

CHAPTER-I

INTRODUCTION

1.1 Background of the study

Nepal is a developing country. The economic development of the country highly depends upon its economic condition and there is a need for additional capital investment for higher rate of economic growth. But the majority of the population is still engaged in agricultural sector. Agricultural development alone is not sufficient for the rapid economic development of the country. Domestic saving and foreign capital are two principal sources for capital investment. Among them, domestic saving is the most important and stable sources of capital.

It is obvious that economic development of different sectors needs capital investment like industries, trade so on. So, development of these sectors needs a regular supply of financial resources. In developing countries there is always shortage of the capital for the development activities. It is not possible to handle and development all the sectors by the government alone. Hence, Private sector is also important for economic development of the country. But Private sector can't undertake large business because per capita income of the people is very low while their propensity to consume is very high. Due to low income their saving is very low and capital formation is very low. Hence capital is that thing which is regarded as the main factor for the economic development of a nation. In Nepal, the capital markets are not properly developed. Generally, the sources of capital for industrial development in Nepal are individual financiers.

Establishing industries needs use of collecting scattered resources and mobilization of the capital. Industrialization is an important factor for achieving the basic objective of a country's economic and social process and uses idle capital of the country by increasing volume of production and productivity. It helps country to become economically strong. It facilitates an effective mobilization of resources of capital and skill, which might otherwise remain unutilized. It also acts as a vehicle for fostering innovation and technological improvement. Industrial development thus has a multiple effect on the economy.

So Industrialization is a key to achieve economic growth and prosperity within the country. Hence industrialization is universally accepted as a strategy of economic development as well as fundamental goals of most developing countries. In fact, industrialization in Nepal had started very late. Industrialization in Nepal had started only after the establishment of Council of Industry in 1936 AD. The first industry in Nepalese history is Biratnagar Jute Mill established in 1919 B.S. and Nepal Bank Limited in 1994 B.S.

A planned effort for industrialization in the country was made after launching economic planning in the country. Nepal launched her first economic plan in 1956 AD. Thus, the planned effort for industrialization was started since 1956 AD. There were 62 different industrial institutions came into existence. It was realized that to speed up the industrialization merely the establishment of the public enterprise is not enough. It is equally important that the role of private sector also play significant role since most of the public enterprises showed their lackluster performance.

The government changed its policy to create conducive environment to encourage the private sector and takes liberal policy after restoration of democracy in 1990 AD. After that many private and Joint Venture Companies came into existence.

The Nepalese economy at present is facing through the critical phase of low level equilibrium trap circumscribed by poverty and stagnation. The economy, moreover, is the manifestation of an acute disguised unemployment and subsistence farming with limited prospects for mechanization where foreign aid has continued to play a critical role over the years in sustaining the economy. It suffers from structural constraints that have not only marginalized the prospects for growth but also widened the gap between the rich and poor.

Introduction of Bottlers Nepal (Balaju) Ltd.

Bottlers Nepal Limited was establishment in August 1980 A.D. as a Bottlers Nepal Private Limited. After five years it was converted into public company as a Bottlers Nepal Limited. The amount is not invested by HMG. BNL is a Multinational Company. So, the Coca-Cola Sabco (Asia) Ltd, a company incorporated in Dubai, UAE held 98.8 percent share of Bottlers

Nepal Limited and only 1.2 percent share were distributed to common people. It established its branches in many countries like India, Singapore and Hong Kong etc. The company continues to receive support in the form of rebate on concentrate procured from the Coca-Cola Export Corporation. The

Company also received support from Coca-Cola Sabco (Asia) Limited, the parent company on sales, marketing and technical operations.

Bottlers Nepal (Balaju) Limited was established as a private limited company under the Company Act 1964 in 1973 AD. It was converted into public limited company in 1984 AD. The main objective of the company is to produce and market soft drinks under the brand name of Coke, Fanta, and Sprite in the country. The company has established a subsidiary company, Bottlers Nepal (Terai) Limited in Chitwan District. The company is managed by Singapore based F and N Cocacola Pvt. Ltd. Company.

The present estate of the capital of Bottlers Nepal (Balaju) Ltd is as follows:

Authorized Capital	Rs. 500,000,000	Paid-up Value Rs. 100
Incorporation year	B.S. 2041 A.D.1984	Listing Date B.S. 2043/1986 A.D.
Par Value / Share	Rs.100	

The concept of globalization is one of the major factors which brought in the concept of multinational company. The multinational company is establishing close relationship between each country in the world. Multinational company is being very importance to poor country like Nepal. It is supplies new technology and import huge amount of capital which is must necessary for developing country. Multinational company has been beginning at all country in the world at present situation. Many branches are established in many countries in the world.

The Bottlers Nepal (Balaju) Limited continues to maintain its leadership in the soft drink market because of its strong market infrastructure backed up by company's effective sales and promotional plans and consumers' preferences in company's products. The company has already started distributing the product through the Manual Distribution Center (MDC) directly through its wholly owned company Troika Traders (P) Ltd since 1 Jan. 2006. The result of this distribution through the MDCs is very productive. The company able to increase the market share and numeric distribution by serving the markets more effectively due to the implementation of the MDC distribution model.

The irregularities in the distribution had to be corrected through organize supply and delivery system. The company was not only able to maintain quality but also provide different kinds of service to the consumers.

The success of supply management of BNL led to the addition of supply of essential commodities such as Coca-Cola, Fanta, Sprite and processed edible to its distribution net-work. The profit received from trading activities were invested in the production of basic necessities to boost self sufficiency to accelerate economic growth, and gain public and private support. The following integrants of Coca-Cola can be available:

Nitration facts per 100 ml

Energy	-	42Kcl
Fat	-	0g
Carbohydrate	-	11]

Carbonated beverage

Ingredients: Carbonated water, sugar, Acidulate, Natural colour and Natural flavours. At present many branches offices in over all Nepal. Their main office is situating in Balaju, industrial area, Kathmandu. After its establishment, BNL has continuously distributed qualitative Coca-Cola with proper price to its people, customer and to its country as a whole very honestly.

Since in infancy, as a manufacture house BNL has matured in to diversified conglomerate distribution network all over the country. Its only one Branch Bottlers Nepal (Terai) Limited which is settled at Bharatpur, Chitawan District. The one hundred three dealers through out the country, provide the people easy access to locally produced good and act as a major procurement out led for goods supply in various parts of the country the employment opportunity that arise through the activities of the organization are hard to quantify as they also provide plenty of self-employment opportunities. BNL has helped to develop and boost the Nepalese entrepreneurial abilities. At present the Bottlers Nepal Limited directly employ about 500 individuals all over the company.

A corporation is importing the Sugar and concentrates from India and third country annually and is mixing in processing of product. Corporation has sold Coca Cola at the rate of Rs.400 per Case/Crate to dealers and at the rate of Rs.450 to wholesaler. Out of the total demand of Coca-Cola for 1 year, the

Coca-Cola sufficient for 3 month is kept as a buffer stock by company. Because of this reason, there is no lack of goods in all over the country although many goods create lankness from time to time. The Coca-Cola is the seasonable drinking goods therefore, its produce on warm in huge quantity.

The Bottlers Groups are as follows:

- i. Bottlers Nepal Limited, Balaju Industrial Area, Kathmandu.
- ii. Bottlers Nepal (Terai) Limited, a subsidiary company, Bharatpur Chitawan.
- iii. Troika Traders Pvt. Ltd, a wholly owned subsidiary company.
- iv. Coca-Cola Sabco (Asia) Ltd. Parent Company.

1.2 Statement of the Problem

Realizing after the eighth five year plan government change its policy to create conducive environment to encourage the private sector and takes liberation policy after restoration of democracy in 1990 AD. After that many private and Joint Venture Companies came into existence.

Business firms need to evaluate time to time their financial performance whether they are running healthy or ruin condition. Ratio analysis is one of the most common used techniques of financial performance analysis. It is a simple but meaningful technique of measuring operating performance and evaluating managerial performance of a firm. The ratio of analysis provides a basic to examine different accounting parameters, which reflect the norms of business operation.

Nepalese public enterprise never through of the source of current assets i.e. cash usually depends on Government of Nepal 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. Similar is the problem faced by BNL (Balaju) if we look on the financial statement of the corporation we can find that management is not satisfactory and encouraging, Very low level of cash in fluctuating trend are maintained in the corporation, which is one of the major problem in BNL.

Investors and market analyst often refer to financial ratios in order to keep track of their investment performance or some other reasons of their interest. The stockholders, managers, creditors, security analysts, competitors and other related business parties who have direct or indirect interest in the business regularly check financial result of the firm.

The operational and financial problems of a corporation can be ascertained by examining the behaviors of these ratios. Financial strength and weakness can be carried out with the help of financial ratios analysis. Management should be particularly interested and knowing financial strength of the firm to make their best-used and able to spot out the financial weakness of the firm to take suitable corrective actions.

In financial analysis, ratio analysis is considered to be more effective tool. It satisfies the interest of common stock holder, creditors, management of the firm.

All these factors proved that the ratio analysis is an important tool to find out the operational and financial problems of a company. This study attempts to evaluate the financial performance of Bottlers Nepal (Balaju) Ltd. Especially it deals with following issues.

1. Is financial performance satisfactory in terms of liquidity, solvency utilization and profitability?
2. Do financial ratios indicate any strengths and weakness of the company?
3. What kind of trend exists between sales and net profit?
4. Is the liquidity position of the company able to maintain appropriate level of position?
5. Is the relationship among influencing variable of cash management?

1.3 Objectives of the study

The basic objective of the study is to make financial analysis of Bottlers Nepal (Balaju) Ltd, for this purpose. The study was conducted following objectives.

1. To make asses overall financial performance of Bottlers Nepal (Balaju) Ltd.
2. To analyze the liquidity, long term solvency, assets utilization and profitability position of Bottlers Nepal (Balaju) Ltd.
3. To identify the trend projection of Bottlers Nepal (Balaju) Ltd. regarding the sales and net profit.
4. To evaluate the financial performance through the cash management of Bottlers Nepal (Balaju) Ltd.

1.4 Significance of the Study

This study has multidimensional significance in the particular area of the concerned companies the finding of which will be useful to researcher, shareholders, brokers, traders, financial institution, stock exchange public knowledge or general public, management of the company. The maintenance the

corporate liquidity therefore consists of determining the volume and timing of cash required by the firm. Liquidity and technical solvency are two different terms always confused and misused in financial performance. A company could be solvent and yet may not have enough cash to meet these current obligations. This is because the solvency of the company is known only after sale of its total assets. The technical solvency therefore does not mean that its current bills can be paid in cash on due date. Hence "liquidity" denotes the capability to meet its current obligation, where as "solvency" is the strength of the enterprise to meet its entire obligation including long-term loans. In conclusion financial performance of Bottlers Nepal (Balaju) Ltd. has not Maintain the liquidity position and cash management. In this connection, stockholders, policy maker and analysts need to know about the performance and financial position of successful manufacturing company.

1.5 Limitations of the Study

This study attempted to analysis the financial performance of Bottlers Nepal (Balaju) Ltd. The study is not free from certain limitation. The following are the major limitations.

1. This study was confined to Bottlers Nepal (Balaju) Ltd.
2. The study covered only five fiscal years covering data of 2006/07 to 2010/11.
3. The study was based on secondary data.
4. The study was made on financial performance analysis only.

1.7 Organization of the Study

The present study has been divided into five chapters as follows.

Chapter -I	Introduction
Chapter -II	Review of Literature
Chapter -III	Research Methodology
Chapter -IV	Presentation and Analysis of Data
Chapter -V	Summary, Conclusion and Recommendation

Chapter – I: This is the introduction chapter of the study. This chapter included background of the study, statement of problems, objectives of study, importance of the study and limitations of the study and organization of the study.

Chapter – II: This chapter is the review of literature it dealt with conceptual framework, review of past studies .

Chapter - III This chapter contained the research methodology. This chapter dealt with research design, sources of data, data collection techniques data processing and data analysis tools to carry out the objective of study.

Chapter - IV This chapter dealt with the analysis, interpretation and major findings of financial performance of Bottlers Nepal (Balaju) Ltd.

Chapter –V This is the last chapter. It contained summaries, conclusions and recommendations. It also offers several avenues for future research. The bibliography and exhibits were incorporated at the end of the study.

CHAPTER-II

REVIEW OF LITERATURE

2.1 Concept of Financial Statement

Financial statement systematically contains summarized information of a firm's financial affairs. Top management needs financial statements to show actual financial situation of the firm to owners, creditors and the general public. Balance sheet and Profit and Loss account are the traditional basic financial statements of business. These statements provide reliable financial information about economic resources and obligation of business firm.

The term financial statements used by itself without qualification usually refer three principal statements. The Balance sheet, the income statement and a statement of a change in equity, analyzing changes in the ownership accounts. Thus, it can be said that financial statements communicate information to the different parties. It is a source of financial information relating to a firm.

2.1.1 Importance of Financial Statement

The financial information reflected in the financial statements is very useful to a number of parties. It is most important as well as essential to the following ways

- The owners, who provide funds for the operation of the business, may be interested to know where their funds are being used.
- Creditors (supplies the goods and services on credit, bankers and other lender who lend money as different ways) may want to know the financial position of the concern before giving loans or granting credit. The financial statements help them of judge such position.
- Employees may be interested on the financial position of the concern they serve particularly when payment or bonus depends upon the size of earning.
- Financial statement is also important for the different level of management of the firm to lead the firm successfully.
- Financial information is also important to investor consumer and general public.
- “Central and local government may be interested in the financial statement because they reflect the earnings for a particular period for the purposes of taxation. It is also important to the government for making proper policy and program.” (Pandey,1987:196-201)

2.1.2 Limitations of Financial Statement

Although financial statement are much significant in providing required information of the operation and financial health of an enterprise they should not be considered the conclusive reports that provide ultimate picture of the status of the concern. These statements should further be processed and analyzed to draw, more lucid picture of the status of the concern which may be quite astoundingly different than conceived.

Actually the financial statements are mainly prepared to safeguard the interest of shareholders. So, these statements fail to meet the requirement of different parties that are interested in the financial conditions of the enterprises.

- Financial statement disclose only a monetary terms. The transactions are recorded in the books of accounts which can be measured in monetary terms.
- Financial statement are interim and not final reports. " Financial statements are essentially interim reports and therefore, can't be final because the actual gain or loss of a business can be determined only after it has put down its shutters,
- Financial statement may not be realistic because these are prepared by following certain basic concept give an idea the business will continue and assets ate to recorded at cost but the book value which the assets is showing may not be actually realizable. Similarly, by the following that principle of conservation the financial statement will not reflect the true position of the business firm. So, financial statements have lack of precision and definiteness.
- Financial statements are influenced by the personal judgment of the accountant. Accountant may select any method of depreciation, valuation of stock, amortization of financial statement, treatment of deferred revenue expenditure. Such judgment is based on integrity and competency of the accountant will definitely affect the preparation of financial statements.
- Financial statements are drawn after the actual happening of the events. They attempt to present a view of the past performance and have nothing to do with the accounting for the future. "Modern management is looking forward but the statements do not directly help in making future estimates and taking decisions for future, the true picture of a concern can be found out only after its liquidation but we cannot wait for its liquidation. So the financial statements should be treated as an important source of information as customarily treated all over the world. These limitations of financial statements have given rise to the necessity of further analysis and interpretation of

financial statements by using different tools and techniques of financial management.”
(*Pandey,1987:201-203*)

2.2 Financial Statement Analysis

Analysis of financial statement is performed to take managerial and financial decisions. Financial analysis means the process of extraction and studying information in financial statements for use in management decision making. For example, financial analysis typically involves the use of ratios, comparisons with prior periods and with budget and other such procedures.

“Analyzing financial statements is a process of evaluating relationship between component parts of financial statements to obtain better understandings of the firm's position and performance.” (*Metcalfe and Tatar, 1976; 57*).

“The first task of the financial analyst is to select the information relevant to the decision under consideration from the total information contained in the financial statement. The second step involved in financial analysis is to arrange the information in way to highlight significant relationships. The final step is interpretation and drawing of inferences and conclusions. In brief financial analysis is the process of selection, relation and evaluation” (*Meig,1978: 76*) so; financial analysis is the process of identifying the financial strengths and weakness of the firm by properly establishing relationships between the items of balance sheet and the profit and loss account. “Financial analysis can be under taken by management of the firm or by parties outside the form viz. owners, creditors, inventors and others” (*Fost,1978:96*). Shareholders are concerned principally with the present and expected future earnings and the stability of these earnings. So they focus their analysis on the profitability of the firm. They would be concerned with its financial condition as it affects the ability of firm to pay dividend and to avoid bankruptcy. Short-term creditors are interested primarily in the liquidity of the firm their claims are short-term and the ability to pay the claims is its liquidity.

Management is concerned with overall position of the firm i.e. liquidity, profitability, solvency growth, goodwill and so on. It should analyze all type of financial indicators, which may assist in internal control as well as external bargaining.

Thus financial strength, weakness and position are reflected by financial analysis is a relevant literature for this research. In financial statement analysis such as balance sheet, profit and loss accounts are mainly analyzed through different tool and techniques.

2.2.1 Income Statement

Income statement refers a summary of a firm's revenues and expenses over a specified period ending with net income or losses for the period. "Income statement is designed to report the point performance of business entity for specified period of time such year, quarter, as month business revenues and expenses results from the accomplishment of the form's operation". (*Clifton & Edwar,1974: 38*)

2.2.2 Statement of Retained Earning

The organization can earn profit from its operations. The earning not distributed to the owners i.e. equity shareholders in the form of dividend and retained in the firm in the form of reserve or profit and loss A/C is known as retained earning. Such retained earnings belong to the equity shareholders. So it should be remembered that these funds represents the investment of existing shareholders. It is an internal source of finance for investment proposal and become the additional capital of the company.

2.2.3 Cash flow statement

Cash flow statement is intended to show all the cash inflows and outflows of a firm during a year. It provides relevant information about the cash receipts and cash payment. Information about firm's cash flow is useful in assessing its liquidity, financial flexibility, profitability and risk. Cash flow information is widely used by investors, analyst, creditors, manager and others. It is an important tool which provides information to its users about the ability of the enterprise to generate cash and its utilization. The main objectives of the cash flow statement are

- To help the financial manager to explain the situation of cash flow.
- To make easy to prepare cash budget for the specific period for future reference.
- To help know the causes of changes in the cash position on two dates.
- To help for evaluation about the financial position of an organization.
- To help to know the cash position so that it can make plans and policies regarding decision making activities for short term and long term financing

(Source: Pandey, 2006:87).

2.2.4 Balance Sheet

Balance sheet refers a summary of a firm's financial position reporting its assets, liabilities and equity at a particular date. Balance sheet presents the position of company's assets, liabilities and stockholders'

equity at a particular date, the liabilities indicate the amount owned by the firm to its creditors. It is the document that reports the financial position of company at a specific point of time.

It is a financial statement, which contains different assets of capital expenditure incurred on it at a particular date and the various sources of fund acquired by the concern to finance these assets and are shown in the form of liabilities and capital. So it is a mirror of the financial position of a firm at the particular date.

2.2.5 Importance of Financial Statement Analysis

Financial statement analysis assists the management to take benefit of the strategic management technique by providing the management with the information regarding the strength and weakness of the enterprises so as to exploit the opportunities lying in environment and managers the threats posed by the environment.

"Whatever may be the forms financial plan but a good plan must be related to the strengths must be understand before they are to be used to proper advantage and the weakness must be identified to take suitable corrective actions". (*Weston and Brighan, 1972: 28*)

2.2.6 Tools of Financial Statement Analysis

Financial statement morally does not give perfect information about a business firm, so various types of tools are used to analyze financial statement. Tools of financial statement analysis are needed to show the relationship and change the various types of tools are used to analyze financial statement.

Tools of financial statement analysis are needed to show the relationship and change the various figures representing the results of operating various factors in a firm. Among the more widely used of these tools are comparative financial statement, common size financial statement, ratio analysis and trend analysis.

2.2.6.1 Comparative Financial Statement

"Comparative financial statement are statement of the financial position of a business so designed as to provide time prospective to the consideration of various elements of final position embodies in such statement." (*Meigs, 1978: 82*). Theoretically, any such statement can be long the family of comparative financial statement. However, it is the balance sheet and income statement (i.e. profit and loss account),

which along are prepared in a comparative form because they are most important statement of financial position.

I. Comparative Balance Sheet

Comparative balance sheet helps to find out the increase or decrease in various assets and liabilities between one period to another. "Comparative balance sheet is a tool of financial statement analysis in which the items of balance sheet of last two year are compared and the changes between dates are indicated in absolute amount as well as in percentage increased or decreased" (*Chaudhary, 1978: 115*). It shows not only the balance of the account different dates but also the extent of their increase or decrease between those data. Thus, it may be defined as the study of the defined of the same items, group of items and computed in two or more balance sheet of the same business enterprises on different dates and the study of defined of proportion computed form those figure on the different dates.

II. Comparative Income Statement

Comparative income statement shows the operating result for a number of accounting periods so that changes in absolute data from one period to another may state in term of money and percentage. It contents the same column as the comparative of increase or decrease" (*Myer, 1974:140*).

Comparative income statement is a tool of financial statement analysis in which the items of income statement of at least two years are compared and changes between dates ate indicated in absolute rupee and in percentage increase or decrease.

2.2.6.2 Ratio Analysis

"The relationship between two accounting figures expressed mathematically, is known as a financial ratio (or simply as a ratio). Ratio helps to summarize large quantities of financial data and to make qualitative judgment about the firm's financial performance" (*Pandey, 1999: 109*).

"Ratio analysis is widely used tools of financial analysis. it is defined as the systematic use of ratio to interpret the financial statements so that the strengths and weakness of a firm as well as it s historical performance and current financial condition can be determined" (*Khan & Jain, 1994:117*). Ratio analysis involves method of calculating and interpreting financial ratios to access the firm's formations the basic inputs to ratio analysis are the firm's income statement and balance sheet. Ratio analysis is a powerful tool of financial analysis. A ratio is defined as the indication quotient of two mathematically expressions

and as the relationship between two or more things. In financial analysis, a ratio is used as benchmark for evaluating the financial position and performance of a firm.

2.2.6.2.1 Types of Ratio

From the financial statement i.e. balance sheet and income statement, several ratios can be calculated. For the requirements of the various users of ratios, it may classify than into four important categories.

i) Liquidity Ratio

Liquidity ratio means ratios that measure the firm's ability to meet the short-term obligation and reflects the short term financial strength. In other words, liquidity ratio attempts to reflect the picture of the capacity of an enterprise to meet its short-term obligation out of its short-term resources "liquidity" refers to nearness to cash. The nearer an investment is to cash, the lower is its rate of return. "The large size of current assets is associate with liquidity and low profitability and vice versa: inadequate liquidity may lead a corporation to delay payments, sell assets or obtain temporary financing on unfavorable term" (*Pradha,1986: 57*). So, there is a need for proper balancing between investment in current assets and long-term investment/or profitability. The important ratios that measure the liquidity position and most widely accepted are current and quick ratios.

ii) The leverage/Capital Structure Ratio

"The leverage or capital structure ratios may be defined as financial ratios which throw light on the long term solvency or a form reflected in its ability to assure the long term creditors with regard to periodic payment o interest during the period of the loan and repayment of principal on maturity or in predetermined installments at due dates." (*Khan & Jain, 1994:120*) In other words the leverage ratios show how much of a found are financial by debt and equity and examine the prospects for future financing. For example, the highly geared enterprise faces difficulty in obtaining additional debt financing while the low gearness indicates the failure to use cheaper borrowed capital and to raise are subject to higher risks and this would inurn, increase chances of getting higher returns. "Conversely, the corporations with low leverage ratios are subject to lower risks and would in return decrease their returns. Thus the question of leverage is a question of achieving a proper balance between expected risks and return." (*Pradhan, 1986:73*)

iii) Activity ratio

Activity ratios measure how effectively the firm is managing its assets. Sometimes, these ratios are also called efficiency ratios or assets utilization ratios. The efficiency with which the assets are used would be reflected in the speed and rapidly with which assets are converted into sales. Greater the rate of turnover or conversion, the more efficient utilization/management.

Activity ratios, thus involve a relationship between sales and assets. A proper balance between sales and assets generally reflects that assets are managed well. A number of ratios are available for measuring the activity of the most important i.e. inventory turnover, debtor's turnover average collection, total assets turnover.

iv) Profitability Ratio

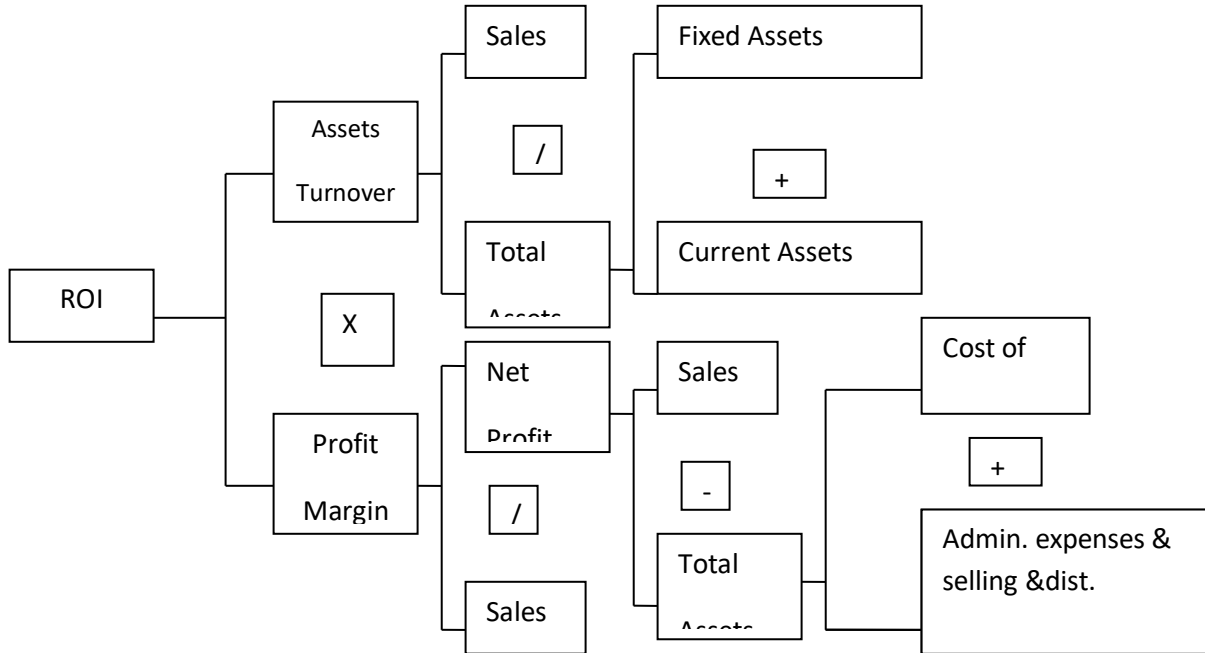
Profitability is a measure of efficiency and the search for it provides an incentive to achieve efficiency."Profitability also indicates public acceptance of the product and show the money for repaying the debt incurred to finance the project and resources for the internal financing of expansion: in order words, the profitability ratios are designed to provide answer to questions such as (i) is the profit earned by the firm adequate? (ii) What rate of return does it represent? (iii) What is the earning per share? (iv) What is the rate of return to equity holder?" (*Pradhan,984: 64*). So the profitability ratios provide useful clue to the effectiveness of a firm's operations.

v) Du Pont Analysis

Du Pont analysis reflects the relationships between return on investment (assets), assets turnover, the profit margin and leverage. In Du Pont chart show profit margin on sales, total cost, net income, total assets turnover, fixed cost, current assets etc.

Chart-1

Du-Pont Chart



(Source: Pandey, 1999:149)

From the above Du Pont chart -1 reflects the relationships between return on investment (assets), assets turnover, the profit margin and leverage. In Du Pont chart show profit margin on sales, total cost, net income, total assets turnover, fixed cost, current assets etc The nearer an investment is to cash, the lower is its rate of return. So, there is a need for proper balancing between investment in current assets and long-term investment/or profitability. Likewise, Activity ratios thus involve a relationship between sales and assets. A proper balance between sales and assets generally reflects that assets are managed well. A number of ratios are available for measuring the activity of the most important i.e. inventory turnover, debtor's turnover average collection, total assets turnover. The important ratios that measure the liquidity position and most widely accepted are current and quick ratios.

2.3.1 Review of Articles

J.K Pathak and O. Rajbhandari (1974 AD) has made first research work on *Economic and Management Study of Public Enterprise in Nepal* .The study covered a period of eight fiscal years between 1964/65

and 1971/72. The study was based on financial reports of the enterprises questionnaire and received from chief executives.

The study concluded that " Public corporations as source of augmenting internal resources required for speeding the rate of economic growth has not been achieved". Secondly, the assets management in general and current assets management in particular is the weakest point in Nepalese Public Enterprises. It has not received due and serious attention as yet.

- i) Financial performance of the enterprises is poor and indicate mismanagement of available various types of resource.
- ii) Financial reporting is very poor, this making all the more difficult for their management.
- iii) Because of the lack of operational objectives application of long-range planning use of modern management tools, capital budgeting and effort toward cost control has not been made so far.
- v) The performance of public enterprise not only depends on its operation but also on the personality or nature of managers. But the nature of the managers of public enterprises in Nepal is mostly poor and further more these managers' deputations of government have not been trained in this area.

Dr. Monohar Krishna Shrestha (1983 AD) has made a study on the "*Financing of PSE in Nepal*". His research reveals that

- i) Turnover of public enterprises is sometimes seriously hampered by not allowing public enterprises suffered from turnover due to lower price.
- ii) The fixed assets turnover is not much satisfactory as expected be achieved. In aggregate, the fixed assets turnover varies from 18% in the fiscal year 1971/72 to 50% in the fiscal year 1978/79.
- iii) Account receivable turnover of public enterprises is very high, collection period in aggregate records is taken at a period of nine months for all public enterprise.
- iv) There seems to be much fluctuation in inventory in turnover as it deviates from the lower of 1.09 to highest of 18.
- v) Most of the corporation have experienced lower turnover of working capital.

- vi) The net worth turnover shows two different results. Some public enterprises have lowest turnover but does not seem to be much deviated and some public enterprises faced serious variation in net worth turnover.

A study conducted by Radheshyam Pradhan (1984 AD) on financial ratios has focused on *"Behaviors of Financial Ratios in selected Public Corporation in Nepal."*

(1) The objective of this study was to compute analyze and interpret the financial ratios so as to determine their behaviors in Nepalese manufacturing and non-manufacturing groups of corporation and also in the sick and non-sick group of corporation. This study was based on secondary data. They were gathered for a period of twelve years from 1973 to 1984. The study has selected from the manufacturing sector and ten from non-manufacturing sectors. In this study altogether twenty-two financial ratios were calculated.

(2) The major conclusions of this study are as follows.

Liquidity Ratios

- Generally Manufacturing Corporation had higher liquidity ratios as compared to the non-manufacturing corporation.
- Over the period of time liquidity ratio has declined in both Manufacturing and Non-manufacturing Corporation.
- Liquidity ratios of the non-sick periods were higher than the ratios of the sick periods of corporations.

Turnover Ratios

- Generally the manufacturing corporations had a higher turnover in cash and receivables than the non-manufacturing corporation.
- On an average the turn over current assets, cash, receivable, inventories, fixed assets and total assets increased in manufacturing corporations over the period of time.
- The non-sick corporation has an average higher turnover asset, current assets, net working capital, cash, receivables and inventories than the sick corporations.

Profitability Ratios

Normally the manufacturing corporations had higher ratios of return on total assets profit margin on sales and return on net worth as compare to non Manufacturing Corporation.

Leverage Ratios

- The ratio of debt to total assets and total debt to net worth of Non Manufacturing Corporation were higher than the ratios of manufacturing corporations.
- The debt ratio appeared to have been increasing in the manufacturing as well in the non-manufacturing corporations. Expect for the ratio of total debt to net worth in the non-manufacturing corporation.
- The average ratio of total debt to total assets of Sick Corporation was higher than the non-manufacturing corporation.

Sanjaya Kumar Shrestha (1993 AD) conducted a research with the objective of assessing the "*Financial Performance of Dairy Development Corporation.*" He has used certain financial tools i.e. profitability analysis, ratio analysis, trend analysis, common size and comparative financial statement and fund flow analysis with a view to suggesting the strengths and weakness of various aspects of financial performance to evaluate financial health. The study covered seven fiscal year period (FY 2041/42 to 2047/48 B.S.). Some of the major findings of the research are:

- Sales have more than doubled during the study period expect during the accident period.
- Operating profit is always negative and profitability position are found to have been extremely dismal and widely fluctuating over the study period and had been incurring substation losses in most of years because of excessive coast of production.
- iii)Liquidity position of the corporation is found fluctuating adopting no particular trend. It is satisfactory from the liquidity point of view but relatively much investment in the less productivity working capital.
- DDC is highly leveraged firm. The total assets of DDC have been financed more by debts capital 60% and the ownership capital 40% in an average.
- The corporation doesn't utilize its' resources effectively i.e. the assets have not been efficiently managed and utilized to generate adequate sales and profits. However the inventory turnover ratio of DDC seems moderate.

- Foreign aid and long term loan have been the most significant constituents of the total capital fund and increased over the study period, while the corporation fund is more or less constant through out the study period.

Prof. Dr. Radheshyam Pradhan, (2003) made a collection of the selected published and unpublished research works in Nepalese finance in his books Mr. Pradhan studied "*Prediction of Financial Distress in Nepal: A Consensus Approach.*" This study provides behavioral evidence from 63 executives of Nepalese industries on the appropriateness of the choice of variables of prediction of financial distress. The study indicated the consensus on the short-term liquidity ratio as the important indicators of financial distress. The study also revealed that there is no significant difference between the choice of financial ratios by the private and public sector enterprise. This study was based on primary data generated through questionnaire. Nineteen enterprise in public sector and forty four enterprise in private sectors covered in this study represents the major enterprise in Nepal. The results suggest that there is a high degree of consensus among the respondents with respect to relative important of financial ratios for the predication of financial distress. Particularly, the results support statistical models that used short-term liquidity as important predictors of sickness.

The research entitled "*The Predictive Power of the Ratios of Nepalese Manufacturing PEs*" was undertaken by Kalpana Paudel (2005), in February 1991. It analyzed six fiscal years financial statement from 2039/40 to 2044/45 B.S. Paudel took four profit making, four loss incurring and two other types (total ten) mfg. public enterprises for the study. The study was based on secondary data with the view to analyze the liquidity turnover, leverage and profitability ratios of manufacturing PEs and to judge their predictive power, to identify the appropriate ratio, to predict the financial health and performance of manufacturing PEs.

Following are the major findings of the study.

- The average of liquidity ratios of profit making manufacturing PEs were found higher than loss incurring PEs but they had not predictive power as indicated by hypothesis testing.
- Turnover ratio of profit making manufacturing PEs was found higher than loss incurring ones. This was confirmed by the result of hypothesis testing suggesting that these ratios die possess predictive power.
- Likewise, the debt to net worth ratio, long term debt to total capitalization ratio and total debt to total asses' ratio of the profit making public enterprises were lower than those of the loss

incurring ones. However the hypothesis testing confined their predictive power except the debt to net worth ratio.

- At the end, the researcher has ranked the following six ratios in order of their strength of predictive power. Total debt to total assets (the lower the better) operating ratio (the lower the better) inventory turnover ratio (higher the better) total assets turnover ratio (the higher the better) and quick ratio (the lower the better).

So the study suggested every manufacturing public enterprise to calculate periodically the above mentioned six ratios of their own and check the figure of these ratios and if they were not justifiable, then try to improve the ratios by improving the financial performance in that regard.

2.3.2 Review of the Previous Thesis

Deependra Bahadur Singh (1991) conducted a study entitled of the "*Short-Term Financing Pattern of Nepalese Manufacturing Public Enterprises*" an unpublished Master Level thesis submitted to Nepal Commerce Campus Faculty of Management, TU. Mr. Singh analyzed profit and loss of ten years period with sample of 13 manufacturing PEs with the following objectives and major findings.

Objectives:

- To examine profitability records.
- To assess the strengths and weakness of various aspect of financial and operational structure.
- To evaluate the short term financial pattern of Nepalese manufacturing public enterprises.

Major findings:

- The Profitability positions, through not being negative and found to have been fluctuating over the years. This may predict that Nepalese manufacturing could incur losses in the years to come because of excessive cost of production, administrative and selling expenses.
- The liquidity position of Nepalese manufacturing found lower and the analysis of capital structure was found relatively low geared and company has not been able to take advantage of trading on equity policy that can maximize profitability to the lower.
- The manufacturing company and Nepalese enterprises does not seem to have efficiently utilized its resources as indicated by efficiency ratio.
- It was revealed in the study that except Hetauda Cement Factory (HCL), other manufacturing PEs had used long-term funds more on total financing. However, the

proportion of short-term financing, though less, is increasing year by year. The major sources of short term financing were account payable and the smaller enterprises were found to have used account payable more extensively than the larger ones.

Keisha Jung Baral (1994) conducted a study on "*Financial Analysis of Large Scale Manufacturing Industries of Western Region*" an unpublished Master Level thesis submitted to Nepal Commerce Campus Faculty of Management, TU. Mr. Baral analyzed the followings basic objective and major findings.

Objectives:

- To examine the financial analysis of large scale of manufacturing industries of western region.
- To assess the strengths and weakness of various aspect of financial and operational structure.
- To evaluate the short term financial pattern of Nepalese manufacturing public enterprises.
- To analysis the financial statement of those manufacturing major industrial units established in western regions with the help of different financial tools.

Major findings:

- The major source of funds of Lumbini Sugar Mills Ltd (LSML) is share capital. LSML has no long term debt financing. It has financed its fixed assets with equity capital and it has partly financed its current assets with current liabilities and partly with equity capital. The liquidity position the LSML is satisfactory and there is no consistency in the liquidity of LSML over the study period.
- G.B. Textile Mills (Pvt) Ltd. (G.B.TM) has defective sales management and its liquidity position is deteriorating because of the excess inventory and hiking of the sundry creditors and loans. Its profitability has been impaired by a number of factors. Among them high operating expenses, heavy debt and high financial cost are the major factors.
- It has been suffering form the loss four years and even it has not able to service its debts.
- The absolute amount of profit of Bhirkuti Paper Mills Ltd. (BPM) is increasing year by year in study period. It has increased its profit by reducing the operating expenses and increasing sales volume. The paid up capital has the first place in the liability side of balance sheer of BPM in total and fixed assets have the first role in assets of BPM and cash and inventory have the major places in the current assets section of the balance sheet.

- Fixed assets have taken the place of above 60% of the total assets of LSM and in current assets cash and bank balance have the dominant place. It is up to 86.48% of the total current assets. Thus LSM doesn't have proper cash budgeting. The percentage of equity of above 97% of total liabilities in all years of the study period. It has not used debt financing. It has maintained high liquidity position during the study period.
- vi)The major items of assets of BPC are investment and the important items of liabilities are paid up capital and advance received.
- The principal items of liabilities of GBTM are sundry creditors and loans. The amount of this item amounts to 80% of the total liabilities. Inventory has been maintained upto 93% of the total current assets. Thus the financial position of GBTM is deteriorating year by year because of the absence of the proper financial planning.
- viii)The major sources of funds of BPC is share capital and the major uses of the funds is in investment.
- The almost amount of the funds available of GBTM has been used for purchase of fixed assets and operating loss. It doesn't have proper evaluation of capital investment.

Major Lal Pradhan (2004 AD) made “Comparative Study on *Financial Performance of Hetauda Textile Ltd. and Shree Textile (Pvt) Ltd*” an unpublished master Level thesis submitted to Nepal Commerce Campus Faculty of Management, TU. by in 2004 with the view to make an overall comparison of the financial performance of Hetauda Textile and Shree Textile with help of composite score. The study period covers 5 years from 1999 AD to 2004 AD.

Objectives:

- To examine the financial analysis of Hetauda Textile Ltd. and Shree Textile (Pvt) Ltd.
- To assess the strengths and weakness of various aspect of financial and operational structure.
- To evaluate the short term financial pattern of Nepalese manufacturing public enterprises.
- To analysis the financial statement of those manufacturing major industrial units established in western regions with the help of different financial tools.

Major findings:

- Liquidity position: The liquidity position of Hetauda Textile was better than that of the Shree Textile because the Hetauda Textile had excessive current assets to meet current obligations.
- Assets Utilization: The assets utilization of the Shree Textile was better than the Hetauda textile because adequate investment of total assets and adequate sales.
- Solvency Ratio: The solvency ratio of the Hetauda Textile was better than the Shree Textile because the Hetauda Textile didn't use more debts. But unfortunately the Hetauda Textile was not able to pay small amount of interest or long term loan because of negative profitability except the year 2038.
- Profitability: The Shree textile showed a better financial performance in comparison to the Hetauda Textile.

Ujwal Raj Gautam (1998) made a study on "*A Financial Study of Manufacturing PEs in Nepal*" with reference to Janakpur Cigarette Factory Limited (JFCL) an unpublished master level thesis Faculty of management T.U. submitted to Central Department of Management, faculty of Management in September 1998. The Study covered seven fiscal years 1988/98-1995/96. This study was based on secondary data.

Objectives:

- To examine profitability records
- To assess the strengths and weakness of various aspect of financial and operational structure to evaluate the financial health of JFCL.

Major findings and recommendations:

- There is no proper planning and control mechanism to production and operation.
- The Profitability positions, through not being negative and found to have been fluctuating over the years. This may predict that JFCL could incur losses in the years to come because of excessive cost of production, administrative and selling expenses.
- The liquidity position of JCFL found lower and the analysis of capital structure was found relatively low geared and company has not been able to take advantage of trading on equity policy that can maximize profitability to the lower.
- The corporation does not seem to have efficiently utilized its resources as indicated by efficiency ratio.

Keshav R. Joshi (1998) on "*Financial Performance of Commercial Bank.*" an unpublished master level thesis submitted to Shanker Dev Campus, Faculty of Management T.U. He focused on financial performance by applying various analytical tools of financial analysis. It covered five years period from the fiscal year 1981/82 to 1986/87.

Objectives:

- To study the activities of commercial bank
- To analyze comparative financial performance and position of commercial bank operating in Nepal.

The major findings and Recommendations

- The commercial have operating in Nepal maintained a sound liquidity position, as current assets excesses the current liabilities bank met their short-term obligation.
- The debt equity ratio was very high. So, it could be said that there existed double about solvency.
- The commercial bank Nepal had followed conservative credit policy. They preferred security on loan and advances. The commercial bank had utilized about 2/3 percentages in earning purpose form their total assets. So it very low.
- Profitability is the main indicator of financial performance. The profit on total assets of commercial bank was very low. It was due to its use of mare financing by the outsides.

Resham Raj Pathak (2000) entitled "*A Comparative Study on Financial Performance between Nepal Grindlays Bank Limited (NGBL) and Himalayan Bank Ltd. (HBL)*" an unpublished master level thesis submitted to Shanker Dev Campus, Faculty of Management T.U.

Objectives :

- To examine comparative financial position of the two joint venture banks.
- To find the liquidity position of the two joint venture banks.

Major Findings and Recommendations:

- **Liquidity Position**

Short term solvency position of both banks was found below than normal standard thought the study period. In the fiscal year 1998/99, short-term solvency position seems better in NGBL than HBL. So, NGBL was seen relatively better than HBL although both banks liquidity position is not satisfactory.

- **Utilization of Assets**

Both the banks have been efficient in utilizing most part of their total assets in profit generating purpose but comparing both banks, NGBL has better performance than HBL for utilizing assets.

- **Profitability Position**

Both banks have been able to generate profits from deposits but the rate of profitability is not satisfied.

- **Capital Structure Position**

Both banks had been able to earn profit on shareholders equity but not satisfactory level. NGBL is more succeed to generate more return on its shareholders funds than HBL.

Binod Subedi (2000) conducted on "*Financial Performance Analysis of Magnesric Industry of Nepal*" Central Department of Management, faculty of Management T.U.

Objectives:

- To examine the financial position of Nepal Oriend Magnestic Pvt. Ltd.(NOMPL). It covered the study period of 6 year.

Major Findings and Recommendations:

- The liquidity position of NOMPL is low.
- The turnover ratio is very low. It is also in decreasing trend.
- The long term financial strength of NOMPL is not sound from creditors point of. It has been depending on borrowed capital.
- The net profit ratio of NOMPL is always negative trend. The firm can't be considered to cope with adverse economic condition and negative profit increase interest due.

Rajendra Sapkota (2004) conducted on "*Measuring the Effectiveness of Short term Financing. A case Study of 15 Nepalese Manufacturing Companies*" an unpublished master level thesis submitted to Shanker Dev Campus, Faculty of management T.U.

Objectives:

- To measure the effectiveness of short term financing.
- To analyze the financial policy and liquidity position of the Neplease manufacturing companies.

Major Findings:

- This study found that the Government lacks the definite industrial policy and
- There is no special sales forecasted plan.
- There is no special sales forecasted plan.
- There is lack of skilled manpower in the Nepalese Manufacturing Companies followed the mix finance pattern.
- Nepalese manufacturing company cannot improve the liquidity position
- The company could pay its obligation in time and increase its obligation and time
- Manufacturing Company is not ensure effective utilization of bank loan and speedy the cash collection period to increase the profit of the company.

Mr Raghu Shrestha (2007) has studied about "*An Evaluation working Capital Management of Bottlers Nepal Limited (BNL).* " an unpublished master level thesis submitted to Shanker Dev Campus, Faculty of management T.U.

Objectives:

- To evaluate the working capital management of Bottlers Nepal Limited (BNL).

- To find the liquidity position, and management of working capital needs and utilization of current assets in BNL.

Major Findings:

- The proportion of current assets to total assets was increasing year after year and the proportion of inventories did receivables and cash follow the highest respectively.
- The liquidity position of BNL was very high resulting low profitability and concluded that efficiency of working capital management in BNL was poor.
- Manager did not pay proper attention to increasing further investment.

Sitaram Giri (2009) conducted on "*Profitability in Manufacturing Public Enterprises of Nepal*"

Objectives:

- To evaluate the profitability in manufacturing public enterprises of Nepal
- To find the liquidity position, and management of working capital needs and utilization of current assets in the manufacturing public enterprises.

Major Findings:

- The financial performance of manufacturing PEs in Nepal is quite dismal.
- The Enterprises have not been able to achieve their basic objective of augmenting internal resources required for speeding up the rate of economic raises the question of their basic survival.
- These enterprises the possible causes of poor profitability, which should help in devising suitable remedial action. Otherwise the relationship between PEs and economic development in the contest of the objectives of creating PEs will turn out to be of no help.
- The government may also handover these enterprises to the private sector under its privatization policy. In fact, a couple of them have already been disposed off to the private sector.

Maheshwor Das (2012) conducted on "*A study of cash management in public manufacturing company (Bottlers Nepal Balaju Limited)*". An unpublished thesis, Central Department of Management, faculty of Management T.U.

Objective of the Study

The major objective of the study is to examine the management of cash in BNL. The specific objectives of this study are as follows:

- To study of the existing cash management system in BNL.
- To critically review the cash management technique practiced by BNL.

- To suggest appropriate cash management policy for the future

Major Findings:

- Cash management in the BNL is primarily based on the practices lacking in scientific approach. A more serious aspect of cash management has been the absence of any formalized system of cash planning and cash budgeting in BNL.
- Modern practices with respect to debt collection monitoring the payment behavior of customers and relevant banking arrangements in connection with collection of receivables have been virtually ignored in BNL.
- The average cash turnover time in a year is found 136 times which is in fluctuating trend over the study period.
- The average inventory conversion period into cash is found more than 4 months i.e. 128 days which is slow than cash turnover time.
- The average cash conversion period is faster than average receivable period which is not a good signal for the purpose of managing cash.
- Average cash conversion cycle takes 126 days i.e. little more than 4 months which is also normal signal for cash management or cash collection efficiency of company is very normal.
- Management has taken liberal credit policy to sales of goods. Hence the cash and bank balance of the study period is minimum of account receivable.

2.3 Research Gap

This study has provided a little but more knowledge for our research purpose. Similarly, reviewing various books, journals, thesis and other independent studies by different authors related to the topic, it could be concluded that all those works performed are related to the study of cash management. The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make study management of Manufacturing Company of Bottler's Nepal (Balaju) Ltd.. Thus, in the most Priority of the secondary data were used to study the financial performance of Bottler Nepal (Balaju) Ltd. An inventory policy , relationship between the cash balance and sales, relationship between sales and receivable, cash and bank balance to current assets, cash conversion cycle, Current ratio and liquidity position of manufacturing Company of Bottler's Nepal (Balaju) Ltd. are analyzed. And there exist positive relationship between cash and bank balance and sales, increase sales leads to increase account receivable and liquidity position of manufacturing Company of Bottler's Nepal (Balaju) Ltd.

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Research Design

This research study is a descriptive as well as an analytical. This study is an examination of financial performance of Bottlers Nepal (Balaju) Ltd. The study evaluated the liquidity position of financial management practices of Bottlers Nepal (Balaju) Ltd.

3.2 The Population and Sample

A number manufacturing and processing company was listed till the fiscal year 2010/11. Up to the end of this fiscal year out of all the listed manufacturing and processing companies 29. Companies had submitted their financial statement considered a whole (i.e population) and one company Bottlers Nepal (Balaju) Ltd. (here after BNBL) have been extracted as a part of whole (i.e sample). The Bottlers Nepal (Balaju) Ltd was selected as sample of this study. The sample used in this study is purposive in nature taking the basis of range of cold drink product.

3.3 Types and Sources of Data

The study was based on the secondary data relating to the financial performance. Financial statements of the concerned companies were used as the main sources of information. This research is descriptive as well as analytical. Necessary financial and statistical tools were applied. However ratio analysis was also used.

3.4 Data Gathering Instrument

The data required for the study was collected mostly from the financial statement published by Bottlers Nepal (Balaju) Ltd. The study did not use questionnaires because most of the required for the study was available in the financial statement.

3.5 Method of Data Analysis

For the purpose of analysis of available data the following methods were used.

- On the basis of available financial statement different table were prepared depending upon requirement.
- For ratio analysis the component of current assets, current liabilities, fixed assets, long term loan, intangible assets and total investment etc were sorted out and used.
- For this study some important ratios were computed so the following financial ratios are used for the study area as follows.

Ratio Analysis

Ratio analysis is a widely used tool of financial analysis. The ratio reveals the relationship in a more meaningful way so as to enable one to draw conclusion from it. As the case study of cash management involves ratio analysis for judging operational efficiency, the rate of return on total assets and capital employed and activity, efficiency ratio would be particularly meaningful for management and investing, although there is no hard and fast rule.

a. Analysis of Cash Turnover:

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

$$\text{Cash turnover} = \frac{\text{Sales}}{\text{Cash in hand/bank}}$$

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

b. Account Receivable Turnover:

This ratio is computed by dividing sales by account receivables.

Thus,

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

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

c. Collection of Account Receivable:

$$\text{Collection of account receivable} = \frac{\text{Receivables}}{\text{Sales}} \times 100$$

d. AR to Cash/Bank Balance:

$$\text{AR to Cash/Bank balance} = \frac{\text{Cash/Bank balance}}{\text{Account Receivables}}$$

e. Analysis Cash to Current Liabilities:

$$\text{Cash to current liabilities} = \frac{\text{Cash/Bank balance}}{\text{Current liabilities}}$$

ii. Average Collection Period (ACP):

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

a) $\text{Average collection period} = \frac{\text{Days in a years (360)}}{\text{Receivable turnover}}$

b) $\text{Average days of five years} = \frac{\text{Total days of five years}}{\text{Five years}}$

Long-term Solvency Ratio

- Total Debt to Net worth
- Net worth to total assets
- Fixed assets to net worth

Utilization Ratio

- Inventory Turnover
- Debtors Turnover
- Total Assets Turnover
- Fixed Assets Turnover
- Current Assets Turnover

Profitability Ratio

- Gross Profit margin

- Net Profit Margin
- Return of equity
- Return of Total Assets
- Earning Per Share
- Dividend Per Share
- Dividend Per Share

The following statistical tools are selected for the comparative financial study of BNBL and BNTL.

Statistical Analysis

Straight line trend, correlation and regression:

- Straight line trend $(Y_c) = a + bx$
- Correlation (r):

Arithmetic Mean: Arithmetic mean is the average return over periods.. It is calculated by,

$$\bar{X} = \frac{X_1 + X_2 + X_3 + \dots + X_n}{n}$$

$$\text{Or, } \bar{X} = \frac{\sum X}{n}$$

Where,

\bar{X} = Arithmetic mean return

$X_1, X_2, X_3 \dots X_n$ = Set of observations

n = total no. of observations

$\sum X$ = Sum of given observation

Standard Deviation (S.D.)

The measurement of the scatterness of the mass of figures in a series about an average is known as dispersion. S.D. is an absolute measurement of dispersion in which the drawbacks present in other measures of dispersion are removed. The high amount of dispersion reflects high standard deviation.

The small standard deviation means the high degree of homogeneity of the observations. In simple term high SD means very less similarity in the values and low SD means high similarity among the values. SD gives the accurate result between

$$\text{S.D.} \sqrt{\frac{\sum (X - \bar{X})^2}{n}}$$

Where,

X = number of observations in the sample

\bar{X} = mean of number of observations in the sample

n = number of years

$\sum (X - \bar{X})^2$ = Sum of Total number of observations deviation from mean in the sample.

Karl Pearson's Coefficient Correlation Analysis

Out of several mathematical method of measuring correlation the Karl Pearson popularity known as Pearson's coefficient of correlation widely used in practice to measure the degree of relationship between two variables. Two variables are said to have correlation when the value of one variable is accompanied by the change in the value of the other. Therefore, it is measured by following formula using two variables. It is denoted by small 'r'.

$$\text{Correlation of coefficient } r = \frac{n \sum XY - \sum X \times \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \cdot \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

r = coefficient of correlation

$\sum XY$ = Sum of product of two series.

$\sum X^2$ = Sum of squared in X series

$\sum Y^2$ = Sum of squared in Y series

The value of this coefficient can never be more than + 1 or less than -1. Thus, + 1 and -1 are the limit of this coefficient. The r = + 1 implies that correlation between variables is positive and vice-versa. And zero denoted no correlation.

- **The Coefficient of Variation**

For comparing the variability of two distributions we compute the co-efficient of variation. A distribution with smaller CV is said to be more homogeneous or uniform or less variable than the other and the series with greater CV is said to be more heterogeneous or more variables than other (*Gupta; 1995: 25*). The co-efficient of variation is a relative measure that is useful in comparing the amount of variation is relative measure that is useful in comparing the amount of variation in data group with different means (*Richard and David; 1997:77*).

Mathematically,

$$CV = \frac{SD}{\bar{X}} \times 100$$

- **Probable Error**

The probable error of the coefficient of correlations helps in interpreting the value and measuring the reliability of the coefficient of correlation. Probable error of correlation coefficient usually denoted by P.E. (r) and old measure of testing the reliability of an observed value of correlation coefficient. In so far as it depends upon three conditions of random sampling. It is worked out as

$$P.E.R. = 0.6745 \frac{(1 - r)^2}{\sqrt{n}}$$

If 'r' is less than its PE, it is not all significant. If 'r' is more as PE there is correlation. If 'r' is more than 6 times it's PE and greater than is ± 0.5 , than it is considered significant.

- **Trend Analysis**

Trend analysis enables to compare two or more companies over different period of time and draw important conclusion about them. With the help of trend analysis, analyst knows the direction of moment. Trend analysis is very important because it may point to basic changes of the objectives in long-term.

$$\text{Straight line trend } (Y_c) = a + bx$$

Regression line of sales (x) on cash balance Y

"Regression is the determination of statistical relationship between two or more variables. One is independent variable that affects the behavior of dependent variable. Regression can only be

interpreted of what exists physically i.e. there must be physical way in which independent variable x can effect dependent variable (Y)" (Kothari ;199:46).

For the analysis of cash management of BNL simple regression analysis is applied to locate the relationship between sales on cash balance. The computation of regression line of sales (x) on cash balance (Y) is as follows:

$$(x - \bar{x}) = r \frac{\sigma_x}{\sigma_y} (y - \bar{y})$$

The regression line of cash balance (Y) on actual

$$\text{Sales (X)} = (Y - \bar{Y}) = r \frac{\sigma_y}{\sigma_x} (X - \bar{X})$$

Coefficient of Determination

Square of correlation coefficient is called coefficient of determination, i.e. r^2 . It represents the proportion of variation of dependent variable that is explained by the independent variables.

Methods of Presentation

The techniques of presentation used herein are most of descriptive and analytical nature and the data have been presented basically in tabular form thereafter some of important tabulated information of the data has been graphically represented.

Diagram and Graphical Representation

Diagram and graphs are visual aids that give a bird eye view of a given set of numerical data .They represent the data in simple and reality comprehensive form. Hence, the various bars, charts and graphs are used to present the data and data analysis in this study.

CHAPTER– IV

DATA PRESENTATION AND ANALYSIS

4.1 Financial Analysis

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

4.1.1 Analysis of Cash Balance

Table 4.1
Analysis of Cash Balance

Fiscal year	Cash and Bank balance (Rs)	Increase (Decrease) %
2006/07	13,755,000	-
2007/08	1,917,000	-86.06
2008/09	35,926,000	1774.07
2009/10	3,464,000	-90.36
2010/11	28,780,479	730.84
Average	16,768,496	465.698

Source: Annual report of BNL for the relevant year

The cash holding of the company shows fluctuating trend. It increased by 157.83 percent in the FY 2006/07 and in the FY 2007/08, it decreased by 86.06 percent as compared to the cash balance of 2006/07. But again it increased chances occurred in the FY 2008/09 by 1774.07 percent. In fact this visualizes that the company could not make the best use of these available cash balance. There is declined in cash balance by 90.36 percent in the FY 2009/10. Cash balance increased by 730.84 percent in the FY 2010/11. On the whole these figures show that there is no definite policy of cash management. While in some years it has excessive cash balance, while in others years it has very low. Moreover the company has not made cash inflow and outflow forecasts. It is crucial for the company to keep careful watch over the cash movements to investigate the opportunity for the use of cash. Cash is both the beginning and end of the working capital cycle Cash, Inventories, receivables and cash. The broader view of cash

also includes near cash assets, such as, marketable securities and time deposits in bank Cash declined in the FY 2007/08 and 2009/10 due to ineffectiveness of credit and collection activities.

4.1.2 Analysis of Cash Turnover

Table 4.2
Analysis of Cash Turnover

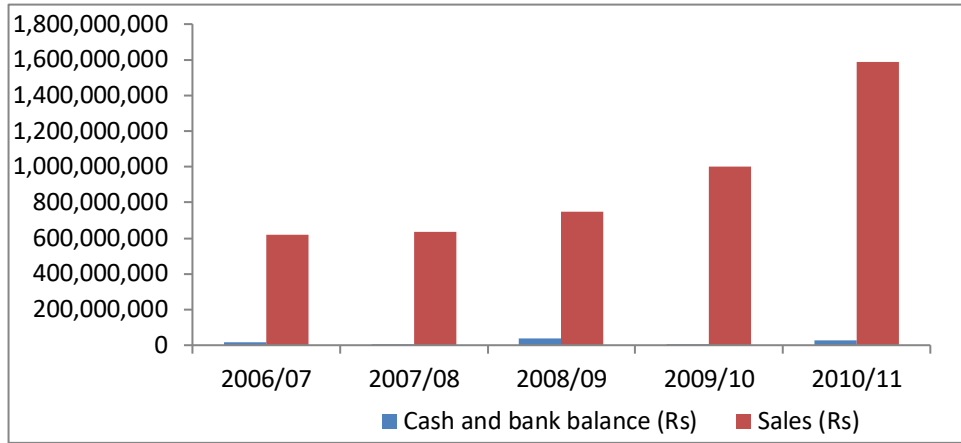
Fiscal year	Cash and bank balance (Rs)	Sales (Rs)	Cash Turnover (Time)
2006/07	13,755,000	621,827,381	45.21
2007/08	1,917,000	634,189,582	330.82
2008/09	35,926,000	746,581,607	20.78
2009/10	3,464,000	1,002,720,181	289.47
2010/11	28,780,479	1,588,149,524	55.18
Average	16,768,496	918,693,655	148.292

Source: Annual Report of BNL for the Relevant Year

Cash turnover ratio represents how quickly the cash is received from its sale. Higher turnover is the signal of good liquidity and vice versa. The above table shows that the highest cash turnover is 330.82 times in the FY 2007/08 when average being 142.62. In the year 2009/10, the cash turnover time is more than that of the averages. This shows that in the fiscal year 2009/10 it is 289.47 times which averages are above from the average. This table shows that a cash turnover time in a company is not in homogeneity i.e. there is fluctuating trend. Some time it takes more time where as some time it takes very less time than that of average. Which indicates that in the fiscal years 2006/07 and 2010/11 the company unable to collect cash from its credit sale timely. From the calculation it is observed that the collection efficiency in BNL is not good. Cash turnover ratio is decreasing in FYs 2006/07, 2008/09 and 2010/11 since the sales and cash bank balance is fluctuating. This is because 70 percent sales are in credit and remaining are cash sales. Moreover, cash conversion cycle is not timely manner in credit sales.

Figure 4.1

Graphical Presentation of Cash and Bank Balance and Sales



The above bar diagram shows that the graphical presentation of the relation of cash and bank balance and sales. The graph shows that the sales are maximum in the fiscal year 2007/08 and minimum in the year 2008/09. The figure also shows that cash and bank balance is minimum in the year 2007/08 and maximum in the year 2008/09. In the figure it is seen that the cash and Bank balance comparison with sales is very minimum.

4.1.3 Analysis of Cash Conversion Cycle

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

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

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

i. Inventory Conversion period:

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

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

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

Table 4.3

Analysis of Inventory Conversion Period

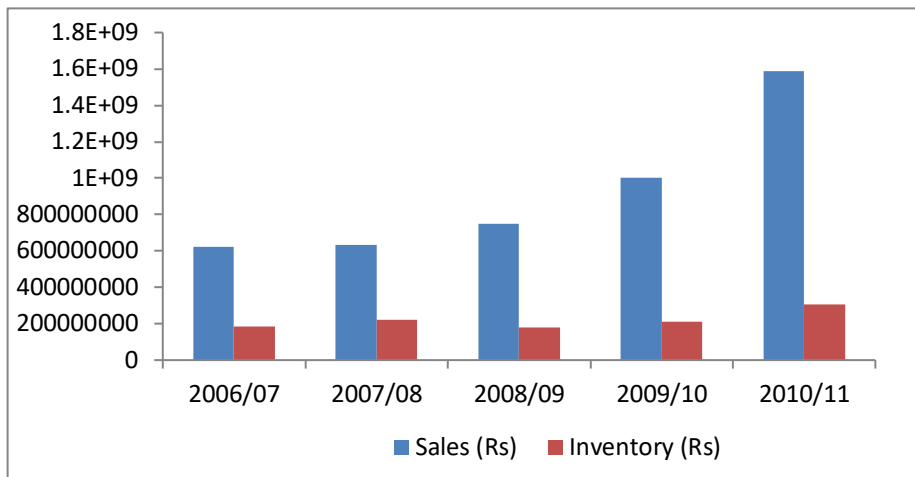
Fiscal Year	Days in a year	Sales (Rs)	Inventory (Rs)	Inventory turnover time	I.C.P. (days)
2006/07	360	62,18,27,381	18,49,80,000	3.36	107.09
2007/08	360	63,41,89,582	22,40,70,000	2.83	127.19
2008/09	360	74,65,81,607	17,69,36,000	4.21	85.31
2009/10	360	1,00,27,20,181	20,87,77,449	4.8	74.95
2010/11	360	1,58,81,49,524	30,41,20,602	5.22	68.93
Average					92.694

Source: Annual Report of BNL for the Relevant Year

The calculation of inventory conversion period of BNL in the above table has shown fluctuating trend in the study period. Varies from maximum of 127.19 =127days in the fiscal year 2007/08 to minimum of 68.93 = 68days in the fiscal year 2010/11. The maximum period refers the slow inventory turnover and minimum period prefers the fast inventory turnover. The average ICP is found 88.09 = 88days which is more than that of year 2010/11 and 2009/10 2008/09 and less than in the year 2007/08 and 2006/07 inventory conversion period.

Figure 4.2

Graphical Presentation of Sales and Inventory



The above bar diagram shows that the relation between sales and inventory. In the figure shows that, the relation of inventory with comparing to sales except in fiscal year 2010/11 is slightly increasing trend. The sales are maximum in the year 2010/11 and minimum in the year 2006/07 and inventory high in the year 2010/11 and in the year 2008/09 is very low.

ii. Analysis of Receivable Conversion Period:

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

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

$$\text{RCP} = \frac{\text{Days in a year}}{\text{Receivable turnover}}$$

Table 4.4

Analysis of Receivable Conversion Period

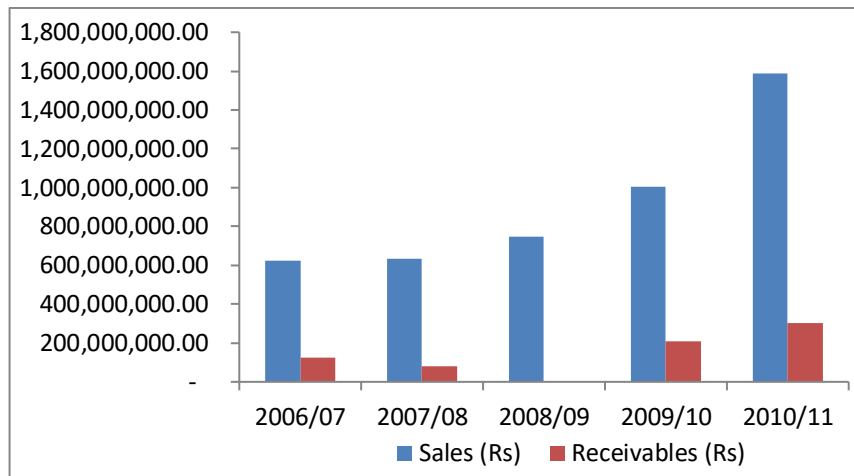
Fiscal Year	Days in a year	Sales (Rs)	Receivables (Rs)	Receivable turnover times	RCP days
2006/07	360	62,18,27,381	12,41,78,000	5	72
2007/08	360	63,41,89,582	8,08,45,000	7.84	45.91
2008/09	360	74,65,81,607	6,36,57,000	11.73	30.69
2009/10	360	1,00,27,20,181	20,87,77,459	4.8	75
2010/11	360	1,58,81,49,524	30,41,20,602	5.22	68.96
Average					58.512

Source: Annual Report of BNL for the Relevant Year

The calculation of receivable conversion period of BNL in the above table has shown fluctuating trend in the study Period. It varies from the minimum 30.69=30 days in the year 2008/09 to maximum 75.00=75 days in the year 2009/10. The average receivable conversion period of NBL is 57.42 =57days. Low collection period indicates fast conversion of receivable and long collection period indicates slow conversion period. Here in the year 2008/09 and 2007/08 collection period is less than average and in the year 2010/11, 2009/10 and 2006/07 collection period is higher than average collection period.

Figure 4.3

Graphical Presentations of Sales and Receivable



In the above figure it is seen the receivables are in fluctuate trend. Sales are minimum in the year 2008/09 Receivable with compare to sales are very minimum which is positive signal for the company.

iii. Analysis of Payable Conversion Period

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

$$\text{PDF} = \frac{\text{Creditors} \times \text{Days in a year}}{\text{Purchases}}$$

Table 4.5
Analysis of Payable Conversion Period

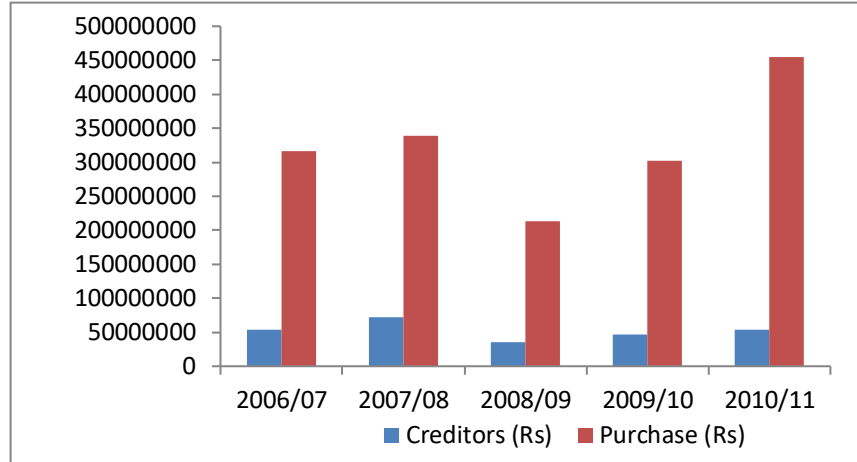
Fiscal year	Creditors (Rs)	Purchase (Rs)	Days in a year	PDP (days)
2006/07	5,42,96,000	31,64,96,000	360	61.76
2007/08	7,23,33,000	33,93,15,000	360	44.91
2008/09	3,53,36,000	21,28,80,000	360	59.76
2009/10	4,63,02,000	30,15,78,000	360	55.28
2010/11	5,31,25,686	45,51,34,000	360	42.02
Average				52.746

Source: Annual Report of BNL for the relevant year

The calculation of payable deferral period of BNL in the above table indicates fluctuating trend in the study period. In the study period PDP varies from maximum of 61.76 days in the year 2006/07 and minimum of 44.91 days in the year 2007/08. The average payable period of 57.178 = 57days has taken by company for the payment of trade creditors.

Figure 4.4

Graphical Representations of Purchase and Creditors



The figure shows that the graphical presentation between purchase and creditors. In the figure it is seen that the purchase is minimum in the year 2008/09 and maximum in the year 2010/11. The relation of the creditors in comparison to purchase is homogeneous in preceding four years and in final years it is in increasing trend.

iv. Calculation of Cash Conversion Cycle (CCC)

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

$$CCC = ICP + RCP - PDP$$

Table 4.6

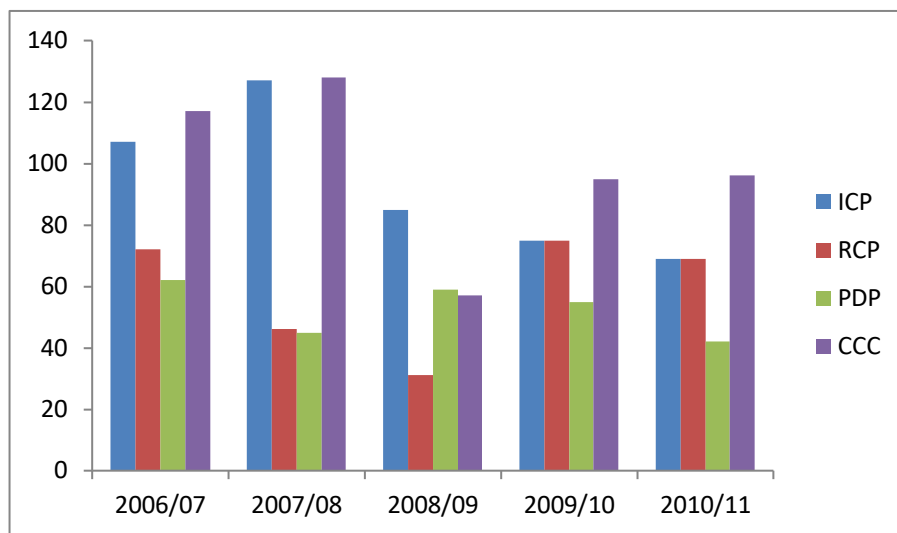
Analysis of Cash Conversion Cycle (Days)

Fiscal year	ICP	RCP	PDP	CCC
2006/07	107	72	62	117
2007/08	127	46	45	128
2008/09	85	31	59	57
2009/10	75	75	55	95
2010/11	69	69	42	96
Average				98.6

Source: Audited Balance Sheet of BNL for the Relevant Year

The above table shows the cash conversion cycle CCC of BNL for the study period of five years from the fiscal year 2006/07 to 2010/11. Above table shows fluctuating trend in the company during the study period. The average cash conversion cycle of BNL is 103 days which seem to be not satisfactory but company's credibility is good. Firm could not get the credit due to the company delay in paying its obligation. BNL has maximum of 128 days in the year 2007/08 and minimum of 57 days in the year 2008/09.

Figure 4.5
Graphical Presentation of RCP, PDP and CCC



The above figure shows that the graphical representation among ICP, RCP, PDP and CCC. In the above multiple bar diagram it is seen that ICP are in decreasing trend except in the year 2007/08 over study period, PDP is decreasing RCP and CCC is fluctuating trend.

4.1.4 Analysis of Account Receivable of BNL

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

Table 4.7

Analysis of Account Receivable Turnover of BNL

Fiscal Year	Receivable (Rs)	Sales (Rs)	Ratio in (Time)	Total Collection (%)
2006/07	12,41,78,000	62,18,27,381	5.00	80.04
2007/08	8,08,45,000	63,41,89,582	7.84	87.25
2008/09	6,36,57,000	74,65,81,607	11.73	91.48
2009/10	20,87,77,459	1,00,27,20,181	4.80	79.7
2010/11	30,41,20,602	1,58,81,49,524	5.22	80.85

Source: Audited Balance Sheet of BNL for the Relevant Year

From the above table, a receivable turnover time on the year 2008/09 is 11.73, which is very high in the study period whereas in the other previous study years it seems to be homogeneity. The table also shows that the company account receivable is 9 to 21% that is very positive signal for the company because collection of sales over than 79.7 (about 80) percent in relevant year is a satisfactory situation for the company.

4.1.5 Analysis of Account Receivable to Cash and Bank Balance

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

Table 4.8

Analysis of Account Receivable to Cash and Bank Balance

Fiscal year	AR (Rs.)	Cash and bank balance (Rs.)	% of AR
2006/07	12,41,78,000	1,37,55,000	11.08
2007/08	8,08,45,000	19,17,000	2.37
2008/09	6,36,57,000	3,59,26,000	56.44
2009/10	20,87,77,459	34,64,000	6.56
2010/11	30,41,20,602	2,87,80,479	1.65
Average			15.62

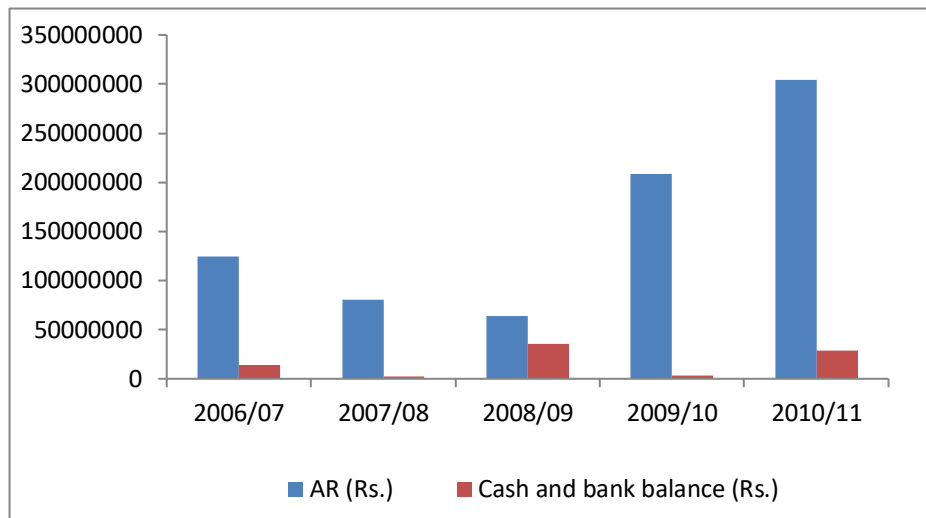
Source: Audited Balance Sheet of BNL for the Relevant Year

The analysis of the above table shows the analysis of account receivable to cash and bank balance in the study period. It clearly shows that in the study period is in fluctuating trend i. e. 11.08 percent, 2.37 percent, 56.44 percent , 6.56 and 1.65 percent respectively for year 2006/07, 2007/08, 2008/09,2009/10 and 2010/11 respectively. During the study period cash and bank balance is not homogeneity i.e. from 1.65%and 56.44 percent the amount of cash and bank balance with respect to account receivable is minimum which shows that the management is less concerned to speed of the collections of account receivables. By this situation company is suffered the deficit of cash balance to meet its current liabilities and also shows that management has taken semi liberal credit policy of sales of goods.

Evaluating this situation, cash and bank balance is neither so good nor so bad i.e. moderately satisfactory because the minimum percentage of the AR on cash and bank balance is not satisfactory. Thus, it can be said that higher the account receivable caused lower cash balance and vice versa. Hence, management should not adopt strength policy to increase cash balance to maintain at a desired level of cash balance.

Figure 4.6

Graphical Presentations of Account Receivable and Cash and Bank balance



The above bar diagram shows that the relation of account receivable with cash and bank balance. In the figure it is seen that the account receivable with cash and bank balance. In the figure it is seen that the account receivable and cash and bank balances are in fluctuating trend. It is

maximum in the year 2008/09 and minimum in the year 2010/11 by analyzing percentage of A/R.

4.1.6 Analysis of Cash and Bank Balance to Current Assets

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

Table 4.9
Analysis of Cash and Bank Balance to Current Assets

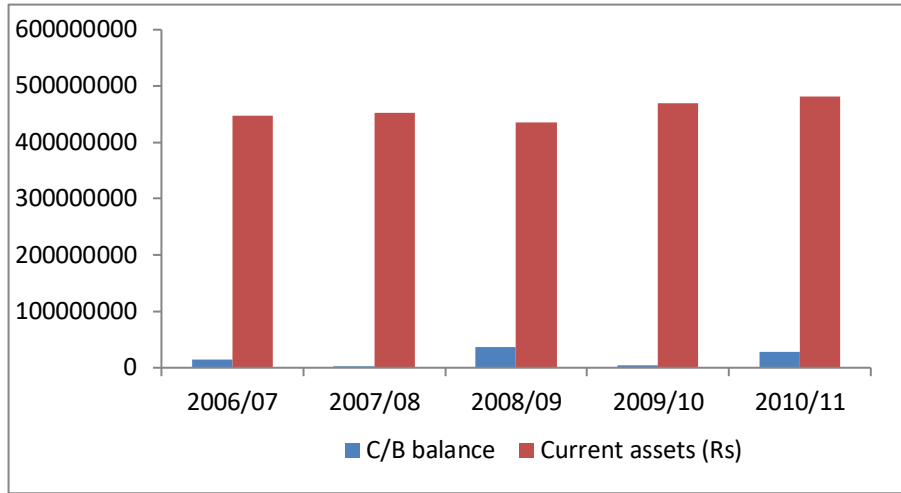
Fiscal year	C/B balance	Current assets (Rs)	% of C/B on CA
2006/07	1,37,55,000	44,78,31,000	3.07
2007/08	19,17,000	45,32,11,000	0.42
2008/09	3,59,26,000	43,60,45,000	8.24
2009/10	34,64,000	46,97,01,000	0.74
2010/11	2,87,80,479	48,14,39,400	5.97
Average			3.688

Source: Audited Balance Sheet of BNL for the Relevant Year

Above table 4.9 shows the percentage of cash and Bank balance to current assets of the company. Above table indicates that the cash and bank balance with respect to current assets has been fluctuating trend. During the study period it is the lowest 0.42 percent for the year 2007/08 and the highest 8.24 percent in the year 2008/09. On an average the projection of cash and bank balance to current assets for the study period 3.24 percent while comparing with the average it is found that the percentage of cash and bank balance to current assets for the year except 2007/08, 2009/10 and 2006/07 are lower. Thus it can be said that the cash position of BNL is not good.

Figure 4.7

Graphical Presentations of Cash Balance and Current Assets



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

4.1.7. Analysis of Cash and Bank Balance to Total Assets

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

Table 4.10

Analysis of Cash and Bank Balance to Total Assets

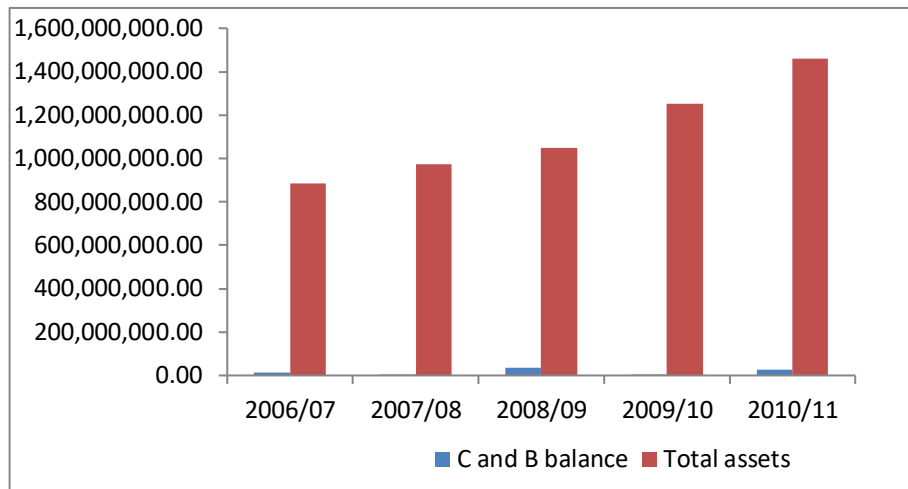
Fiscal year	C and B balance	Total assets	% of C and B balance on T.A.
2006/07	1,37,55,000	88,65,55,000	1.55
2007/08	19,17,000	97,52,66,000	0.2
2008/09	3,59,26,000	1,04,83,53,000	3.43
2009/10	34,64,000	1,25,20,66,000	0.77
2010/11	2,87,80,479	1,45,98,15,300	1.97
Average			1.584

Source: Annual Report of BNL for the Relevant Year

The above table shows the percentage of cash and bank balance to total assets of BNL the ratio represents the proposition of cash and bank balance to total assets investments of BNL of study period. Above BNL, the percentage of cash and bank balance to total assets in the fluctuating trend. The ratio varies from minimum 0.20 percent to maximum 3.43 percent in the year 2007/08 and 2008/09 respectively. It has average ratio of 1.40 percent which seems very low for the company BNL. On the average 1.40 percent during the study period which is greater that in the year i.e. 2006/07, 2008/09 and 2010/11. Among the components of current assets cash and bank balance hold the minimum proportion. Cash is required for day to business operation. Cash shortage for the firm means, firm is not able to invest in golden opportunities. From the personal construct with the divisional manager, it is known that it is due to improper management of cash of the company.

Figure 4.8

Graphical Presentation of Cash and Bank Balance and Total Assets



Above bar diagram shows that, the relation between cash and bank balance and total assets. In the figure it is seen that the total assets are in increasing trend over the study but cash and bank balances are in fluctuating trend. The figure clearly shows that the proportion of cash and bank balance with comparing to its total assets are very low.

4.1.8 Analysis of Cash and Bank Balance to Current Liabilities

Among the techniques of measuring company's liquidity the ratio of cash to current liabilities may also be used as index of cash management. This ratio indicates the amounts of cash (in

percentage) available to pay the current obligation of the firm. In general a low percentage of cash to current liabilities may be regarded as a favorable indicator. However, a very ratio is also not desirable as it may lead to corporate solvency. The table shows the level of cash in relation to current liabilities of Nepal Bottlers limited.

Table 4.11

Analysis of Cash and Bank Balance to Current Liabilities

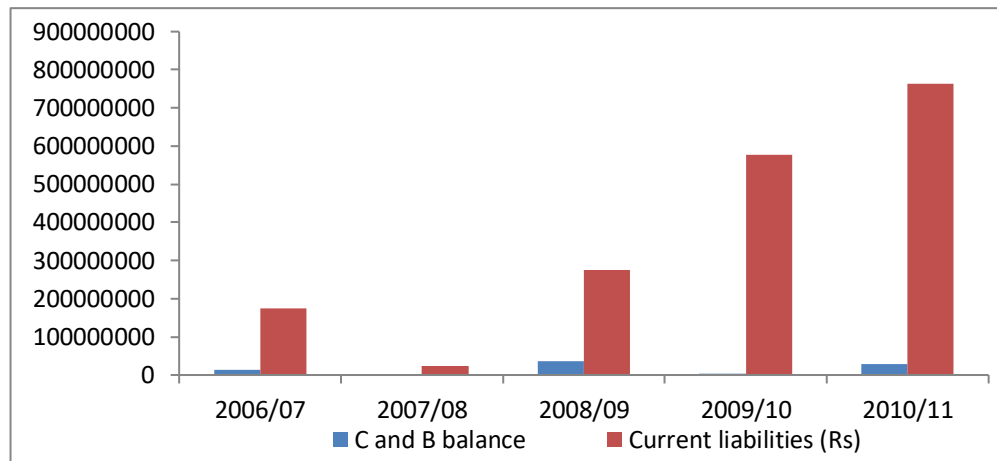
Fiscal year	C and B balance	Current liabilities (Rs)	% of C/ B on CL
2006/07	1,37,55,000	17,40,22,000	7.9
2007/08	19,17,000	2,28,91,000	0.84
2008/09	3,59,26,000	27,54,83,000	13.04
2009/10	34,64,000	57,64,00,000	6.01
2010/11	2,87,80,479	76,43,65,000	3.77
Average			6.312

Source: Annual Report of BNL for Relevant year

From the above table 4.11 the lowest ratio i.e. 0.84 percent for the fiscal year 2007/08 and highest ratio i.e. 13.04 percent for the fiscal year 2008/09. In the fiscal year 2006/07, 2009/10 and 2010/11, the levels of cash relations to current liabilities are 7.90,6.01 and 3.77 percent respectively. The ratio is in fluctuating trend during the study period. Thus it can be said that the BNL has face the problem of cash and liquidity management.

Figure 4.9

Graphical Presentations of Cash and Bank Balance and Current Liabilities



Above bar diagram shows that the graphical presentation between current liabilities and cash and bank balance. In the figure it is seen that the current liabilities are in fluctuating trend it is minimum in the year 2007/08 and maximum in the year 2008/09. There is also fluctuating trend in cash and bank balance. The portion of cash and bank balance with comparison to current liabilities are very low.

4.2 Statistical Analysis

4.2.1 Fitting the Straight Line Trend by Least Square

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

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

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

$$a = \frac{\sum Y}{N}$$

Where,

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

$$X = (X - \bar{X})$$

Table 4.12

Least Square Spreadsheet between FY and Cash and Bank Balance

Fiscal Year	Cash balance in Rs. (000) (Y)	$x=X-\bar{X}$	x^2	xY
2006/07 (1)	13,755	-2	4	-27,510
2007/08 (2)	1,917	-1	1	-1,917
2008/09 (3)	35,926	0	0	0
2009/10 (4)	3,464	1	1	3,464
2010/11 (5)	28,780.48	2	4	57,561
=	$\Sigma Y=83842$	$\Sigma x = 0$	$\Sigma x^2 =10$	$\Sigma xY=31598$

Source: Annual Report of BNL for the Relevant Year

$$\bar{X} = \Sigma x/N = 15/5 = 3$$

$$a = \Sigma y/N = 83842/5 = 16768.4$$

$$b = \Sigma xY/\Sigma x^2 = 31598/10 = 3159.8$$

$$Y_c = 16768.4 + 3159.8X$$

This trend line shows the positive figure of cash balance for future. The annual rate of increment of cash balance is same to be $3159.8 \times 1000 = 3159800$.

To predict the future cash balance fitting the above calculated cash trend line in the following table for future four year, by taking FY 2006/07 as a base year.

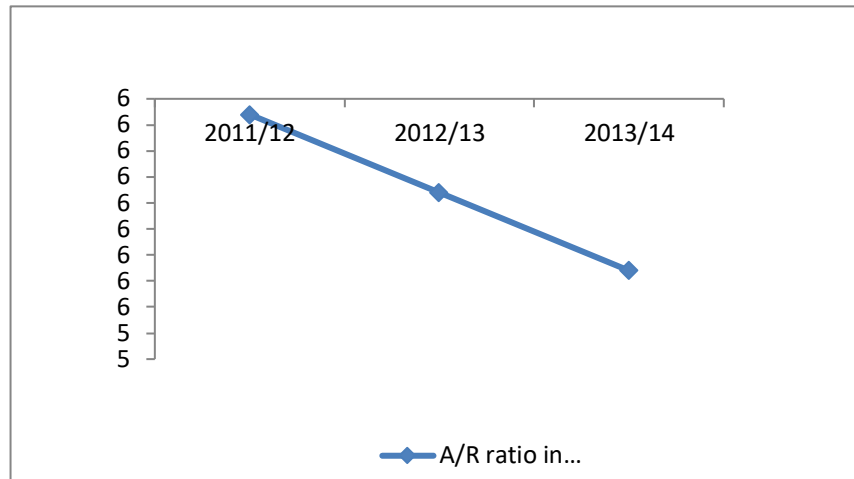
Table 4.13

Future Trend Line of Cash Balance

Fiscal Year	X	Trend line $Y_c = 16768.4 + 3159.8X$	Cash Balance (Y)
2011/12	$(2011/12-2006/07) = 5$	$Y_c = 16768.4 + 3159.8 \times 5$	32,567.4
2012/13	$(2012/13-2006/07) = 6$	$Y_c = 16768.4 + 3159.8 \times 6$	35,727.2
2013/14	$(2013/14 - 2006/07) = 7$	$Y_c = 16768.4 + 3159.8 \times 7$	38,887

By the help of fit line trend in the FY 2011/12 will be cash balance increased by 24,072.65 thousand similarly 27,511.6 and 30,950.55 thousand for the year 2012/13 and 2013/14 respectively. In the conclusion the cash generated trend is increasing slop. Which implies cash will be more than present.

Figure 4.10
Future Trend of Cash Balance



The trend line shows that cash balance will increase trend in future.

4.2.2 Correlation Coefficient between Cash/Bank Balance and Sales

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

Table 4.14
Correlation ' r ' between Actual Sales and Cash Balance (in Rs. 000)

Fiscal Year	Sales(X)	Cash Balance(Y)	$X - \bar{X}$ (U)	$Y - \bar{Y}$ (V)	U^2	V^2	UV
2006/07	621827	13755	-296866	-3013.4	88129540702	9080579.56	894576607.1
2007/08	634189	1917	-284504	-14851.4	80942639818	220564082	4225285676

2008/09	746581	35926	-172112	19157.6	29622609389	367013637.8	-3297256683
2009/10	1002720	3464	84026.8	-13304.4	7060503118	177007059.4	-1117926158
2010/11	1588149	28780	669455. 8	12011.6	44817106815 3.64	144278534.6	8041235287
Total	ΣX = 4593466	ΣY =83842	ΣU =0	ΣV = 0	ΣU²=653926 361180.80	ΣV² =917943893	ΣUV=8745914 730

$$\bar{X} = \frac{\Sigma X}{N} = \frac{459346}{5} = 91869.2$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \frac{83842}{5} = 16768.4$$

$$r = \frac{\Sigma UV}{\sqrt{\Sigma U^2 \times \Sigma V^2}} = \frac{8745914730}{\sqrt{653926361180.80 \times 917943893}} = 0.36 \approx 0.36$$

$$\therefore r = 36\%$$

We have standard deviation of actual sales X

$$\sigma_X = \sqrt{\frac{\Sigma(X - \bar{X})^2}{n}} = \frac{653926361180.80}{5} = 3,61,642.46$$

Similarly, standard deviation of cash balance Y

$$\sigma_Y = \sqrt{\frac{\Sigma(Y - \bar{Y})^2}{n}} = \frac{917943893}{5} = 13,549.50$$

The value of 'r' 0.36 i.e. 36% shows that there is lower positive correlations between cash and sales. But this positive correlation is not only due to chances. The test of significant of the value or 'r' is shows that either there is significant positive relationship or not between the cash balance and sales.

i.e. P.E. of 'r'

Since, $r < P.E.$, 'r' the value of 'r' is not at all significant so it is doubt to say that whether cash balance will increase ,actual sales will also increase or vice versa. In this, increase in cash balance leads to decrease in actual sales.

$$r = \frac{0.6745 \times 1 - (0.36)^2}{\sqrt{5}}$$

$$= 0.27$$

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

$$X - \bar{X} = r \frac{\sigma_X}{\sigma_Y} (Y - \bar{Y}), \quad \bar{X} = 918693.2, \bar{Y} = 16768.4$$

$$X - 918693.2 = 0.36 \times \frac{3,61,642.46}{13,549.50} (Y - 16768.4)$$

or $X - 918693.2 = 9.61 (Y - 16768.4)$

or $X - 918693.2 = 9.61Y - 161144.32$

$\therefore X = 9.61 Y + 757548.88$

This equation shows that sales will be increased by 9.61 per Rs. increases in cash balance.

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

$$Y - \bar{Y} = r \frac{\sigma_Y}{\sigma_X} (X - \bar{X}),$$

$$Y - 16768.4 = 0.36 \times \frac{13549.50}{361642.46} (X - 918693.2)$$

or $Y - 16768.4 = 0.013X - 11943.01$

$\therefore Y = 0.013X - 4825.38$

Thus, an assumption that cash balance is a function of sales achieved this shows that per Rs. increases in sales by 0.013 per Rs. increases in cash balance.

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

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

Table 4.15

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

Fiscal Year (X)	Ration in time (Y)	$x=(X - \bar{X})$	x^2	ΣxY
2006/07 (1)	5	-2	4	-10
2007/08 (2)	7.84	-1	1	-7.84
2008/09 (3)	11.73	0	0	0
2009/10 (4)	4.8	1	1	4.8
2010/11 (5)	5.22	2	4	10.44
$\Sigma X=15$	$\Sigma Y =34.59$	$\Sigma x =0$	$\Sigma x^2 =10$	$\Sigma xY= -2.6$

Source: Annual Report of BNL for the Relevant Year

$$\bar{X} = \frac{\Sigma X}{N} = \frac{15}{5} = 3$$

X = No. of observation

Y = Time in ratio of AR and sales straight line trend

$$Y_c = a + bx$$

$$a = \frac{\Sigma Y}{N} = \frac{34.59}{5} = 6.92$$

$$b = \frac{\Sigma XY}{\Sigma X^2} = \frac{-2.6}{10} = -0.26$$

Therefore, $Y_c = 6.92 - 0.26X$

This trend line shows that sales are directly affected by the account receivable in future. To predict the future trend for sales and receivable, fitting the above calculated sales and receivable trend in the following table for future three years by taking FY 2006/07 as a base year.

Table 4.16

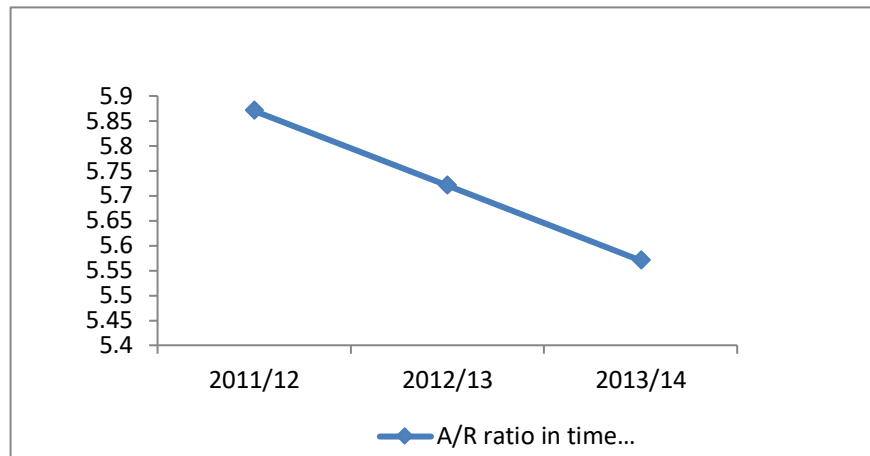
Future Trend line for Sales and Receivable

Fiscal year	X	Trend line	A/R ratio in time (Y)
2011/12	(2011/12-2006/07) = 5	$Y_c = 6.92 - 0.15 \times 7$	5.87
2012/13	(2012/13-2006/07) = 6	$Y_c = 6.92 - 0.15 \times 8$	5.72
2013/14	(2013/14 - 2006/07) = 7	$Y_c = 6.92 - 0.15 \times 9$	5.57

By the help of above data presentation indicates that sales and receivables are in negative trend for future simultaneously. If sales will be increases, receivable will be also decreases slightly. This indicates poor financial performance of BNL.

Figure 4.11

Future Trend Line of A/R and Sales by A/R Turnover Ratio



From above figure, the trend line shows that A/R turnover ratio in future will decreasing trend that means sales and receivable are slightly decreasing in future. This indicates poor financial performance of BNL.

4.2.4 Analysis of Correlation Coefficient between Sales and Account Receivables

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

as receivables increases or vice-versa. It means that there should be positive relationship between sales and receivables.

Table 4.17
Correlation 'r' between Receivables and Sales (in Rs. 000)

Year	Receivables (X)	Sales (Y)	Y - \bar{Y} (y)	y ²	X - \bar{X} (x)	XY	X ²
2006/07	124178	621827	-218253	47634372009	-7989.8	1743797819	63836904
2007/08	80845	634189	-205891	42391103881	-51323	10566943793	2634050329
2008/09	63657	746581	-93499	8742063001	-68511	6405709989	4693757121
2009/10	304120	1588149	748069	559607228761	171952	128631960688	29567490304
2010/11	88039	609654	-230426	53096141476	-44129	10168468954	1947368641
	$\Sigma X = 660839$	$\Sigma Y = 4200400$	$\Sigma y = 0$	$\Sigma y^2 = 71147090128$	$\Sigma x = 0$	$\Sigma xy = 157516881243.40$	$\Sigma x^2 = 38906503299$

Source: Annual Report of BNL for the Relevant Year

$$\bar{X} = \frac{\Sigma X}{N} = \frac{660839}{5} = 132168$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \frac{4200400}{5} = 840080$$

$$r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}} = \frac{157516881243.40}{\sqrt{38906503299 \times 71147090128}} = 0.30$$

The value of r + 0.30 shows that there is highly positive correlation between sales and receivables. The test of significant of the value of shows either there is significant positive relation or not between sales and receivables.

The probable error of 'r'

$$r = \frac{(1 - r^2) \times 0.6745}{\sqrt{n}} = \frac{1 - 0.30^2 \times 0.6745}{\sqrt{5}} = 0.275$$

$$6 \times \text{P.E. } r' = 6 \times 0.275 = 1.65$$

The probable error of 'r' is greater than correlation coefficient and then also greater value of 6 P.E. So, 6×P.E. 'r' the value of r is lowest. So that, there is no significant and no relationship

between sales and account receivables. We can say that if sales will increase, receivables will not increase or vice versa. A regression line can also be fitted to show the degree relationship between sales and account receivables. For this purpose receivable have been assumed to be dependent on sales.

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

$$X - \bar{X} = r \frac{\sigma_X}{\sigma_Y} (Y - \bar{Y})$$

$$\sigma_X = \sqrt{\frac{\Sigma(X - \bar{X})^2}{n}} = \sqrt{\frac{38906503299}{5}} = 88211.68$$

$$\sigma_Y = \sqrt{\frac{\Sigma(Y - \bar{Y})^2}{n}} = \sqrt{\frac{711470909128}{5}} = 377219.01$$

$$X - 132168 = 0.275 \times \frac{88211.68}{377219.01} (Y - 840080)$$

$$X - 132168 = 0.064Y - 53765.12$$

$$X = 0.064Y + 78402.88$$

$$X = 78402.88 + 0.064Y$$

Thus, for Rs.1. increases in sales, the amount receivable increases by Rs.0.064.

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

$$Y - \bar{Y} = r \frac{\sigma_Y}{\sigma_X} (X - \bar{X})$$

$$Y - 840080 = 0.275 \times \frac{377219.01}{88211.68} (X - 132168)$$

or $Y - 840080 = 1.17X - 154636.56$

or $Y = 685443.44 + 1.17X$

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

To find out the correlation between receivables, cash and bank balance Karl Pearson's coefficient of correlation r is determined. For this purpose account receivable and cash and bank balance are

assumed to be interrelated economic variables let us assume receivables X is dependent variable and cash and bank balance are independent variables.

Table 4.18

Correlation between Account Receivable and Cash & Bank Balance (Rs. in '000')

Fiscal year	A/R (X)	C/B balance (Y)	X - \bar{X} (x)	Y - \bar{Y} (y)	x ²	y ²	xy
2006/07	124178	13755	-32137.4	-3013.4	1032812479	9080579.56	96842841.16
2007/08	80845	1917	-75470.4	-14851	5695781276	220564082	1120841099
2008/09	63657	35926	-92658.4	19157.6	8585579091	367013637.8	-1775112564
2009/10	208777	3464	52461.6	-13304	2752219475	177007059.4	-697970111
2010/11	304120	28780	147804.6	12011.6	21846199781	144278534.6	1775369733
	$\Sigma X =$ 781577	$\Sigma Y =$ 83842	$\Sigma x = 0$	$\Sigma y = 0$	$\Sigma x^2 =$ 39912592101	$\Sigma y^2 =$ 917943893	$\Sigma xy =$ 519970998

Source: Annual Report of BNL for the Relevant Year

$$\bar{X} = \frac{\Sigma X}{N} = \frac{781577}{5} = 156315.4$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \frac{83842}{5} = 16768.4$$

$$r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}} = \frac{519970998}{\sqrt{39912592101 \times 917943893}} = 0.086$$

The value of 'r' is 0.086 shows that there is negative correlation between receivables and cash and bank balance. But the negative correlation is not only due to chances. The test of significance negative and the value of 'r' shows either there is a significance negative correlation or not between account receivables and cash and bank balance.

$$\text{The probable error P.E. (r)} = \frac{0.6745 (1 - r^2)}{\sqrt{n}} = \frac{0.6745 \times 1 - 0.086^2}{\sqrt{5}} = 0.29$$

Since the value of $r < 6P.E.$ the value of r is not at all significant so that it is doubtful to say that weather receivable increases cash balances will increase and vice versa. So that there is no extra evidence to prove that either receivable will increase cash and bank balance increases.

On the basis of analysis of answers given by them as well as result of financial and statistical analysis the main finding of this study is highlighted below:

4.4 Major Findings

- Cash management in the BNL is not based on scientific approach. A more serious aspect of cash management has been the absence of cash planning and cash budgeting in BNL. Since the cash and bank balance increase and decrease percentage are 1774.07% and 86.06% respectively.
- The highest cash turnover is 330.82 times in the FY 2007/08 when average being 142.62. In the year 2009/10, the cash turnover time is more than that of the averages. This shows that in the fiscal year 2009/10 it is 289.47 times which averages are above from the average. Cash turnover ratio is decreasing in FYs 2006/07, 2008/09 and 2010/11 since the sales and cash bank balance is fluctuating.
- The maximum period refers the slow inventory turnover and minimum period prefers the fast inventory turnover. The average ICP is found 88.09 = 88 days which is more than that of year 2010/11 and 2009/10 2008/09 and less than in the year 2007/08, 2006/07 and 2005/06 inventory conversion period.
- The calculation of receivable conversion period of BNL in the has shown fluctuating trend in the study Period. It varies from the minimum 30.69=30 days in the year 2008/09 to maximum 75.00=75 days in the year 2009/10. The average receivable conversion period is 57.42 =57 days. In the year 2008/09, 2007/08 and 2005/06, collection period is less than average and in the year 2010/11, 2009/10 and 2006/07 collection period is higher than average collection period.
- In the study period PDP varies from maximum of 61.76 days in the year 2006/07 and minimum of 44.91 days in the year 2007/08. The average payable period of 57.178 = 57 days has taken by company for the payment of trade creditors.

- The average cash conversion cycle of BNL (Balaju) is 103 days which seem to be not satisfactory but company's credibility is good. Firm could not get the credit due to the company delay in paying its obligation. It has maximum of 128 days in the year 2007/08 and minimum of 57 days in the year 2008/09.
- Receivable turnover time in the year 2008/09 is 11.73, which is very high in the study period whereas in the other previous study years it seems to be homogeneity. The company account receivable is 9 to 21% that is very positive signal for the company because collection of sales over than 79.7 (about 80) percent in relevant year is a satisfactory
- The analysis of account receivable to cash and bank balance clearly shows that in fluctuating trend i. e. 11.08 percent, 2.37 percent, 56.44 percent , 6.56 and 1.65 percent respectively for year 2006/07, 2007/08, 2008/09,2009/10 and 2010/11 respectively. During the study period cash and bank balance is not homogeneity i.e. from 1.65%and 56.44 percent the amount of cash and bank balance with respect to account receivable is minimum which shows that the management is less concerned to speed of the collections of account receivables.
- cash and bank balance with respect to current assets has been fluctuating trend. During the study period it is the lowest 0.42 percent for the year 2007/08 and the highest 8.24 percent in the year 2008/09. On an average the projection of cash and bank balance to current assets for the study period 3.24 percent while comparing with the average it is found that the percentage of cash and bank balance to current assets for the year except 2007/08, 2009/10 and 2006/07 are lower. Thus it can be said that the cash position of BNL (Balaju) is not good.
- Cash and bank balance to total assets in the fluctuating trend. The ratio varies from minimum 0.20 percent to maximum 3.43 percent in the year 2007/08 and 2008/09 respectively. It has average ratio of 1.40 percent which seems very low for the company BNL (Balaju). On the average 1.40 percent during the study period which is greater than in the year i.e. 2006/07, 2008/09 and 2010/11. Among the components of current assets cash and bank balance hold the minimum proportion.
- The lowest ratio i.e. 0.84 percent for the fiscal year 2007/08 and highest ratio i.e. 13.04 percent for the fiscal year 2008/09. In the fiscal year 2006/07, 2009/10 and 2010/11, the levels of cash relations to current liabilities are 7.90, 6.01 and 3.77 percent respectively. The

ratio is in fluctuating trend during the study period. Thus it can be said that the BNL has face the problem of cash and liquidity management.

- Modern practices with respect to debt collection monitoring the payment behavior of customers and relevant banking arrangements in connection with collection of receivables have been virtually ignored in BNL (Balaju).
- Management has taken liberal credit policy to sales of goods. Hence the cash and bank balance of the study period is minimum of account receivable.
- No optimum cash balance is maintained. The cash and bank balance with respect to current assets has been fluctuating trend similar is the case with respect to the total assets.
- Organizational goals and policy are set up by the top executive level in accordance with plan and policies of the BNL.
- Finally, BNL fails to maintain its periodic performance report systematically.
- Tactical sales achievement rate detailed by each month and quarter is satisfactory. It has negative or unfavorable limit.

CHAPTER –V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

Nepal has started economic planning for economic development of the nation from B.S. 2013. After launching first five year plan in 1956 A.D., industrial policy was formally announced in 1957 A.D. Because of the different shortcomings to this new industrial policy has declared to attract the FDI. Out of the different establishments established in the foreign investment, Bottlers Nepal limited was established in 1973 A.D. as a private limited company under the Company Act 1964 A.D. It was converted into public limited company in 1984 AD. Bottlers Nepal (Terai) Ltd is the one formed as the subsidiary company of Bottlers Nepal Ltd, Balaju, Kathmandu. Main objectives behind establishing Bottlers Nepal Ltd are, to produce and distribute soft drink in reasonable fair prices to the general public. This company has growing concern of greater rational importance in the area of providing goods and services to the public at large. It is manufacturing company and industrial enterprise. It contributes significantly to the economic development of the country. However, BNL is found to be suffering from cash management, liquidity ratio, account receivable and assets etc and weakness in investment opportunity etc. So the objective of this study is to have true insight into its cash management. An effort has been made in the study to provide a possible suggestive framework for the better financial performance of BNL (Terai).

For the purpose of conducting this study, mainly the secondary data were used. Necessary financial information obtained from the balance sheet and profit and loss account besides, interview with the related persons of BNL, i.e. General Manager, Charter Accountant (CA), Account Officers and Divisional Manager through the means of questionnaire.

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

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

- ii. The lack of accurate and proper sales forecasts is one of the important constraints that affect the financial performance of the corporation. If the corporation forecasts the expected sales accurately, it can manage the various activities accordingly. For example, it can plan for capital, investment, requirement of current expenses and inventories etc.
- iii. The quality of management itself is a scarce factor in BNL. The performance of BNL exhibits that the management lacks basic knowledge of financial management.
- iv. Restrictive credit policy is one of the important constraints that affected the sales volume of the corporations. If it adopts liberal credit policy, it can increase the sales volume and the receivable turnover by employing a very restrictive credit policy. But however, this is true up to the certain point only because such strategy leads to decrease the sales.
- v. Due to certain constraints in management, BNL denied to provide information except balance sheet and profit and loss account, which are not sufficient for analysis of cash management.

5.2 Conclusion

Bottlers Nepal (Balaju) Ltd is lacking SWET analysis (Strength, Weakness, Opportunity and Threats) for planning and budgeting. It has not practice for systematic and scientific sales planning. It does not prepare complete profit plan and budget. It is used to prepare sales, production and expenditure. It has not planned all of its functional budgets related to its activities because efficiency of budget lies on the coordination between different operating activities. It has not followed participative management policies and all the decision making and policy making are conducted and controlled by top level management on the basis of their own personal decision and views. Bottlers Nepal Ltd has not clear arrangement of roles and responsibility of the employee and managers and there is no proper delegation of authority along with responsibility. Sales achievement is not satisfactory this is continuously decreased. It is lacking proper control process for revision of budgeted sales and also lacking consideration of all the factors influencing sales budget. Annual sales budget and achievement shows that budgeted sales is more variable then actual sales. Due to lack of clear definition and classification of costs as controllable and uncontrollable, it has no control over its costs either it is variable of fixed. For optimum utilization and control over costs, clear definition and classification of cost is necessary which ultimately help to increase the profitability. Variance between budgeted and actual sales in 2nd quarter is unfavorable. Profit and loss of Bottlers Nepal Ltd (Balaju) is very sensitive with

the change in the amount of sales revenue. Operating profit can be increased by increasing the sales. But net profit cannot increase by increasing the sales it is because of inability to cut down unnecessary cost. It lacking fund for investment in fixed assets and it is not using any evaluation tools needs for the profitability analysis of long term investment decisions. It is not using all of its assets optimally. It has investment high amount in non- productive assets because capacity utilization is very low. It is lacking communication of budget between all the concerned operating level employees due to this, Bottlers Nepal (Balaju) Ltd facing problem in achievement of budget. It is not monitoring all of its costs. Sales are decreasing whereas expenses are increasing compared to change in sales. Bottlers Nepal Ltd does not show the corporate social responsibility and public interest expenditure on the sales related promotional activity. Cash planning and cash budgeting in a formal basis so as to project cash surplus or cash deficit for a period not exceeding one year and broken up into shorter intervals. Managing of cash flows so as to accelerate the inflows and as far as possible to decelerate out flows. Optimizing the level of cash balance by matching the cost of holding excess cash and the danger of cash deficiency. Investing idle cash balance taking into account the cost of administering investments in marketable securities.

5.3 Recommendations

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

i. Efficient Management of Cash

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

ii. To Prepare Monthly Trial Balance Cash/Funds Flow Statements and Financial Reports:

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

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

iii. Adopt Effective Credit Policy:

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

iv. Maintain Optimum Cash Balance:

BNL should maintain optimum cash balance by matching between surplus and deficiency of cash balance. As the size of the cash balance directly varies with peak period, slack period, and general economic factors and investment opportunities. The BNL should take all those situations, while determining optimum cash balance. During the peak period, slack period, and general economic factors and investment opportunities. The BNL should take all those situations, while determining optimum cash balance. During the peak period while in the production those the company should hold more cash to make huge purchase for the fulfillment of domestic as well as international demand. Like this small cash or bank balance should be kept by the BNL in off season because of no any purchase is made in off season. Moreover, in general economic conditions such as sugar flour and rice. Some time BNL get a chance to take advantage of investment opportunity to purchase shares, debentures, marketable securities, when interest is

expected to decline etc. The company should exploit those profitable opportunities and keep cash reserve to do so.

v. Invest the Surplus Cash in Profitable Opportunities:

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

vi. Investment in Marketable Securities:

There is close relationship between cash and marketable securities. Excess cash should normally be invested in marketable securities which can be conveniently and promptly converted into cash. The excess cash may build up during slack season but it would be needed when the demands pick up. This excess cash during slack season is idle temporarily, but has predictable requirement later on next excess cash may be held as a buffer to meet unpredictable financial needs. The financial manager must decide about the portfolio of marketable securities in which the firm's surplus cash should be invested. A firm can invest its temporary transaction balance or precautionary balance of both, its primary criteria in selecting a security will be its quickest convertibility into cash when the need for cash arises. In choosing these securities are safety maturity and marketability.

The basic objective of this study is to examine current practice and application of sales planning of Bottlers Nepal Ltd. It has tried to answer of certain questions stated in the statement of problem. For that purpose different statistical and financial tools have been used like mean, standard deviation, coefficient of variation, coefficient of determination, correlation, regression, time series, graphical presentation, diagrammatic presentation, trend line analysis, cost volume profit analysis, etc. The last important work is to list the finding, issues and challenge of the study and to give suggestion for the improvement. This chapter includes the summary, conclusion and recommendation on the basis of the main finding, which are derived from the analysis of financial statement of Bottlers Nepal Ltd.

The modern business organization and its offshoot sales planning are abundantly used by the company to measure their efficiency. Sales planning, a very sensitive part of profit planning which is the main concern of this study and it was related to Bottlers Nepal Ltd

BIBLIOGRAPHY

Books

- Agrawal, Govinda Ram (2002). *Dynamics of Business Environment in Nepal*. Kathmandu: M.K. Publishers.
- Agrawal, Govinda Ram (1994). *Management Control System for Enterprises in Developing Countries*. Kathmandu: CDDA, T.U.
- American Accounting Association (1980). *Reading in Cost Accounting Budgeting and Control*. New York: John Wiley and Sons.
- Anthony, Rebrt N. (1964). *Management Accounting: Text and Cases*. Homewood Illinois: Richard D. Irwin Inc.
- Bajaracharya, Puskar and Shrestha, Balkirishna (1983). *Management Problems in Public Sector Manufacturing Enterprises in Nepal*. Kathmandu, CEDA T.U.
- Gupta, S.P. (1988). *Managerial Accounting*. New Delhi: Tata McGraw Hill Publishing Company Limited.
- Jain, S.P. and A.L. Anrag (1991). *Cost Accounting*. New Delhi: Kalyani Publishers.
- Keller, Isac Wayne; Farrara, William L. (1966). *Management Accounting for Profit Control*. New work: McGraw Hill Publixhing Co.
- Khan, M. Y., Jain P .K. (1989). *Management Accounting*. New Delhi: Tata McGraw Hill Publishing Co.
- Kothari, C.R. (1990). *Research Methods: Methods and Tevhniques*. (2nd edition). New Delhi: Wishwa Prakashan.

- Lynch, Richard M., Williamson, Robert W. (1995). ***Accounting for Management: Planning and Control***. New Delhi: Tata McGraw Hill Publishing Co.Ltd.
- Pandey, I.M. (1994). ***Financial Management***. New Delhi: Vikash Publishing House Pvt.Ltd.
- Welsch, Glenn A. (1999). ***Budgeting: Profit Planning and Control***. New Delhi: Prentice Hall of India.
- Williams, Jan R., Haka, Susan F., and Bettner, Mark S. (2004). ***Financial and Managerial Accounting: The Basis for Business Decisions***. New Delhi: Tata McGraw Hill.
- Wolf, Howard K. and Pant, P. R. (2004). ***Social Science Research and Thesis Writing***. Kathmandu: Buddha Academic Enterprises.

Unpublished Master Level Thesis

- Baral, K.G. (1994) ***A study on Financial Analysis of Large Scale Manufacturing Industries of Western Region*** an unpublished Master Level thesis submitted to Nepal Commerce Campus Faculty of Management, TU.
- Das, M. (2012), ***A study of cash management in public manufacturing company (Bottlers Nepal Balaju Limited)***. an unpublished thesis, Central Department of Management, Faculty of Management T.U.
- Gautam, U. (1998) ***A Financial Study of Manufacturing PEs in Nepal with reference to Janakpur Cigarette Factory Limited (JFCL)*** an unpublished thesis submitted to Central Department of Management, Faculty of Management TU.
- Giri, S. (2009), ***"Profitability in Manufacturing Public Enterprises of Nepal"*** an unpublished Master level thesis submitted to Shanker Dev Campus, Faculty of Management T.U.

- Joshi, K. R. (1998) ***Financial Performance of Commercial Bank***. an unpublished Master level thesis submitted to Shanker Dev Campus, Faculty of Management T.U.
- Pathak, R.R. (2000) ***A Comparative Study on Financial Performance between Nepal Grindlays Bank Limited (NGBL) and Himalayan Bank Ltd. (HBL)*** an unpublished Master level thesis submitted to Shanker Dev Campus, Faculty of Management T.U.
- Pradhan, M. L. (2004) made ***Comparative Study on Financial Performance of Hetauda Textile Ltd. and Shree Textile (Pvt) Ltd*** an unpublished master Level thesis submitted to Nepal Commerce Campus Faculty of Management, TU.
- Sapkota, R. (2004) ***Measuring the Effectiveness of Short term Financing. A case Study of 15 Nepalese Manufacturing Companies*** an unpublished Master level thesis submitted to Shanker Dev Campus, Faculty of Management T.U.
- Shrestha, R. (2007), ***An Evaluation working Capital Management of Bottlers Nepal Limited (BNL)***. an unpublished Master level thesis submitted to Shanker Dev Campus, Faculty of Management T.U.
- Singh, D.B. (1991) ***Short-Term Financing Pattern of Nepalese Manufacturing Public Enterprises*** an unpublished Master Level thesis submitted to Nepal Commerce Campus, Faculty of Management, TU.
- Subedi, B. (2000) ***Financial Performance Analysis of Magnesric Industry of Nepal*** an unpublished Master level thesis submitted to Central Department of Management, Faculty of Management T.U.

Publications

Abhiyan Saptahik, weekly, various issues.

Bottlers Nepal Pvt. Ltd. Annual Report, 2005/06-2010/11

Economic Survey 2011

Interim Plan (2006)

New Business Age, various issues.

WEBSITES

www.bottlersnepal.com

www.sebon.com

Appendix -I

Table 4.1

Analysis of Cash Balance

Fiscal year	Cash and Bank balance (Rs)	Increase (Decrease) %
2006/07	13,755,000	-
2007/08	1,917,000	-86.06
2008/09	35,926,000	1774.07
2009/10	3,464,000	-90.36
2010/11	28,780,479	730.84
Average	16,768,496	465.698

Source: Annual report of BNL for the relevant year

Table 4.2

Analysis of Cash Turnover

Fiscal year	Cash and bank balance (Rs)	Sales (Rs)	Cash Turnover (Time)
2006/07	13,755,000	621,827,381	45.21
2007/08	1,917,000	634,189,582	330.82
2008/09	35,926,000	746,581,607	20.78
2009/10	3,464,000	1,002,720,181	289.47
2010/11	28,780,479	1,588,149,524	55.18
Average	16,768,496	918,693,655	148.292

Source: Annual Report of BNL for the Relevant Year

Table 4.3**Analysis of Inventory Conversion Period**

Fiscal Year	Days in a year	Sales (Rs)	Inventory (Rs)	Inventory turnover time	I.C.P. (days)
2006/07	360	62,18,27,381	18,49,80,000	3.36	107.09
2007/08	360	63,41,89,582	22,40,70,000	2.83	127.19
2008/09	360	74,65,81,607	17,69,36,000	4.21	85.31
2009/10	360	1,00,27,20,181	20,87,77,449	4.8	74.95
2010/11	360	1,58,81,49,524	30,41,20,602	5.22	68.93
Average					92.694

Source: Annual Report of BNL for the Relevant Year

Table 4.4**Analysis of Receivable Conversion Period**

Fiscal Year	Days in a year	Sales (Rs)	Receivables (Rs)	Receivable turnover times	RCP days
2006/07	360	62,18,27,381	12,41,78,000	5	72
2007/08	360	63,41,89,582	8,08,45,000	7.84	45.91
2008/09	360	74,65,81,607	6,36,57,000	11.73	30.69
2009/10	360	1,00,27,20,181	20,87,77,459	4.8	75
2010/11	360	1,58,81,49,524	30,41,20,602	5.22	68.96
Average					58.512

Source: Annual Report of BNL for the Relevant Year

Table 4.5
Analysis of Payable Conversion Period

Fiscal year	Creditors (Rs)	Purchase (Rs)	Days in a year	PDP (days)
2006/07	5,42,96,000	31,64,96,000	360	61.76
2007/08	7,23,33,000	33,93,15,000	360	44.91
2008/09	3,53,36,000	21,28,80,000	360	59.76
2009/10	4,63,02,000	30,15,78,000	360	55.28
2010/11	5,31,25,686	45,51,34,000	360	42.02
Average				52.746

Source: Annual Report of BNL for the relevant year

Table 4.6
Analysis of Cash Conversion Cycle (Days)

Fiscal year	ICP	RCP	PDP	CCC
2006/07	107	72	62	117
2007/08	127	46	45	128
2008/09	85	31	59	57
2009/10	75	75	55	95
2010/11	69	69	42	96
Average				98.6

Source: Audited Balance Sheet of BNL for the Relevant Year

Table 4.7**Analysis of Account Receivable Turnover of BNL**

Fiscal Year	Receivable (Rs)	Sales (Rs)	Ratio in (Time)	Total Collection (%)
2006/07	12,41,78,000	62,18,27,381	5.00	80.04
2007/08	8,08,45,000	63,41,89,582	7.84	87.25
2008/09	6,36,57,000	74,65,81,607	11.73	91.48
2009/10	20,87,77,459	1,00,27,20,181	4.80	79.7
2010/11	30,41,20,602	1,58,81,49,524	5.22	80.85

Source: Audited Balance Sheet of BNL for the Relevant Year

Table 4.8**Analysis of Account Receivable to Cash and Bank Balance**

Fiscal year	AR (Rs.)	Cash and bank balance (Rs.)	% of AR
2006/07	12,41,78,000	1,37,55,000	11.08
2007/08	8,08,45,000	19,17,000	2.37
2008/09	6,36,57,000	3,59,26,000	56.44
2009/10	20,87,77,459	34,64,000	6.56
2010/11	30,41,20,602	2,87,80,479	1.65
Average			15.62

Source: Audited Balance Sheet of BNL for the Relevant Year

Table 4.9
Analysis of Cash and Bank Balance to Current Assets

Fiscal year	C/B balance	Current assets (Rs)	% of C/B on CA
2006/07	1,37,55,000	44,78,31,000	3.07
2007/08	19,17,000	45,32,11,000	0.42
2008/09	3,59,26,000	43,60,45,000	8.24
2009/10	34,64,000	46,97,01,000	0.74
2010/11	2,87,80,479	48,14,39,400	5.97
Average			3.688

Source: Audited Balance Sheet of BNL for the Relevant Year

Table 4.10
Analysis of Cash and Bank Balance to Total Assets

Fiscal year	C and B balance	Total assets	% of C and B balance on T.A.
2006/07	1,37,55,000	88,65,55,000	1.55
2007/08	19,17,000	97,52,66,000	0.2
2008/09	3,59,26,000	1,04,83,53,000	3.43
2009/10	34,64,000	1,25,20,66,000	0.77
2010/11	2,87,80,479	1,45,98,15,300	1.97
Average			1.584

Source: Annual Report of BNL for the Relevant Year

Table 4.11

Analysis of Cash and Bank Balance to Current Liabilities

Fiscal year	C and B balance	Current liabilities (Rs)	% of C/ B on CL
2006/07	1,37,55,000	17,40,22,000	7.9
2007/08	19,17,000	2,28,91,000	0.84
2008/09	3,59,26,000	27,54,83,000	13.04
2009/10	34,64,000	57,64,00,000	6.01
2010/11	2,87,80,479	76,43,65,000	3.77
Average			6.312

Source: Annual Report of BNL for Relevant year

Fitting the Straight Line Trend by Least Square

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

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

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

$$a = \frac{\sum Y}{N}$$

Where,

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

$$X = (X - \bar{X})$$

Table 4.12

Least Square Spreadsheet between FY and Cash and Bank Balance

Fiscal Year	Cash balance in Rs. (000) (Y)	$x=X-\bar{X}$	x^2	xY
2006/07 (1)	13,755	-2	4	-27,510
2007/08 (2)	1,917	-1	1	-1,917
2008/09 (3)	35,926	0	0	0
2009/10 (4)	3,464	1	1	3,464
2010/11 (5)	28,780.48	2	4	57,561
=	$\Sigma Y=83842$	$\Sigma x = 0$	$\Sigma x^2 = 10$	$\Sigma xY=31598$

Source: Annual Report of BNL for the Relevant Year

$$\bar{X} = \Sigma x/N = 15/5 = 3$$

$$a = \Sigma y/N = 83842/5 = 16768.4$$

$$b = \Sigma xY/\Sigma x^2 = 31598/10 = 3159.8$$

Table 4.13

Future Trend Line of Cash Balance

Fiscal Year	X	Trend line $Y_c = 16768.4 + 3159.8X$	Cash Balance (Y)
2011/12	$(2011/12-2006/07) = 5$	$Y_c = 16768.4 + 3159.8 \times 5$	32,567.4
2012/13	$(2012/13-2006/07) = 6$	$Y_c = 16768.4 + 3159.8 \times 6$	35,727.2
2013/14	$(2013/14 - 2006/07) = 7$	$Y_c = 16768.4 + 3159.8 \times 7$	38,887

Table 4.14

Correlation 'r' between Actual Sales and Cash Balance (in Rs. 000)

Fiscal Year	Sales (X)	Cash Balance (Y)	X - \bar{X} (U)	Y - \bar{Y} (V)	U ²	V ²	UV
2006/07	621827	13755	-296866	-3013.4	88129540702	9080579.56	894576607.1
2007/08	634189	1917	-284504	-14851.4	80942639818	220564082	4225285676
2008/09	746581	35926	-172112	19157.6	29622609389	367013637.8	-3297256683
2009/10	1002720	3464	84026.8	-13304.4	7060503118	177007059.4	-1117926158
2010/11	1588149	28780	669455.8	12011.6	448171068153.64	144278534.6	8041235287
Total	ΣX = 4593466	ΣY = 83842	ΣU = 0	ΣV = 0	ΣU² = 653926361180.80	ΣV² = 917943893	ΣUV = 8745914730

$$\bar{X} = \frac{\Sigma X}{N} = \frac{459346}{5} = 91869.2$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \frac{83842}{5} = 16768.4$$

$$r = \frac{\Sigma UV}{\sqrt{\Sigma U^2 \times \Sigma V^2}} = \frac{8745914730}{\sqrt{653926361180.80 \times 917943893}} = 0.36 \approx 0.36$$

∴ r = 36%

We have standard deviation of actual sales X

$$\sigma_X = \sqrt{\frac{\Sigma(X - \bar{X})^2}{n}} = \frac{653926361180.80}{5} = 3,61,642.46$$

Similarly, standard deviation of cash balance Y

$$\sigma_Y = \sqrt{\frac{\Sigma(Y - \bar{Y})^2}{n}} = \frac{917943893}{5} = 13,549.50$$

The value of 'r' 0.36 i.e. 36% shows that there is lower positive correlations between cash and sales. But this positive correlation is not only due to chances. The test of significant of the value

or 'r' is shows that either there is significant positive relationship or not between the cash balance and sales.

i.e. P.E. of 'r'

Since, $r < P.E.$, 'r' the value of 'r' is not at all significant so it is doubt to say that whether cash balance will increase ,actual sales will also increase or vice versa. In this, increase in cash balance leads to decrease in actual sales.

$$r = \frac{0.6745 \times 1 - (0.36)^2}{\sqrt{5}}$$

$$= 0.27$$

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

$$X - \bar{X} = r \frac{\sigma_X}{\sigma_Y} (Y - \bar{Y}), \quad \bar{X} = 918693.2, \bar{Y} = 16768.4$$

$$X - 918693.2 = 0.36 \times \frac{3,61,642.46}{13,549.50} (Y - 16768.4)$$

$$\text{or } X - 918693.2 = 9.61 (Y - 16768.4)$$

$$\text{or } X - 918693.2 = 9.61Y - 161144.32$$

$$\therefore X = 9.61 Y + 757548.88$$

This equation shows that sales will be increased by 9.61 per Rs. increases in cash balance.

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

$$Y - \bar{Y} = r \frac{\sigma_Y}{\sigma_X} (X - \bar{X}),$$

$$Y - 16768.4 = 0.36 \times \frac{13549.50}{361642.46} (X - 918693.2)$$

$$\text{or } Y - 16768.4 = 0.013X - 11943.01$$

$$\therefore Y = 0.013X - 4825.38$$

Thus, an assumption that cash balance is a function of sales achieved this shows that per Rs. increases in sales by 0.013 per Rs. increases in cash balance.

Table 4.15

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

Fiscal Year (X)	Ration in time (Y)	$x=(X - \bar{X})$	x^2	ΣxY
2006/07 (1)	5	-2	4	-10
2007/08 (2)	7.84	-1	1	-7.84
2008/09 (3)	11.73	0	0	0
2009/10 (4)	4.8	1	1	4.8
2010/11 (5)	5.22	2	4	10.44
$\Sigma X=15$	$\Sigma Y =34.59$	$\Sigma x =0$	$\Sigma x^2 =10$	$\Sigma xY= -2.6$

Source: Annual Report of BNL for the Relevant Year

$$\bar{X} = \frac{\Sigma X}{N} = \frac{15}{5} = 3$$

X = No. of observation

Y = Time in ratio of AR and sales straight line trend

$$Y_c = a + bx$$

$$a = \frac{\Sigma Y}{N} = \frac{34.59}{5} = 6.92$$

$$b = \frac{\Sigma XY}{\Sigma X^2} = \frac{-2.6}{10} = -0.26$$

Therefore, $Y_c = 6.92 - 0.26X$

This trend line shows that sales are directly affected by the account receivable in future. To predict the future trend for sales and receivable, fitting the above calculated sales and receivable trend in the following table for future three years by taking FY 2006/07 as a base year.

Table 4.16

Future Trend line for Sales and Receivable

Fiscal year	X	Trend line	A/R ratio in time (Y)
2011/12	(2011/12-2006/07) = 5	$Y_c = 6.92 - 0.15 \times 7$	5.87
2012/13	(2012/13-2006/07) = 6	$Y_c = 6.92 - 0.15 \times 8$	5.72
2013/14	(2013/14 - 2006/07) = 7	$Y_c = 6.92 - 0.15 \times 9$	5.57

Table 4.17

Correlation 'r' between Receivables and Sales (in Rs. 000)

Year	Receivables (X)	Sales (Y)	Y - \bar{Y} (y)	y ²	X - \bar{X} (x)	XY	X ²
2006/07	124178	621827	-218253	47634372009	-7989.8	1743797819	63836904
2007/08	80845	634189	-205891	42391103881	-51323	10566943793	2634050329
2008/09	63657	746581	-93499	8742063001	-68511	6405709989	4693757121
2009/10	304120	1588149	748069	559607228761	171952	128631960688	29567490304
2010/11	88039	609654	-230426	53096141476	-44129	10168468954	1947368641
	$\Sigma X = 660839$	$\Sigma Y = 4200400$	$\Sigma y = 0$	$\Sigma y^2 = 71147090128$	$\Sigma x = 0$	$\Sigma xy = 157516881243.40$	$\Sigma x^2 = 38906503299$

Source: Annual Report of BNL for the Relevant Year

$$\bar{X} = \frac{\Sigma X}{N} = \frac{660839}{5} = 132168$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \frac{4200400}{5} = 840080$$

$$r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}} = \frac{157516881243.40}{\sqrt{38906503299 \times 71147090128}} = 0.30$$

The value of r + 0.30 shows that there is highly positive correlation between sales and receivables. The test of significant of the value of shows either there is significant positive relation or not between sales and receivables.

The probable error of 'r'

$$r = \frac{(1 - r^2) \times 0.6745}{\sqrt{n}} = \frac{1 - 0.30^2 \times 0.6745}{\sqrt{5}} = 0.275$$

$$6 \times \text{P.E. 'r'} = 6 \times 0.275 = 1.65$$

The probable error of 'r' is greater than correlation coefficient and then also greater value of 6 P.E. So, 6×P.E. 'r' the value of r is lowest. So that, there is no significant and no relationship between sales and account receivables. We can say that it sales will increase, receivables will

not increase or vice versa. A regression line can also be fitted to show the degree relationship between sales and account receivables. For this purpose receivable have been assumed to be dependent on sales.

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

$$X - \bar{X} = r \frac{\sigma_X}{\sigma_Y} (Y - \bar{Y})$$

$$\sigma_X = \sqrt{\frac{\Sigma(X - \bar{X})^2}{n}} = \sqrt{\frac{38906503299}{5}} = 88211.68$$

$$\sigma_Y = \sqrt{\frac{\Sigma(Y - \bar{Y})^2}{n}} = \sqrt{\frac{711470909128}{5}} = 377219.01$$

$$X - 132168 = 0.275 \times \frac{88211.68}{377219.01} (Y - 840080)$$

$$X - 132168 = 0.064Y - 53765.12$$

$$X = 0.064Y + 78402.88$$

$$X = 78402.88 + 0.064Y$$

Thus, for Rs.1. increases in sales, the amount receivable increases by Rs.0.064.

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

$$Y - \bar{Y} = r \frac{\sigma_Y}{\sigma_X} (X - \bar{X})$$

$$Y - 840080 = 0.275 \times \frac{377219.01}{88211.68} (X - 132168)$$

or $Y - 840080 = 1.17X - 154636.56$

or $Y = 685443.44 + 1.17X$

Table 4.18

Correlation between Account Receivable and Cash & Bank Balance (Rs. in '000')

Fiscal year	A/R (X)	C/B balance (Y)	X - \bar{X} (x)	Y - \bar{Y} (y)	x ²	y ²	xy
2006/07	124178	13755	-32137.4	-3013.4	1032812479	9080579.56	96842841.16
2007/08	80845	1917	-75470.4	-14851	5695781276	220564082	1120841099
2008/09	63657	35926	-92658.4	19157.6	8585579091	367013637.8	-1775112564
2009/10	208777	3464	52461.6	-13304	2752219475	177007059.4	-697970111
2010/11	304120	28780	147804.6	12011.6	21846199781	144278534.6	1775369733
	$\Sigma X =$ 781577	$\Sigma Y =$ 83842	$\Sigma x = 0$	$\Sigma y = 0$	$\Sigma x^2 =$ 39912592101	$\Sigma y^2 =$ 917943893	$\Sigma xy =$ 519970998

Source: Annual Report of BNL for the Relevant Year

$$= \frac{\Sigma X}{N} = \frac{781577}{5} = 156315.4$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \frac{83842}{5} = 16768.4$$

$$r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}} = \frac{519970998}{\sqrt{39912592101 \times 917943893}} = 0.086$$

The value of 'r' is 0.086 shows that there is negative correlation between receivables and cash and bank balance. But the negative correlation is not only due to chances. The test of significance negative and the value of 'r' shows either there is a significance negative correlation or not between account receivables and cash and bank balance.

$$\text{The probable error P.E. (r)} = \frac{0.6745 (1 - r^2)}{\sqrt{n}} = \frac{0.6745 \times 1 - 0.086^2}{\sqrt{5}} = 0.29$$

Questionnaire

Please answer the following questions putting a tick mark at the appropriate space or as otherwise requested in specific questions. I realize that some question may not lend themselves to short answer. However even practical information no matter how brief it is will be great value to my study.

1. Does your organization use "Cash Budget"?
Yes No
2. It "yes" how often do you prepare a cash budget?
 - a. Annually
 - b. Semi-annually
 - c. Monthly
 - d. Weekly
3. Do you have uniform terms of credit allowed to customers?
Yes No
4. What methods do you follow to forecast your cash requirements?
Please rank 5 for the highest.
 - a. Cash Budget method.
 - b. Adjusted net income method
 - c. Ratio analysis
 - d. Projected balance sheet method
 - e. Mathematical models
5. What policy does your organization follow in respect of sales?
 - a. Cash sales
 - b. Credit sales
 - c. Cash and credit sales

6. If "yes" then what is the rate of interest charged?
Please specify [] %
7. If "yes" what is the period of credit allowed to customers?
- a. net/7 days
 - b. net/15 days
 - c. net/30 days
 - d. net/60 days
 - e. net/90 days
8. Do you have a policy of charging interest on delayed payments?
Yes No
9. Does your company offer cash discount to the customers for early payment?
Yes No
10. If "yes" what is the rate of discount percent?
Please specify []
11. What is the cash collection ratio in your company?
Please specify []
12. Is there any overdue amount to the collection?
Yes No
13. If "yes" what is your opinion may be the causes of over-due amounts receivables?
- a. Customers attitudes
 - b. Problem of liquidity of the customers
 - c. Risk of losing customers
 - d. Defective system of credit collection
 - e. Any other

14. What are your suggestions to improve cash collection system?
- a. Contact on telephone
 - b. Initiate compromise
 - c. Charging higher rate of interest
 - d. Seek the health of collection agent
 - e. Any other
15. In monitoring the payment behavior of your customers which methods do you apply?
- a. Account receivable turnover
 - b. Average collection period method
 - c. Days sales out standing
 - d. Any other-under binding
16. To what extent does your company take advantage of cash discount offered by bank arrangement?
- a. Always
 - b. Rarely
 - c. Never
17. Is your company able to discharge all short term liabilities on due date?
- a. Shortages of cash
 - b. Practice
 - c. Delayed payment by customers
 - d. Decline to cash sales
 - e. Any other