

Chapter-II

Review of Literature

CHAPTER – II

REVIEW OF LITERATURE

2.1 INTRODUCTION:

In order to get the idea about the area of research it is essential to discuss the same of the studies previously undertaken in the field of co-operative sugar factories. Taking in to account the importance of sugar industry in the national economy a number of researchers have worked on various aspect of sugar industry. So the researcher has made review of literature regarding the co-operative sugar factories. He has reviewed some Ph.D. thesis. M.Phil dissertations and research articles related to the research topic.

2.2 REVIEW ON FINANCIAL PERFORMANCE:

2.2.1 Potadar (1990) – has submitted his work for M.Phil dissertation. He studied the working pattern of sugar factory and he make analysis the financial strengths weakness of sugar factory for the purpose he used ration analysis techniques. Research has observe the current and liquidity position in his factory is poor, excess stock of the finished goods and long term are decreased there is no consistency in the financial management practices and interest expenses are increased. He observed that the performance of sugar factory is increased in share capital, sugarcane crushing capacity, best recovery in sugar and consent increase in sale. He suggested that the management follow the norms of professional financial management and maintain liquidity position, operating cost of the factory.

2.2.2 Joshi (1991) – made a study on the analysis of the finances of sugar factories for his Ph.D. work. He has studied finances of eleven co-operative sugar factories in Kolhapur district. Ratios and working capital structure are used for ranking the sugar factories in Kolhapur district. He used Profitability, Liquidity, Solvency, Efficiency ratios for the study. In his study, he remarked that the financial performance of sugar co-operatives depends on two sets of factors that are internal and external factors. He also suggested that for the improvement of technical efficiency sugar factories should used modern plant,

Harvesting of sugarcane should be done strictly according to maturity dates, financial performance of sugar factories did not rest on operationally related factories. Performance results are mostly based on the attitude policies and wisdom of the factory.

2.2.3 Chandrappa (1991) - has submitted for his M.Phil dissertation in that he makes study the different forms of working capital in this factory. He examines the net and gross working capital, Efficiency of working capital. He also discussed that the net working capital position in this factory is negative i.e. increased short term loans and continuous net losses incurred by factory. The factory has not good receivable turnover ratio and its average collection period is desirable. He suggests that increasing the quantity and profitability of the factory, increases the sugar recovery, improve the crushing capacity and adopt the new technology. Researcher has concluded that the various financial techniques are used by the factory to ascertain the financial performance of the sugar factory from time to time.

2.2.4 Nanaware (1994) - on his study he focuses its attention on the pricing policy of sugarcane in private as well as co-operative sugar factories. He review the methodology of sugarcane pricing and it's policy, the role of state govt. and state intervention in determining the sugarcane pricing and it's policy, the role of state govt. and state intervention in determining the sugarcane pricing and it's policy, the comparison of the cost of production and other items of sugar industry in private and co-operative sugar factories. The researcher focused on the problem of shortage of sugarcane and decreasing the productivity of sugarcane per hectare. After his study he suggested that the sugar factories are operating in efficient manner, they are spent some amount on their area development. He also found that the recovery rate of sugar is more than 11% in both the sugar factories. He suggested that sugar factories should give fair price of sugarcane to the sugarcane producer. At state level pricing of sugarcane is made of on the minimum cane price fixed by CACP. Total sugar production, average recovery of sugar, sale price of sugar

according to that the price of sugarcane is decided, most important and relevant factors that cost of production should be controlled.

2.2.5 Patil (1994) – he studied the financial performance of the selected sugar factory. He give focused on working pattern, growth in financial condition and performance of factory. He also studies the growth and development of factory including the cane crushed, share capital, sugar production, crushing capacity, sugar recovery. He examined the financial performance of factory which is fixed assets, current assets and liabilities working capital and deposit structure, he also use the accounting ratio's. He find out the sugar production in this factory is slightly increased and there is not full utilization of crushing capacity and sugar recovery. The current assets and current liabilities are decreased and deposits structure is not efficient. He suggested that the factory are increases the more funds and working capital, increasing the tangible assets, facts reduced the cost of goods sold and sales are increased improve the production capacity and produced the byproducts.

2.2.6 Deshmukh (1995) – has studied and focused on the wage structure and salary administration of the sugar factory and management and organization aspects of the factory, the benefit provided by the sugar factory to the farmers. He also studies the historical background of the co-operative sugar factory. In his study he found that the sugar factory. In his study he found that the sugar factory have problems relating to infrastructure and raw materials, problem of labor, problems relating to the sugarcane farmers, marketing problem of sugar, managerial and organizational problems. The researcher has suggested that various sugarcane development schemes adopted all the operational areas of the Karkhana should given the loans at concessional rates to the farmers, the distribution of fertilizers to all farmers. The employees should provide to increasing scales and other allowances given to the employees. He also suggests that the all the dept. of the factory should work with co-ordination, working capital need of Karkhana should be properly estimated and make provisions.

2.2.7 Patil (1999) – has studied on the financial performance of sugar factory. He discussed on working capital pattern of sugar factories, growth of sugar factory and it's transport cost also he study the financial condition of sugar factories, the problem of availability of sugarcane and it's transport cost. He found that because of shortage of working capital the liquidity position of sugar factory is not good. In such case the factory is to bring more funds and thereby increase the working capital. He also found that the profit is not sufficient for a reasonable return on capital invested in the business, so sugar factory should reduced its capital or intangible assets should be increased.

2.2.8 Patil (2002) - has studied on co-operative sugar factory in his study he focused on the progress of this factory, examine the financial position and operational efficiency of the factory. He also studies the social-economical development schemes undertaken by this sugar factory. He briefly studied the progress of sugar factory in operating area, sugarcane crushed, sugar output, recovery rate, sugarcane price, capacity utilization and improves production and productivity. After his study he fined that the economic condition of farmer has improved, sugarcane crushing capacity continuously increases and increased sugar production. Sugarcane price also increased because of good recovery of sugar and better efficiency of factory, Increased the infrastructure facilities. He suggests that sugar factory increases the area under sugarcane cultivation, use innovative techniques in respect of water management, given incentives to the farmers for increasing the sugarcane production. The management has proper use of funds and used advanced technology to produced qualitative sugar. Thus the, overall position of sugar factory is very good and it has significant role in the process of economic development of rural area.

2.2.9 Nikam (2006) – has presented a paper on Indian's sugar industry is an attempt to find out cost trends, profitability and operational efficiency of the sugar factory. The study is made on sugar factories in Maharashtra and Uttarpradesh. The study is also attempt to compare the working of the sugar factories of different regions. He found that profitability is depending on the

availability of sugarcane and the operational efficiency is also related with profitability of sugar factory. He suggests that the sugar factories should increase the operational efficiency by making proper management of sugarcane production and its quality about sugar recovery.

2.2.10 Salunkhe (2009) – has studied on the financial performance of co-operative sugar factory. He focused on operating efficiency and financial soundness, the study of overall working and it's linkage with the financial performance. He found that factory current ratio; quick ratio is below the standard. The factory is also heavily depending on outsiders. He suggested that the factory should increase investment in current assets improve its proprietary ratio; improve its total assets turnover ratio by making full utilization of total assets.

2.3 REVIEW ON OPERATIONAL EFFICIENCY:

2.3.1 Kamat (1965) – in his Ph.D. thesis he discussed four major aspects of co-operative sugar factories namely production, financial, structure management and labor. He argued if co-operative sugar factories are to become successful they must begin from managing cultivation of sugarcane by farmers on production front, the performance of 14 co-operative sugar factories in Maharashtra had paid regard to the principles of good financial management and also to the principles of co-operation successfully reconciled them. He suggests that there is a need to develop cost consciousness in managers. A new look to the administration of finance of co-operative sugar factories. The Board of directors of co-operative sugar factories works in a peculiar way of solving grievances of individual members and interfering in the functioning of the subordinates. Development of democratic control in co-operative industrial structure is a complex process.

2.3.2 Deshmukh (1991) – in his study on Sugar Industry in Kolhapur district, he has made a comparative examines the prevailing material management practices in engineering and sugar industries. He comparatively evaluates the effectiveness of inventory control function of these two industries. The Study

of variables influencing the practice of materials management. The researcher makes some suggestions that organization of materials management Department should be established by these units. It is suggested to the sugar factories to advance planning of materials should be prepared. The purchases function should be organized on the scientific basis, that purchase department should follow the purchasing produces. The Sugar Industry should improved their material transportation system it can help them to improved their profitability and productivity.

2.3.3 Hilage (1992) – has analyzed the Warnana and Dudhganga Sugar factories for his Ph.D. thesis. He studied operational performance, member's oriented performance. In his view, the performance of sugar factories can be improved by developing sugarcane in scientific manner, providing proper attention to harvesting, greater facilities to lift irrigation, proper transportation of sugarcane and controlling diseases and pests.

2.3.4 Jadhav (1995) – has made inter firm comparison for study material cost, labour cost, overhead cost and other various cost of factories and to know the efficiency of the factories. He also focused on the measures adopted for increasing sugarcane production study the impact of that measure on sugarcane production. He also studies the cost effectiveness of two sugar factories. He found that the material productivity his higher during the research period, labour productivity of both the factories are not good and overhead productivity of both factories are not good and overhead productivity of both factories is decreasing. There is not a system of productivity management, the steps taken to further improve it. The research suggested that the productivity must be made familiar to the each and every person in the organization. The possible techniques of scientific management should be applied, improve the performance of each element of input. Workers should be motive towards the productivity, objectives, researching and development programme should be introducing.

2.3.5 Gurav (2003) - selected co-operative sugar factories, cost of production at the aggregate, measure the productivity performance in total and at various work centers. He also examines recovery performance of selected units, impact of government policy on the profitability of sugar factories. After his study he suggested that the more fluctuation in cane price should be controlled for minimization of fluctuation in the profitability. Sugar factories should produce and market effectively by products to increase the profitability and productivity. The sugar factories strictly control on various cane conversion expenses, management of sugar factories should increase the number of working days. For sugar production increases, sugar factories also should control manufacturing cost for increasing productivity. The depreciation cost should also be controlled by the sugar factories.

2.3.6 Ingale (2011) –has presented a paper on sugar industry in Maharashtra. He focused on sugar production yield and recovery contribution and role of the sugar industry in economic development assess the magnitude of production and growth of Maharashtra sugar industry. He has suggested that central government fixed fair and remunerative price of per quintal and for 4% incremental recovery rate F.R.D. will be 9.5% means recovery rate is a base of fair and remunerative price

2.3.7 Herekar (2011) – has written research article on sugar factories. In his study he focused on the problems of co-operative sugar factories in Maharashtra. The problems of corruption, lack of professional management, shortage of sugarcane, price crash, high interest burden, etc. he given remedies that are import duty on levy sugar. Government should purchase levy sugar from open market, withdrawal of ban on sugar export.

2.3.8 Shinde and Herekar (2011) – in their research paper both the researchers studied the work on evaluate experiment of leasing out CSF, operational efficiency of selected CSF during co-operative and private management period. They also identify significant difference in operational efficiency during co-operative and private management. They study the operational

efficiency by evaluating can crushed by the factor, production of sugar, crushing season, sugar recovery obtained. Utilizations of capital differently in the co-operative and private management period. After their study they find that in the private management period the production of sugar, crushing season, sugar recovery, is more than the co-operative period. So they suggest that the private management could achieve it better on account of its higher operational efficiency of sugar factories.

2.4 REVIEW ON GROWTH:

2.4.1 Kohak (1982) – in his Ph.D. thesis he studied effects of sugar factory on agriculture cultivators and on agricultural laboures. He also studied the impact of sugar factory on the development of infrastructure, social, services like education, medical facilities and capital formation employment generation in the area of operation of sugar factory from this study he concluded that because of the establishment of the sugar factory the tendency of depending solely on the cash crop like sugarcane has been increasing among the farmer which may ultimately have adverse effect on other farmers. Secondly, sugarcane requires proportionately more water compared to other crops. He also concluded that a co-operative sugar factory accelerates economic development in its area of operation only.

2.4.2 Jadhav (1989) – make a study on role of sugar co-operative factories on the rural economy of Sangli district. She focused on the study of development and growth of sugar factory. Study the social and infrastructural facilities on the land use pattern, cropping pattern and other agricultural activities, the contribution made by sugar factory in development of the region. The researcher has focused on above, because of the role of sugar factories in the rural development is important. She found that the sugar factories are given major contribution in the rural development by various agricultural development schemes, employment generation, providing education and medical facility, for improving the role of sugar factories in rural area. She given suggestions that the sugar factories should give guidance to the farmers,

they given fair price to the sugarcane also factory should give necessary financial assistance to farmers, given dividend to the members at regular period.

2.4.3 Yadhav (1995) – in his study he given focused on growth in sugarcane supply, sugar production and production of other by products of the factory. He analyses the sugar policy of the central Govt. before and after the new economic policy and study the sales proceeds in terms of Rupee value yield by the co-operative sugar factory. He found that the growth of total membership. Increasing the crushing capacity and maximum cane supply also increased the income. He observed the dual policy protected the interests of the entire cane supplying farmer. He comment that the success of co-operative sugar factory is main role in local leadership plays in develop the area. The co-operative sugar factory should decide in advance the sales policy of sugar production and according to that the required action or decision can be taken by the top management.

2.4.4 Wavare (2005) – studied in his Ph.D. thesis on structure and growth of area development programme of co-operative sugar factories in Maharashtra. In his study he worked on the various components of area development programme and its role in development. The expenditure incurred by the factory for area development, resource mobilization for development programme. He also studies the impact of area development programme on farmers. In the study he found that the co-operative sugar factories have developed area under sugarcane production. Area under sugarcane is increased due to development programme, sugar factories are established various programme for area development. After the result of study he suggests that the research and development center should be developed by each factory. The training given to the farmers about new techniques. Sugar factory should take up the scheme for promoting the good culture in factory areas.

2.5 CONCLUSION:

After the study all review of literature it is found that the various studies have been conducted related to the subject. In the changing context of economic development in co-operative sectors, the research gap has been found in assessment of financial Health of co-operative sugar factories with their changing statly with response to emerging economic development and policy reformation. So researcher is present the study on “Assessment of financial Health of co-operative sugar factories: A comparative study of Hutatma kisan Ahir Sahakari Sakhar Karkhana Ltd, Walwa and Kranti Sahakari Sakhar Karkhana Ltd. Kundal.”

2.6 THEORETICAL FREAMEWORK:

Financial statement analysis is important to boards, managers, payers, lenders, and others who make judgments about the financial health of organizations. One widely accepted method of assessing financial statements is ratio analysis, which uses data from the balance sheet and income statement to produce values that have easily interpreted financial meaning. Most hospitals, health systems and other healthcare organizations routinely evaluate their financial condition by calculating various ratios and comparing the values to those for previous periods, looking for differences that could indicate a meaningful change in financial condition. Many healthcare organizations also compare their own ratio values to those for similar organizations, looking for differences that could indicate weaknesses or opportunities for improvement. To examine the financial health of a firm the financial executive needs certain yardsticks. The yardstick frequently used is ratio analysis. The construction of ratio is a major analytical statements expressed for the financial performance of firm. The use of ratio aids the financial manager and other analysts in pointing out the relative importance of the various items appearing in the financial statements. By using ratio comparisons with financial statements or other companies are facilitated and comparison of company's financial performance can too be made over a period of time.

2.7 RATIO ANALYSIS:

Ratio is simply a method of highlighting in arithmetical terms the relationship between figures drawn from various financial statements.

1] “The term accounting ratio is used to describe significant relationships which exist between figures shown in a balance sheet, in a profit and loss account, in a budgetary control system or in any other part of the accounting organization.” (Kishore Ravi M. 2007)

2] “A ratio is a quotient of two numbers and the relation expressed between two accounting figures is known as accounting ratio” (Prasanna Chandra 2010).

3] “The relationship between the two figures expressed mathematically is called ratio.” (Prasanna Chandra 2010)

4] “Ratio analysis means one number expressed in terms of another.”

The accounting ratios indicate a quantitative relationship which is used for analysis and decision making. It provides basis for inter-firm as well as intra firm comparison. The ratio will be effective only when they are compared with ratios of base period or with which working capital is being used in the enterprise some ratio indicate the trend or progress or downfall of the company. It helps the financial manager in evaluating the financial position and performance of the company with the help ratio analysis financial executive can measure whether the company is at present financially healthy or not.

2.8 CLASSIFICATION OF RATIOS:

Ratio may be classified into the four categories as follows:

1) **Liquidity Ratios:** Current Ratio, Quick Ratio or Acid Test Ratio and Absolute Liquid or Super Quick Ratio.

2) **Solvency Ratios:** Debt Equity Ratio, Shareholder Equity Ratio, Debt to Net worth Ratio, Capital Gearing Ratio, Fixed Assets to Long-term Fund Ratio and Proprietary Ratio.

3) Profitability Ratios: Gross Profit Margin Ratio, Net Profit Margin Ratio, Earnings per share Ratio, Return on Assets Ratio and Return on Capital Employed Ratio.

4) Operational Efficiency Ratios: Material Cost Ratio, Labour Cost Ratio, Factory Overhead Ratio, Administrative Overhead Ratio and Selling and Distribution Expenses Ratio

2.8.1 Liquidity Ratios:

“The liquidity ratios measure the liquidity of the firm and its ability to meet its maturing short term obligations. Liquidity is defined as the ability to realize value in money the most liquid of assets. It refers to the ability to pay in cash, the obligations they are due”(Khan M. Y. and Jain P. K.2006).

The corporate liquidity has two dimensions viz. quantitative and qualitative concepts. The quantitative aspect includes the quantum structure and utilization of liquid assets and in the qualitative aspect it is the ability to meet all present and potential demands on cash from any source in a manner that minimizes cost and maximizes the value of the firm. Thus corporate liquidity is a vital factor in business.

1) Current Ratio:

This ratio measures the solvency of the company in the short term Current assets are those assets which can be converted into cash within a year. Current liabilities and provisions are those liabilities that are payable within a year. This is the ratio of the Current assets to the Current liabilities of a business at any time.

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

A current ratio of 2:1 indicates a highly solve position. The constituents of the current assets are as important as the current assets themselves for evaluate will have adverse impact on the profitability of the organization. A high current ratio may be due to the piling up of inventory, inefficiency in

collection of debtors high balances in cash and bank account without proper investment etc.

2) Quick/ Acid test Ratio:

Quick ratio is used as a measure of the company's ability to meet its current obligations. This is the ratio of liquid assets to current liabilities. Quick assets are the total of current assets except inventories and Quick Liquidities are those liabilities of current liabilities except Bank Overdraft.

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

A quick ratio of 1:1 indicates highly solvent position. This ratio serves as supplement to the current ratio in analyzing liquidity. This ratio is also known as Acid Test Ratio. This ratio is of great importance for bank and financial institutions.

3) Absolute Liquid/ Super Quick Ratio:

It is the ratio of absolute liquid assets to quick liabilities. However for calculation purpose it is taken as ratio of absolute liquid assets to current liabilities. Absolute liquid assets include cash in hand, cash at bank and term or temporary investments.

$$\text{Cash Ratio} = \frac{\text{Absolute Liquid Assets}}{\text{Current Liabilities}}$$

Absolute Liquid Assets = Cash in hand + Cash at bank + Short term Investments

The ideal absolute liquid ratio is taken as 1:2. It means Rs. 1 liquid assets are considered adequate to pay Rs. 2 of current liabilities as all the creditors are not expected to demand cash, at the same time and cash may be realized, at least something from debtors and inventories too.

2.8.2 Solvency Ratios:

"Solvency means the ability of the company to meet its long term liabilities. The long term financial stability of the firm may be considered as dependent upon its ability to meet all its liabilities including those not currently payable" (Chakraborty H. and Chakraborty S. 1997).

The ratios which are important in measuring the financial solvency of the company. This ratio is studied to measure the long term solvency of the organization.

1) Debt- Equity Ratio:

This ratio indicates the relationship between loan funds and net worth of the company. This is known as gearing. If the proportion of debt to equity is low, a company is said to be low-gearred and vice versa. A debt –equity ratio of 3:1 may be permitted for highly capital intensive industries like petro chemical fertilizers, power etc. The higher gearing the more volatile the return to the shareholders.

$$\text{Debt to Equity Ratio} = \frac{\text{Long – term Debt}}{\text{Shareholders Funds}}$$

Generally 1:1 ratio is acceptable the purpose of this ratio is to derive an idea of the amount of capital supplied by the owners and of assets ‘cushion’ available to creditors on concern. It is measure of financial strength of a concern. Lower the ratio greater is the security available to creditors.

The term long term debt includes all debts, i.e. long term, short-term, mortgages, bills, debentures, etc. Whereas the term net worth means equity, share capital preference share capital, reserves and surplus.

2) Shareholders Equity Ratio:

This ratio establishes the relationship between proprietor’s funds and total assets. This ratio is also called as proprietary ratio.

$$\text{Shareholders Equity Ratio} = \frac{\text{Shareholders Equity}}{\text{Total Assets}}$$

It is assumed that larger the proportion of the shareholders equity the stronger is the financial position of the firm. This ratio will supplement the debt-equity ratio. In this ratio the relationship is established between the shareholders funds and the total assets shareholders funds represent equity and preference capital plus reserves and surplus less accumulated losses. This ratio is normally a test of strength of credit worthiness of the concern. To the extent the percentage of liabilities increase or the percentage of capital decreased the

credit strength of the concern deteriorates. A low proprietary ratio on the other hand is a symptom of under- capitalization and an excessive use of creditors' funds to finance the business.

3) Debt to Net worth Ratio:

This ratio is calculated as follows:

$$\text{Debt to Net Worth Ratio} = \frac{\text{Long-term Debt}}{\text{Shareholders Net Worth}}$$

This ratio compares long-term debt to the net worth of the firm i.e. the capital and free reserves less intangible assets. This ratio is finer than the debt-equity ratio and includes capital which is invested in fictitious assets like deferred expenditure and carried forward losses. This ratio would be of more interest to the contributors of long- term finance to the firm as the ratio gives a factual idea of the assets available to meet the long term liabilities.

4) Capital Gearing Ratio:

The proportion of the equity share capital to the total capital of the concern is known as gear ratio, According to. J. Batty, "relation of ordinary share to preference share capital and loan is described as capital gearing." Equity capital means share capital plus undistributed profit items.

$$\text{Capital Gearing Ratio} = \frac{\text{Equity Shareholders Funds}}{\text{Fixed Interest Bearing Funds}}$$

The fixed interest bearing funds include debentures, long-term loans and preference share capital. The equity shareholders funds include equity share capital, reserves and surplus capital gearing ratio indicates the degree of vulnerability of earnings available for equity shareholders. This ratio signals the firm which is operating on trading on equity. It also shareholders by charging the levels of fixed interest bearing funds in the organization. Low gearing indicates that the equity share capital is not paid an adequate return because the profits are swallowed up by the high fixed charges in the form of interest and dividends.

5) Fixed Assets to Long Term Fund Ratio:

The fixed asset is shown as a proportion to long- term funds as follows:

$$\text{Fixed Assets to long term Fund Ratio} = \frac{\text{Fixed Assets}}{\text{Long – term Debt}}$$

This ratio indicates the proportion of long term funds deployed in fixed assets. A fixed asset represents the gross fixed assets minus depreciation provided on this till the date of calculation. Long term Funds include share capital, reserves and surplus and long-term loans. The higher the ratio indicated the safer the funds available in case of liquidation. It also indicates the proportion of long-term funds that is invested in working capital.

6) Proprietary Ratio:

It expresses the relationship between shareholders net worth and total assets. Ratio of tangible net worth to total assets is also called as proprietary ratio or capital to total assets ratio.

$$\text{Proprietary Ratio} = \frac{\text{Shareholders Net Worth}}{\text{Total Assets}}$$

Net worth = Equity Share Capital + Preference Share Capital + Reserves-
Fictitious Assets

Total Assets= Fixed Assets + Current Assets- Fictitious Assets.

Reserves earmarked specifically for a particular purpose should not be included in indicative of strong financial position of the business the higher the ratio the better it is. This ratio is normally a test of strength of credit-worthiness of the concern. A low proprietary ratio on the other hand is a symptom of under-capitalization and an excessive use of creditor's funds to finance the business.

2.8.3 Profitability Ratio:

The purpose of study and analysis of profitability ratios are to help assessing the adequacy of profits earned by the company and also to discover whether profitability is increasing or declining. "The profitability of the firm is the net result of a large number of policies and decisions. The profitability ratios show the combined effects of liquidity, assets management and debt management on operating results' profitability ratio are measured with reference to sales capital employed, total assets employed, shareholders funds etc."

1) Gross Profit Margin Ratio:

This ratio reflects the efficiency with which the management produces each unit of product. The gross profit margin is calculated as follows:

$$\text{Gross Profit Margin Ratio} = \frac{\text{Sales} - \text{Cost of goods sold}}{\text{Sales}}$$

or

$$\text{Gross Profit Margin Ratio} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

The ratio measures the gross profit margin on the total net sales made by the company. The gross profit represents the excess of sales preceded by four taking into account administration, selling and distribution and financing charges.

A high gross profit ratio as compared to other companies the firm produces its products at lower cost. It is a sign of good measurement. A low gross profit ratio may indicate unfavorable purchasing and makeup policies the inability of management to develop sales volume. The ratio measures the efficiency of the company's operations and this can also be compared with the previous year results to ascertain the efficiency. The gross profit margin may be compared with that of competitors in the industry to assess the operational performance relative to the other players in the industry.

2) Net Profit Margin Ratio:

Net profit margin is that proportion of net profit which remains to the owners or the shareholders after all cost, charges and expenses including income tax have been deducted. This ratio is designed to focus attention on the net profit margin arising from business operations after interest and tax is deducted.

The ratio is calculated as follows:

$$\text{Net Profit Margin Ratio} = \frac{\text{Net Profit (after tax)}}{\text{Net Sales}} \times 100$$

It differs from the ratio of operating profits to net sales in as much as it is calculated after adding non-operating incomes like interest, dividend on investment etc. to operating profits and deducting non-operating expenses such as loss on sale of old assets, provisions for legal damages etc. from such

profits. This ratio reflects all expenses after deducting interest and taxation. This ratio measures the efficiency of operation of the company. The net profit is arrived from gross profit after deducting administration, selling and distribution expenses.

This ratio is widely used as a measure of overall profitability and is very useful to the proprietors reading along with the operating ratio is given an idea of the efficiency as well as profitability of the business to a limited extent.

3) Earnings per Share Ratio:

The objective of financial management is wealth or value maximization of a corporate entity. The value is maximized when market price of equity shares is maximized. The use of wealth maximization objective or net present value maximization objective has been advocated as an appropriate and operationally feasible criterion to choose among the alternative financial actions. In practice the performance of a corporation is better judged in terms of its earnings per share (EPS). The EPS is one of the important measures of economic performance of a corporate entity. The flow of capital to the companies under the present imperfect capital market conditions would be made on the evaluation of EPS. Investors lacking inside and detailed information would look upon the EPS as the best base to take their investment decisions. A higher EPS means better capital productivity.

$$\text{Earning Per Share Ratio} = \frac{\text{Net Profit after tax \& pref. dividend}}{\text{No. of Equity Shares}}$$

EPS is one of the most important ratios which measures the net profit earned per share. EPS is one of the major factors affecting the dividend policy of the firm and the market prices of the company. Growth in EPS is more relevant for pricing of shares from absolute EPS. A steady growth in EPS year after year indicates a good track of profitability.

4) Return on Assets Ratio:

This is the ratio of Net Profit after Tax and total assets of the business. This ratio shows how efficiently business. This ratio shows how efficiently business utilized their assets to earn the profit.

This ratio is calculated as follows:

$$\text{Return on Assets Ratio} = \frac{\text{Net Profit (after tax)}}{\text{Total Assets}}$$

The profitability of the firm is measured assets by establishing relation of net profit with the total assets of the organization. This ratio indicates the efficiency of utilization of assets in generating revenue. This ratio is a measure of the return on the total resources of the business enterprise. It shows how efficiently management has used the funds provide by the creditors and the owners. The ratio can be very well used for inter firm and intern-industry comparison which will reflect the relative efficiency.

5) Return on Capital Employed Ratio:

This ratio is also called as return on investment (ROI). The strategic aim of a business enterprise is to earn a return on capital. If in any particular case, the return in the long-run is not satisfactory then the deficiency should be corrected or the activity be abandoned for a more favorable one measuring the historical performance of an investment center calls for a comparison of the profit that has been earned with capital employed. The rate of return on investment is determined by dividing net profit or income by the capital employed or investment made to achieve that profit.

$$\text{Return on Capital Employed Ratio} = \frac{\text{Net Profit}}{\text{Capital Employed}}$$

Return on investment analysis provides a strong incentive for optimal utilization of the assets of the company. This encourages managers to obtain assets that will provide a satisfactory return on investment and to dispose of assets that are not providing on acceptable return. This return on capital employed ratio is useful in measuring the managerial performance in the following ways:

- It helps in measuring the profitability of the firm.
- The actual return on capital employed can be compared with the targeted Rate of Return.
- It indicates how effectively the operating assets are used in earning return.
- It can be used as a sensitive gauge of profit making ability of the firm.

- IT focus the attention on efficiency of management in managing the investments made into business.

2.8.4 Operational Efficiency Ratios:

Operational Efficiency Ratios can be used to help measure the effectiveness over cost control and indirect operating managers to monitor trends and identify problem. If a significant change occurs the problem must be identified as either internal (Such as since investors and other outsiders don't have access to operating information, operating ratio are rarely used outside the organization.

"The ratios of all operating expenses (i.e. materials used, labour to sales is the operating ratio. A comparison of the operating ratio would indicate whether the cost context is high or low in the figure of sales. If the annual comparison shows that the sales has increased the management would be naturally interested and concerned to know as to which elements of the cost has gone up. If the operating ratio has fallen, through the unit position need analysis as it may be the sum total of efficiency in certain departments and inefficiency in other. Generally all these ratios are expressed in terms of percentage."

1) Material Cost Ratio:

This ratio show the proportion of the total material consumed cost and the sales of the particular year. This ratio helps in the control material cost if there is material cost excess it can be controlled by the management for increased in the profitability.

This ratio is calculated as follows.

$$\text{Material Cost Ratio} = \frac{\text{Material Consumed}}{\text{Sales}} \times 100$$

Material consumed= Opening Stock + Purchase- Closing Stock

2) Labour Cost Ratio:

Labour is also one of the important elements of the production. Labour cost is also affect the operating efficiency of the business organization so the labour cost should be controlled by the management labour cost ratio is calculated by following formula.

$$\text{Labour Cost Ratio} = \frac{\text{Labour Expenses}}{\text{Sales}} \times 100$$

3) Administrative Expenses Ratio:

Administrative expenses are not directly related to the process of the production they are expenses which are incurred in the office or management of the business organization. These expenses are indirectly related with the production of the factory. The administrative expenses process but they are included in the cost of the product so these expenses should be controlled.

$$\text{Administrative Expense Ratio} = \frac{\text{Administrative Expenses}}{\text{Sales}} \times 100$$

4) Selling and Distribution Expenses Ratio:

Selling and distribution expenses are those expenses which are incurred for the product sold out in the market. These expenses are helped in the increases in the sales of the product. These selling and distribution expenses are helped in the increases in the operational efficiency of the business organization.

$$\text{Selling \& Distribution Expense Ratio} = \frac{\text{Selling \& Distribution Expenses}}{\text{Sales}} \times 100$$

2.9 GROWTH OF SUGAR FACTORIES:

The sugar factories growth are shown by using various parameters which important in the progress of the sugar factories. The growth in these parameters is shown by comparing the last few years. These parameters are the indicators of the development of the sugar factory.

The various parameters are used for showing the growths are as follows:

1) Share Capital:

Share capital is the owner capital of any business organization and it is very important for the establishment of the business. The share capital is divided in different sub-heading like authorized capital, issued capital, Paid up capital, reserved capital. The share capital is used for the establishment of the business and purchasing a fixed asset of the organization. The share capital is also

important in the sugar factory because the sugar industry is required large amount of capital for the establishment. This is acquired by the issue of share capital. The growth in the share capital of a sugar factory is shown as compared to the last year. The growth in the share capital shows the increasing the capacity of the sugar factory year by year.

2) Sales:

An increase in sales is the main indicator of the growth in any business, because if sales are increased. In the sugar factory the sale of sugar is the main indicator of increasing the performance of sugar factory. If the sales of sugar factory are also increased. The growth of sales are shown by making comparison of last same years, as compared to last year what is change is happened in the sales is shows the growth in the sales. In the sugar factory the sales of sugar is two types controlled price sugar sales and sales of sugar in open market.

3) Working Capital:

Working capital is the life blood of any business organization. The working capital is required for the day to day activities of the business. If there is shortage in the working capital than business cannot for further period. In the sugar factory the working capital is very important because the sugar factory are required large amount of working capital for purchase of sugar cane, transport cost of sugar cane, wages of sugarcane others and also other regular expenses. The growth in the working capital shows the ability of a business to work with efficiency. Growth in working capital is also calculated by make comparison of last same years.

4) Profit:

Profit is the main indicator of financial performance of business. If the business earned good profit than that business is called as good financial stable business. Every business is worked for earning maximum profit. This is the main objective of any business firm. The profit is that amount which is distributed as dividend to the shareholders of the business. If growth in the profit is down regularly than that business can work without any financial

problem. The growth in the profit is shown by comparing current year's profit with last year's profit.

5) Long term Investment:

The investment is the amount which is a part of profit which is invested outside the business. The large investment of any business can help in the given financial stability to that business. The investment is not a operational activity of business firm but it is helped business for its long period survival in the market. Sugar factories are also made investments in the govt. securities investment in other banks share capital. The growth in the investment is one of indicator of financial performance of sugar factory.

2.10 CONCLUSION:

Financial ratio analysis is the calculation and comparison of ratios which are derived from the information in a company's financial statements. The level and historical trends of these ratios can be used to make inferences about a company's financial condition, its operations and attractiveness as an investment. After preparation of the financial statements, one may be interested in knowing the position of an enterprise from different points of view. This can be done by analyzing the financial statement with the help of different tools of analysis such as ratio analysis. Here I have done financial analysis by ratios. In this process, a meaningful relationship is established between two or more accounting figures for comparison.

Financial ratios are calculated from one or more pieces of information from a company's financial statements. For example, the "gross margin" is the gross profit from operations divided by the total sales or revenues of a company, expressed in percentage terms. In isolation, a financial ratio is a useless piece of information. In context, however, a financial ratio can give a financial analyst an excellent picture of a company's situation and the trends that are developing.

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