it is recommended to prepare cash budget based on cash flow analysis. The objective of preparing a cash budget is to forecast whether at any point of time there is likely to be an excess or shortage of cash. The following steps are considered for construction of a cash budget.

**Step 1**: To identify the sources of cash flows (receipt):

Normally the sources of a business are as follows:

i.      Advance payment.

ii.     Cash collection from debtors.

iii.    Cash sales of fixed assets.

iv.     Interest and dividend received.

v.      Bank loan.

vi.     Loan from financial institutions.

**Step 2**: To determine the cash outflow (payment).

Following are the list of payments for both industries:

i.      Cash purchase

ii.     Payment of the credit purchase.

iii.    Wages and salary payment.

iv.     Payment of manufacturing, administrative and selling expenses.

v.      Repayment of borrowed capital.

vi.     Payment for purchase of fixed assets.

vii.    Payment of other expenses.

**Step 3**: To find out the closing balance. The closing balance of cash can get by the following way:

Closing balance of Cash = opening balance of Cash+ Receipt of Cash – payment of Cash.

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

(a)    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.

(b)    Optimizing the level of cash balance by matching the cost of holding excess cash and the danger of cash deficiency.

(c)    Managing of cash flows so as to accelerate the inflows and as far as possible to decelerate outflows.

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