

FINANCIAL EVALUATION OF CATTLE FEED PLANTS OF MARKFED UNDER CO-OPERATIVE SECTOR IN PUNJAB A COMPARATIVE STUDY

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ABSTRACT

The comparative financial analysis helps the analyst to compare financial Performance-- the performance of one firm with that of other similar firm in the industry and also compares the performance of the competitors in the line. This comparison helps to find out the strength or weakness of a firm along with the opportunity or threats in the external environment. Current study involves the comparative financial analysis of the Cattle feed plants on the basis of financial statements of two manufacturing units of 'The Punjab State Co-operative Supply and Marketing Federation Limited' (Popularly known as Markfed), one plant is situated at Kapurthala district of Punjab (Kapurthala Plant) and other is situated at Gidderbaha district of Punjab (Gidderbaha Plant) under the co-operative sector.

Keywords: *Financial Evaluation, Markfed, Co-Operative Sector, Socialistic System, Democracy.*

Introduction

"Cooperatives" is a system constituted voluntarily to meet the common economic, social and cultural needs and aspirations of the members through a jointly-owned and democratically controlled enterprise. In India, the socialistic system as enshrined in the constitution of India is based on the ideals of democracy and socialism. Only a movement of cooperative can fulfill the need of such an economic and social fabric. The Government of India started co-operative movement in India in 1904 with purpose of freeing the farmers from the group of money lenders and this movement proved to be a boom for the social and economic development of entire country. The cooperative movement has enhanced every aspect of human beings and is directed towards welfare of mankind.

Cooperatives around the world operate according to the same set of core principles and values, these principles are as follows:

- Voluntary and Open Membership:
- Democratic Member Control:
- Members' Economic Participation:
- Autonomy and Independence:
- Education, Training, and Information:
- Cooperation Among Cooperatives:
- Concern for Community:

Brief Introduction to Co-operative in Punjab

The cooperative movement in Punjab contributed heavily to the agricultural development as the first step and this resulted in the green revolution due to which Punjab was crowned as the grain bowl of the country. Cooperatives have played a vital role in improving the economic conditions of farmers and accelerating the pace of development in Punjab. Cooperative principles ensure harmonious development, through democratic management and governance. Cooperatives have brought both the services and resources at the doorsteps of villagers in Punjab. These have been enthusiastically serving the people of Punjab in areas such as agriculture, housing, sugar production and dairy etc.

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The performance of Cooperative Movement in Punjab is very impressive. Cooperatives constitute the major source of institutional credit for agriculture. Cooperatives are playing a pivotal role in socio-economic development of the State. These are key instruments of the State to develop and sustain its rural economy, which is primarily agrarian. The Department of Cooperation has accelerated Cooperative movement in Punjab.

Structure and Function of Markfed

The MARKFED is an Apex Co-operative Marketing Federation of Punjab and is the largest marketing co-operative in Asia. It was set up in 1954. MARKFED provides innumerable services to the farmers in terms of procurement, storage, processing and marketing of agricultural produce, formulation of high quality agrochemicals, soil and water sample testing through mobile laboratories for optimum use of fertilizers to increase farm productivity and processing and marketing of high quality edible products like basmati rice, canned products etc. in domestic and international markets. Products marketed by the federation include--Canned products, Bottled products, Agro chemicals, Edible/Refined oils, Animal feeds and Rice. MARKFED has been declared as the nodal agency of Punjab for the exports of fruits, vegetables and food grains by the Government of India. MARKFED has also been awarded National Productivity Awards in various fields like co-operative marketing activities, food processing, cattle feed production etc.

Markfed is Asia's biggest co-operative venture, which helps the farmers in the marketing of their products through primary co-operative societies. Apart from providing quality fertilizers, pesticides and insecticides to farmers, Markfed also sells cattle feed manufactured by its own two units (situated at Gidderbaha and Kapurthala) through its network of own branches, PACS and dealers.

Brief profile of Cattlefeed Manufacturing Units of Markfed

The industrial cooperative societies have also made unique contribution in the cooperative movement and have helped in the production of necessary goods. Markfed manufactures cattle feed at its plant at Gidderbaha and Kapurthala which have a combined production capacity of 300 TPD. Animal feed manufactured here is popular in Punjab, Haryana, H.P, J&K, Rajasthan and Delhi and is sold through own branches, dealers and other co-operative societies.

Markfed supplies Cattlefeed through:

- Markfed Branch Offices
- Co-operative Marketing Societies & Primary Agricultural Cooperative Societies
- Dealers
- Institutions: HIMFED, H.P. MILKFED, Haryana Milk Union

Objective of Markfed

The objectives of Markfed includes arranging for procuring, marketing/trading, processing/manufacturing of agricultural products as well as byproducts of its affiliated members & their members to their best advantage within the country & outside the country.

Mission of Markfed

Markfed walks on the live policy of national development and provides new opportunities that lead to higher quality and remunerative price. The cooperative philosophy, principles of brotherhood, help to farmers, latest modern technical know-how, research and development have given wide acclaim to Markfed.

Review of Literature

Various researches under the following research titles were conducted in financial performance area in co-operative sector in industry like sugar mills, co-operative wholesale stores, dairy federations etc.

Rao (Year 2004) in their study, analyzed the financial performance of sugar mills under public, private and co-operative sectors in Tamil Nadu. The study was based on secondary data covering a period of ten years from 1993-94 to 2002-03. It was found that the public sector sugar mill showed a more consistent financial health as compared to sugar mills of other two sectors, whereas the private sector mill showed a consistent lesser financial health compared to other two sectors. The data was examined through multiple discriminant analysis, namely, Altman Z-score analysis.

Rajarajan and Vijayarani (Year 2009) in their study based on secondary data covering a period of ten years from 1995-96 to 2004-05 revealed that there was increase in number of stores, number of members, share capital, reserves, working capital and number of stores earning profits but

purchases and sales fluctuated and a large number of stores though reduced, but still suffered losses during the study period. The study suggested measures for improvement of consumer co-operatives wholesale stores like improvement in quality of products, further increase in membership, proper budgetary control system to reduce operational expenses, providing monetary incentives to employees to motivate them, proper government financial support, training programmes for staff and members, etc.

Niti Sharma (Year 2012) conducted a study with the primary objective to study the whole concepts and methods being followed in Markfed in the preparation of the Financial Statement of Markfed and concluded that Markfed should pay more attention towards increasing the profits by maintaining favourable Debt Equity Ratio and by taking effective steps in relation to Huge receivables in the Balance sheet. Other than accounting part, this study also gave an overall view of the Markfed. It focused on the consolidation of balance sheets of all the units of Markfed and its financial analysis. Financial ratio, Common size financial statements, Comparative statements and Trend analysis are used in this study. It also checked the compliance or non-compliance of accounting standards.

Dr. Kanwardeep Singh (Year 2008) study's main objective was to examine the financial evaluation of Punjab state co-operative sugar mills. To achieve this objective, different financial ratios were used. It was concluded that the financial health of all co-operative Sugar Mills were not in good condition. The need of hour was to transfer the sugar industry from single product industry to multi-product industry by setting up auxiliary industries based on co-products of sugar industry in one complex so that industry can take full advantage of its co-products.

Dr. Kanwardeep Singh (year 2014) mentioned in the thesis that the main objective of the study was to identify the performance indicators, to measure the performance on selected indicators and to make the comparison of both the dairy co-operatives federations in Punjab and Haryana States. To achieve the said objectives, the different statistical and financial tools were used i.e. mean, standard deviation, co-efficient of variation, compounded average growth rate, t-test, ARIMA and BROWN models, financial ratios, bar diagrams, tables etc. It was concluded that the performance of Milkfed, Punjab came out to be considerably better as compared to Dairyfed in Haryana.

Need of Study

While reviewing the literature, it was found that while research is conducted on units like banks/ Sugar mills etc under the cooperative sector, no such study is done with respect to comparative study of the financial position of the cattle feed plants in co-operative sector particularly in Punjab. This study is undertaken to analyze and understand the financial results of the cattle feed manufacturing plant run in Punjab under the co-operative sector owned by Markfed, which gives mean exposure to practical implication of theory knowledge. This study will help:

- To understand the financial position of the cattle feed plants in Punjab.
- To know about the company financials using various financial techniques.
- To know how the company gets funds from various resources.
- To analyze the short term financial performance of both the plants with the help of liquidity ratio.
- To give an indication of financial position which will help the plant to take a correct decision on investment.

Scope of Study

The study will help to analyze the financial performance of two cattle feed plants under cooperative sector. These two plants are owned by Markfed and are operating in the state of Punjab. Name of the plant situated at Kapurthala district is Markfed Cattle Feed & Allied Industries, Kapurthala and that of plant situated at Gidderbaha District is Markfed Cattle Feed Plant, Gidderbaha. The time period is taken from the 2010-2017 comprising of 7 financial years.

Objective of Study

The primary objective of present study is to comparatively examine the financial evaluations of cattle feed plant in Markfed. Some of the secondary objectives for the achievement of the primary objective is as under:

- To analyse and evaluate financial performances of cattle feed plants of Markfed
- To compare the financial performance of both the cattle feed plants in Markfed on the basis of measured performance.
- To suggest suitable measures for improvement in financial performance of cattle feed plants in Markfed.

Sources of Data

Both primary and secondary data are used in this study but main focus is on secondary data.

Primary Source of Data

Primary data is data that is collected by a researcher from first-hand sources, using methods like surveys, interviews, or experiments. Only minuscule primary data is collected by interacting with the General Managers of both the plant regarding the sale mix of cattle feed sold by both the plants.

Secondary Source of Data

Secondary data is data gathered from studies, surveys, or experiments that have been run by other people or for other research. Typically, a researcher will begin a project by working with secondary data. This allows time to formulate questions and gain an understanding of the issues being dealt with before the more costly and time consuming operation of collecting primary data. Data gleaned both from published papers and unpublished research notes would be secondary data. Although it isn't primary data, it could give you invaluable information nonetheless. If you decided to go on to collect primary data, the secondary data would give you what information you need to know where to begin.

The present study is mainly conducted on the basis of financial data from published records and other books & reports. Secondary data consist of information that already exists with the institutions or from outside sources. Secondary data provides for a starting point of the research and offer the advantage of low cost and easy accessibility. Secondary data for the present study is collected from the following sources:

- Published financial statements of both the plants.
- Annual reports.
- Monthly Performance Reports
- Annual Budgets
- Other relevant reports and books of accounts of the Markfed plants.

Financial & Statistical Technique used

To achieve the objective of the study as mentioned previously, we use financial tools like financial indicator in absolute term, common size balance sheet & income statement, cash flow analysis, fund flow analysis, Cost – Volume Profit (CVP) analysis and analysis through various types of ratios (profitability ratio, liquidity ratio, activity ratio, insolvency ratio). Apart from above, some statistical tools like mean and standard deviation are also used for the analysis of data. Standard Deviation is a measure of how spreads out numbers are. Standard deviation is a statistical term that measures the amount of variability or dispersion around an average. Standard deviation is also a measure of volatility. Generally speaking, dispersion is the difference between the actual value and the average value. The larger this dispersion or variability is, the higher the standard deviation. The smaller this dispersion or variability is, the lower the standard deviation. To calculate the standard deviation of those numbers:

- Work out the Mean (the simple average of the numbers)
- Then for each number: subtract the Mean and square the result
- Then work out the mean of those squared differences.
- Take the square root of that and we are done!

For the purpose of calculation, excel function in MS-Excel is used for both mean and standard deviation. Graphs & Charts are also prepared using MS-Excel.

Financial Statement

A financial statement is a numerical report covering financial information to express the financial results and financial condition of the concern. Some of the definitions by renowned experts are as under:

- According to John Myer, the term financial statement refers to the two statements, which the accountant prepares at the end of the period for a business enterprise. They are the balance sheet or statement of financial position and the income statement or profit and loss statement.
- According to Kohler, financial statements are those statements, which show both the performance and the financial position. They include balance sheet, income statement, fund statement or any supporting statement or other presentation of financial data derived from accounting records.

- According to J.J. Hampton, a financial statement is an organised collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. It may show a position at a moment of time as in the case of a balance sheet, or may reveal a series of activities over a given period of time, as in the case of an income statement.
- According to AICPA (American Institute of Certified Public Accountants), financial statements reflect a combination of recorded facts, accounting principles and personal Judgements.
- According to Smith and Ashburne, the financial statement is the end product of financial accounting, prepared by the accountant of an enterprise, the result of its represents financial position, and analysis of worked has been done with earnings.

From the above definitions, it is concluded that the components of financial statements are:

- Income Statement: It shows financial results of a business.
- Balance Sheet: It shows financial position of a business at a particular moment of time. It represents proprietors' fund, liabilities to outsiders & investment in all assets.
- Statement of Retained Earnings: It shows appropriation and distribution of earnings.
- Statement of Changes in Financial Position: It shows the movement of working capital or cash or financial position for a better understanding of the affairs of the business.

Thus financial statements are prepared for presenting a periodical review or report on the progress by the management and deal with (i) the status of investments in the business and (ii) the results achieved during the period under review.

Financial Analysis

The financial analysis of companies is usually undertaken so that investors, creditors, and other stakeholders can make decisions about those companies. Financial analysis is the selection, evaluation and interpretation of financial data, along with other pertinent information, to assist in investment and financial decision-making. Financial analysis may be used internally to evaluate issues like employee performance, operating efficiency, credit policies and extremely to evaluate potential investments and credit-worthiness of borrowers, among other things.

The analyst draws the financial data needed in financial analysis from many sources. The primary source is the data provided by the company itself in its annual report and required disclosures. The annual report comprises of balance sheet, income statement, the statement of cash flows as well as footnotes to these statements. The goal of financial analysis is to assess the performance of a firm in the context of its stated goals and strategy.

Accounting is the language of business. It is the vehicle for communicating financial information about a company to many different groups of people: managers, owners, creditors, investors, customers, suppliers, government agencies, economists and others. Each of these groups may have different uses for the information. Owners are concerned that the company produce a profit and increase their wealth. Creditors want to know that the company is liquid enough to make debt payments and solvent enough to repay the loan principle if the business fails. Managers want to be compensated for their work and have confidence that their employer will provide job security. Customers and suppliers want to benefit from the ongoing business relationships. The Government wants to ensure the public good, by collecting taxes and improving financial reporting. All these stakeholders can benefit and achieve their objectives if they have good accounting information

Limitations of What the Financial Statements of Kapurthala Plant and Gidderbaha Plant Don't Tell Us

The financial statements provide a great deal of information about a company, but there is still more that we may want to know. The financial scams in the recent past have brought more attention to what the statements don't tell us. In particular, the focus has shifted to a company's off-balance sheet liabilities. Off-balance sheet financing are methods used to finance a company without showing debt on the face of the balance sheet. Fortunately, there has been a significant changes in the accounting standards in the recent years that bring many of the formerly off-balance sheet liabilities at least in the notes to accounts or disclosures.

Financial statement is prepared with the object of presenting a periodical report on the progress by management and deal with the status and result of the business. But these objectives are not fulfilled due to following limitations:

- Financial statement is essentially interim report. This report is mostly dependent on estimated facts and on inaccurate information because expenses and incomes are allocated between different periods based on inappropriate base, assets are amortised over a period of estimated life. The exact position can be shown only when the business is closed down.
This problem may be solved if the time of going concern is divided in suitable accounting period according to accounting period concept and capital expenditure / income; revenue expenditure/income is identified and suitably matched. Then financial statement will disclose the real position.
- It shows many contingent assets and liabilities and fictitious assets, which have no realisable value. Beside this, the disclosed value of assets is not realisable value or replacement value. So the financial statement does not disclose the real position of the concern.
This problem may be solved if assets and liabilities are revalued from time to time, efficient valuer makes valuation, fictitious assets are written off against retained earnings, contingent items are valued from past experience.
- Balance Sheet is considered to a static document and it reflects the position of the concern at a moment of time. The real position of the concern may be changing day to day. As a result, there is possibility of window-dressing in the Balance Sheet.
- Financial Statement may not be realistic and reliable because of the fact that it is based on certain concepts & conventions, which are not at all sound and realistic. For example, according to conservatism convention probable losses are ignored so it cannot disclose true position.
This problem can be overcome if all the concepts and conventions are balanced and if contradictions among them are eliminated and if emphasised is given on that convention which are suitable for the concern.
- It shows the financial items that have taken place during a period at historical cost. It also includes the effect of transactions of the previous periods. Such historical statement can never be 100% helpful for future planning. This problem can be solved by the inflation accounting, which may disclose the effect of change in price and current position.
- The analysis based on single year's statement will not be very much useful. For this purpose comparative analysis, common size analysis, trend analysis is necessary.
- If different methods of accounting are followed by different concerns under same industry, then it is difficult to compare the position. This problem may be solved by application of uniform costing and uniform accounting system.
- It discloses only recorded monetary fact. But, non-monetary facts (such as quality of product, efficiency of labour, industrial relation etc.) which have great effect on financial position are not shown here. At present, by quality control technique, value added analysis these problems are trying to minimise).
- The financial statement is influenced by personal judgement of accounting personnel. For example, accountant selects methods of depreciation, methods of valuation of stock etc. So this statement cannot be blindly relied upon. The soundness of such judgement will depend upon accountant's or manager's competence. At present, this problem is solved by the guidelines of accounting standard, which helps in comparative analysis.
- The most important asset of the business is human resource but it is not shown in Balance Sheet. So the financial statement cannot show the real strength of the business in terms of quality and quantity of human asset. At present, this problem is minimised by human resource accounting.

Exhibit 'True and Fair View' – Arguments against this Statement

- It fails to reveal qualitative facts and features. Qualities like obsolesces stock, efficiency of workers, managerial ability, discipline, interrelation among worker etc. are not disclosed through accounts.
- Fixed assets are recorded at historical costs, not in current market price. So assets shown in the B/S do not reflect their true values.
- Assets and liabilities are shown at their acquired prices and recorded in Balance Sheet at acquisition costs. Current assets are recorded at their market value and liabilities at their committed amount. So B/S is a mixture of different prices and it does not expressed according to purchasing power of money at the date of Balance Sheet.

- Fictitious assets have no utility but recorded in Balance Sheet.
- Since costs are measured at historical cost and revenues are measured at current price i.e. they are measured in two different units so Profit and Loss Account does not present true and fair picture.
- Many items such as valuation of stock, estimation of provision for bad debt etc. are based on estimation/ assumption/ discretion of Accountant.
- It does not disclose non-monetary information.
- It ignores the effect of price changes.

Exhibit 'True and Fair View' Arguments in Favour of this Statement

- Balance sheet shows that at any point of time, all assets are equal to total liabilities both in side and outside.
- It is difficult to express all quantitative and qualitative, monetary and non-monetary items in same units. In this respect, all items expressed in terms of money are acceptable for comparison purpose.
- Accounts are prepared in accordance with legal provisions and with generally accepted accounting principles and accounting standard. As these plants are industrial co-operations and not registered under Companies act, 2013, thus this argument in favour of the statement of 'true and fair view' has less weightage. But since the audit of the financial statement is done by independent auditor, thus these statement can be relied upon for comparative study.
- Since a business assumes continuity so the adjustment for accrual, outstanding, advance etc. must be considered and taken into account. Accounts are prepared with regard to these necessary adjustments.

So Accounts present true and fair picture as far as possible. Most of the criticism against true and fair are based on weak arguments. Accounts contain all particulars required by articles and laws. It follows the cost convention, conservatism convention, consistency convention, going concern concept, realisation concept etc. So accounts present true and fair view.

Analysis and Interpretation – A Comparative Study

The significance of financial statements lies not in their preparation but in their analysis and interpretation. The analysis and interpretation of financial statement is the comprehensive and intelligent presentation of information that helps the interested parties for judgement and decision-making. Robert H. Wessal has defined analysis and interpretation of financial statement as a technique of X-Raying the financial position as well as the progress of a company. Financial statement analysis is a study of relationship among different financial data as disclose by single statement and a study of trend of this factors as shown in series of statement, which helps in finding the strength and weakness of the concern and which supplies required data for forecasting and budgeting. Analysis means proper arrangement of the data and methodical classification of the data given in the financial statement and regrouped into their distinct and different components parts. It involves the division of facts based on some definite plans, classifying them into classes based on certain condition and presenting them in most convenient simple and understandable form.

The figures given in the financial statement will not help unless they are put in a simplified form. Interpretation means explaining the meaning and significance of the data so simplified. It is comparison and examination of components for making conclusion about the profitability, efficiency, financial soundness of the business. It is really an art, it involves many processes; like arrangement, analysis, establishing relations between available facts and drawing conclusion on that basis. Interpretation and analysis are closely connected because interpretation is impossible without analysis and without interpretation analysis is useless. The data of financial statement are not uniform and homogeneous so analysis is made for reclassified, re-arranged to make relation between them. Interpretation is conclusion and representing of such arrangements to supply information to the interested parties. Analysis is always followed by interpretation and this interpretation is performed through a process called comparison. Therefore, whenever the word analysis is used it implies both analysis and interpretation.

- It is difficult to decide on the proper basis of comparison.
- The comparison is difficult because of difference in situation of two companies or of one company over years.
- It is invalid if the price level changes.
- Historical financial statements are not indicator of future.

Financial Analysis of Kapurthala and Gidderbaha Plant

Comparative financial analysis of KAPURTHALA and GIDDERBAHA plant has been studied on the basis of following tools:

- Financial indicator in absolute terms
- Financial ratio analysis;

Financial indicators are used to compare the financial position of the plant in absolute terms. Financial indicators used are business turnover, net profit, fixed assets, current assets, current liabilities & own funds. Average and standard deviation is used for comparative analysis of plant.

Financial ratios have been used to compare the financial position of the plants in relative terms. Financial ratios used are business turnover to total assets, fixed assets to total assets, investments to total assets, current assets to total assets, own funds to total assets, long term loans to total assets and current liabilities to total liabilities. Ratio analysis involves assessing how various line items in a firm's financial statements relate to one another. Ratio analysis of a company's present and past performance provides the foundation for making forecasts of future performance. Ratio analysis is the process of determining and interpreting numerical relationships based on financial statements. A ratio is a statistical yard stick that provides a measure of the relationship between variables or figures. This relationship can be expressed as percent (cost of goods sold as a percent of sales) or as a quotient (current assets as a certain number of times the current liabilities).

As ratios are simple to calculate and easy to understand, there is a tendency to employ them profusely. While such statistical calculations stimulate thinking and develop understanding, there is a danger of accumulation of a mass of data that obscures rather than clarifies relationships. The financial analyst has to steer a careful course. His experience and objectives of analysis help him in determining which of the ratios are more meaningful in a given situation.

Advantages of Ratio Analysis

Ratio Analysis is (useful) relevant in assessing the performance of a firm in respect of the following purposes:

- **To measure the liquidity position:** The purpose of ratio analysis to measure the liquidity position of a firm. Whether the firm is able to meet its current obligations when they become due or not? A firm can be said to be liquid, if it has sufficient liquid funds to pay the interest charges on short-term debt within a year. The liquidity ratio are useful in credit analysis by banks and other financial institutions.
- **To know the solvency position:** Ratio analysis is helpful for assessing the long-term financial liability of the firm. The long term solvency is measured through the leverage, and profitability ratios. These ratios reveal the strengths and weaknesses of a firm in respect of the solvency position. The leverage ratios indicates the proportion of various sources of finance in the firms capital structure, particularly the ratio of debt and equity share capital.
- **Operating efficiency or turnover of the firm:** The ratios are helpful in measuring the operating efficiency or the turnover of the firm. These ratios indicate the efficiency in utilizing the assets of the firm such as fixed assets turnover ratio, total resources turnover ratio etc.
- **To assess the profitability position of the firm:** The ratios are useful to assess and measure the profitability of the firm in respect of sales and the investments. These ratios are concerned about the over –all profitability of the firm.
- **Inter - firm and intra – firm comparison:** Ratios are not only reflects the financial position of a firm, but also serves as a tool for remedial actions. This is made possible only due to inter-firm comparison. This would demonstrate the relative position of the firm vis-à-vis its competition. If there is any variance in the ratios either with the industry average or with, those of competitors, the firm has to identify the reasons and would take remedial measures.
- **Trend Analysis:** The trend analysis of ratios indicates whether the financial position of a firm is improving or deteriorating over the year¹. The significance of a trend analysis of ratio lies in the fact that the analysis can know the direction of movement whether the movement is favourable or unfavourable.

Thus, ratio analysis is considered better than a mere comparison of figures in carrying out an over –all appraisal of a company's business.

Limitations of Ratio Analysis

- It is always a challenging job to find an adequate standard. The conclusions drawn from the ratios can be no better than the standards against which they are compared.
- It is difficult to evaluate the differences in the factors that affect the company's performance in a particular year as compared with that of another year and that of another company. The task becomes more difficult when comparison is made of one company with another when they are of substantially different size, age and diversified products.
- While making comparisons of ratios, due allowance should be made for changes in price level. A change in price level can seriously affect the validity of comparisons of ratios computed for different time periods and particularly in case of ratios whose numerator and denominator are expressed in different units of currency.
- Comparisons are also become difficult due to differences in definition. The terms like gross profit, operating profit, net profit etc. have not got precise definitions and there is considerable diversity in practice as to how they should be measured.
- A Balance Sheet may fail to reflect the average or typical situation, as it is prepared as of one moment of time. It ignores short-term fluctuations in assets and equities that may occur within the period covered by the two Balance Sheet dates.
- Various differences are found among the accounting methods used by different companies which variously affect the comparability of financial statements. Methods of recording and valuing assets, write-offs, costs, expenses etc differ from company to company.
- As ratios are simple to calculate and easy to understand, there is a tendency to over-employ them. While such statistical approach stimulates thinking, it is also likely to lead to the accumulation of a mass of data; if due care is not taken, that might obscure rather than clarify relationships.

Limitation of Study

Although every effort has been made to make the present study a representative in its related area, yet some limitations have been encountered which are as follows:

- The study is mainly based on the secondary data and the limitations of using such data may affect the results. In certain cases, data was not available.
- The respondents (in present case, General Managers of both plants) may not have deliberately reported their opinion due to some biasness. However, it has been tried to minimize this error in the present study by conducting interviews personally with the General Managers, yet there is no foolproof way of avoiding the possibility of an error creeping in from here and there.
- Some information (like raw material formulation affecting the cost) which might have been useful for the research was not disclosed by the selected federations due to secrecy and thus, research results are based on the available information only.
- Certain suggestions of the study are based on the observations of the federations and discussions with the staff working in these federations. However, no systematic attempt was made to study these aspects in detail.
- Time is the biggest constraint but all effort is made to get all the relevant information required for this study.
- Universe- Only two plants under the same ownership is taken from Co-operative sector.
- Plant located in the area of Punjab is taken. Analysis is limited to the areas of Punjab and it is the biggest limitation as national level comparison is not made.
- Sample size is very small. Data only for 7 years (from financial year 2010-11 to 2016-17) are analyzed. So there is a possibility of occurrence of some sampling errors.
- It takes into consideration only the financial factors, non financial factors are not considered.
- All the limitation of Financial statement and Financial ratio are also applicable to this study.

Data Analysis & Interpretation

Being both the plants are owned by the same co-operative society (i.e. Markfed) in Punjab, the provisions regarding the preparation of Financial Statement as per Companies Act, 2013 read with Accounting Standards are not applicable. Financial statements prepared by both plants include Balance Sheet and Income Statement which are not as per the prescribed schedule of the Companies Act, 2013. For the analysis and comparative study, these statements are prepared keeping in view the Accounting Standards.

Financial Indicators in Absolute Terms

Following financial indicators in absolute terms are used in comparative financial analysis of KAPURTHALA and GIDDERBAHA plants during the period of study:

- **Business Turnover**

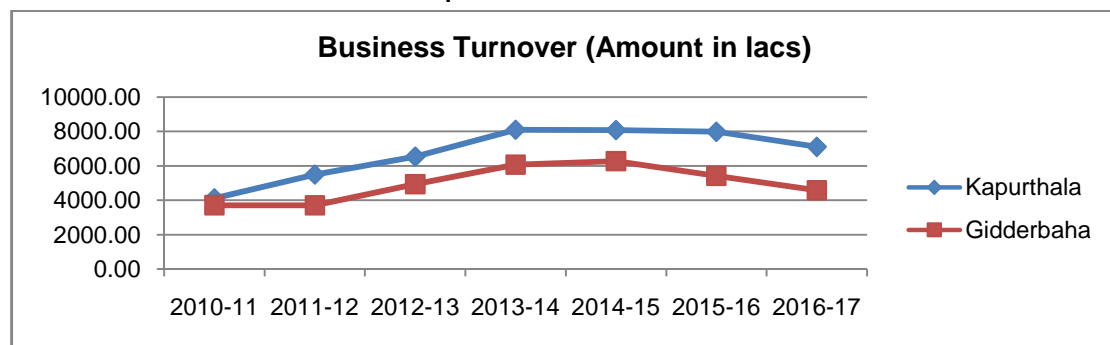
Business turnover means revenue generated from business activities. The business turnover in the both plants has been obtained by taking sales of cattlefeed and other products in absolute terms.

Table 1: Business Turnover

Business Turnover (Amount in lacs)									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Average	S.D.
Kapurthala	4125.58	5496.76	6538.38	8100.94	8084.53	7986.07	7112.08	6777.76	1514.52
Gidderbaha	3720.44	3714.71	4941.23	6075.51	6284.35	5429.05	4595.73	4965.86	1035.88

Standard deviation of business turnover of Kapurthala Plant is Rs 1514.52 lacs as compared to Gidderbaha Plant is Rs 1035.88 lacs. Average Business turnover of Kapurthala Plant is Rs. 6777.76 lacs and that of Gidderbaha Plant is Rs. 4965.86 lacs. Thus, the business turnover of Kapurthala Plant is significantly more as compared to Gidderbaha Plant with high risk of variation in Kapurthala plant.

Graph 1: Business Turnover



- **Net Profit**

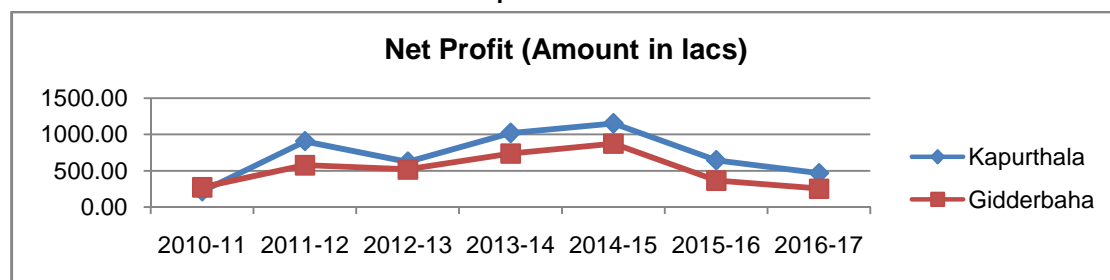
Net profit, also referred to as the bottom line, net income, or net earnings is a measure of the profitability of a venture after accounting for all costs and taxes. It is the actual profit, and includes the operating expenses that are excluded from gross profit.

Table 2: Net Profit

Net Profit (Amount in lacs)									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Average	S.D.
Kapurthala	214.95	907.10	622.67	1020.81	1153.16	643.12	465.07	718.12	328.77
Gidderbaha	271.54	576.05	517.31	737.21	873.25	364.02	252.98	513.19	235.28

Standard deviation of Net profit of Kapurthala Plant is Rs 328.77 lacs as compared to Gidderbaha Plant is Rs 235.28 lacs. Average profit of Kapurthala Plant is Rs. 718.12 lacs and that of Gidderbaha Plant is Rs. 513.19 lacs. Thus, the Net Profit of Kapurthala Plant is significantly more as compared to Gidderbaha Plant. As depicted in the graph, there is direct relation between the profit of both the plants (i.e. with the increase in profit of one plant, the profit of other plant also increases.)

Graph 2: Net Profit



- **Fixed Assets**

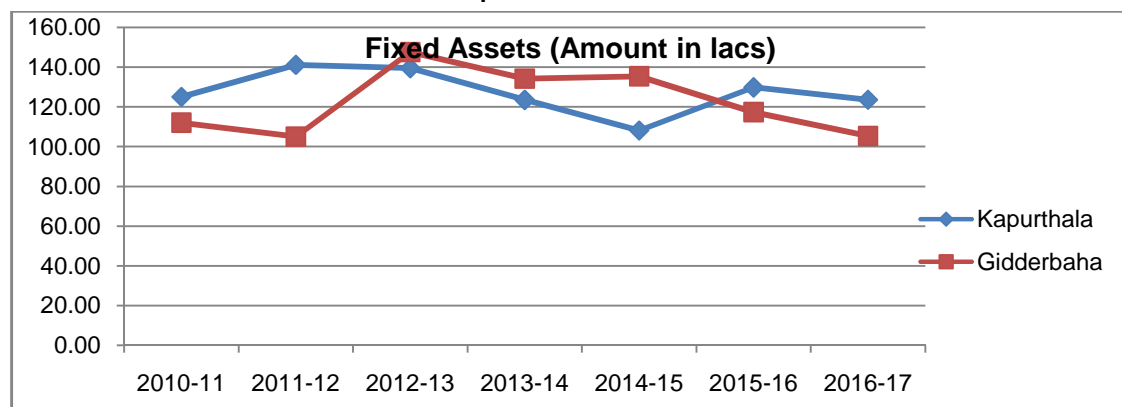
Fixed assets are the long-term tangible property of plants and are used in the production of its income. The analysis reveals that there is no significant difference between fixed assets of Kapurthala Plant and that of Gidderbaha Plant.

Table 3: Fixed Assets

Fixed Assets (Amount in lacs)									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Average	S.D.
Kapurthala	125.08	141.26	139.57	123.60	108.17	129.90	123.62	127.31	11.18
Gidderbaha	112.06	105.08	147.62	134.26	135.44	117.40	105.38	122.46	16.67

The fixed assets on an average in Kapurthala Plant and that of Gidderbaha Plant are Rs. 127.31 lacs and Rs. 122.46 lacs respectively. Since Fixed assets are recorded at historical costs, not at current market price, so assets shown in the Balance Sheet do not reflect their true values and thus this value of fixed assets has limited use in current analysis.

Graph 3: Fixed Assets



- **Current Assets**

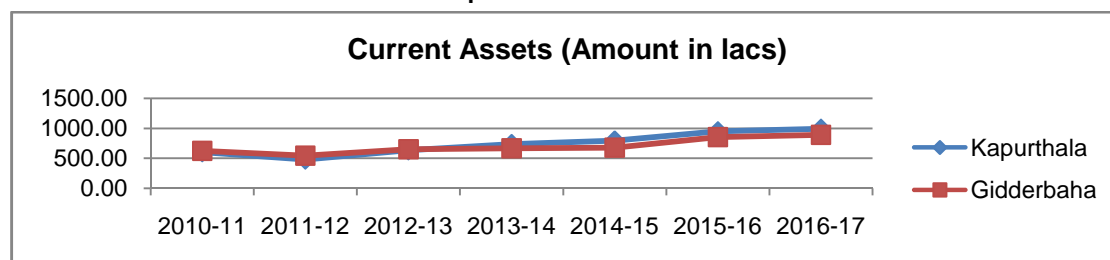
Current assets are all assets that can readily be converted into cash in normal course of business, generally a period of one year to pay outstanding debts and cover liabilities without having to sell fixed assets. Current assets in both plants mainly comprising of inventories apart from other current assets like debtors & other recoverable, cash and bank, security deposits & others. Debtors are negligible because plants are selling cattle feed to customer on advance payment basis.

Table 4: Current Assets

Current Assets (Amount in lacs)									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Average	S.D.
Kapurthala	601.65	480.08	634.18	736.89	793.77	951.09	994.19	741.69	187.06
Gidderbaha	623.54	543.26	650.57	668.46	677.43	852.68	891.19	701.02	125.31

There is no significant difference between current assets of Kapurthala and Gidderbaha plant. The mean value of current assets in Kapurthala and Gidderbaha plant is Rs.741.69 lacs and Rs.701.02 lacs respectively. However variation in the level of current asset in Kapurthala plant is significantly more than that of Gidderbaha plant.

Graph 4: Current Assets



- **Own Funds**

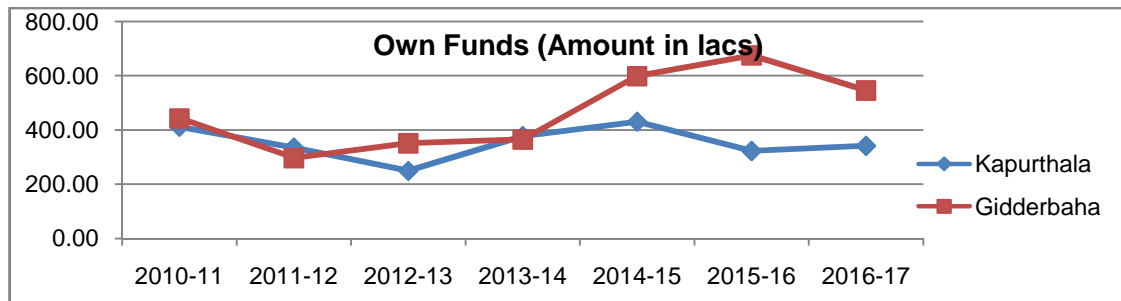
The own funds represent the total ownership funds of an enterprise. The own funds in Kapurthala and Gidderbaha plant include Head office account after adjusting profit of current year and net funds transfer to Head office.

Table 5: Own Funds

Own Funds (Amount in lacs)									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Average	S.D.
Kapurthala	412.41	335.33	249.37	377.14	430.94	322.71	341.79	352.81	60.94
Gidderbaha	442.82	296.69	351.05	364.93	598.39	674.39	545.41	467.67	141.34

The analysis reveals that there is significant difference between own funds of Kapurthala and Gidderbaha Plant from financial year 2014-15 till 2016-17. Overall, the own funds on an average in Kapurthala plant is Rs. 352.81 lacs and Gidderbaha plant is Rs. 467.67 lacs. Thus, own funds of Gidderbaha plant are significantly more than Kapurthala plant with standard deviation of Rs 141.34 lacs for Gidderbaha and Rs 60.94 lacs for Kapurthala plant.

Graph 5: Own Funds



- **Current Liabilities**

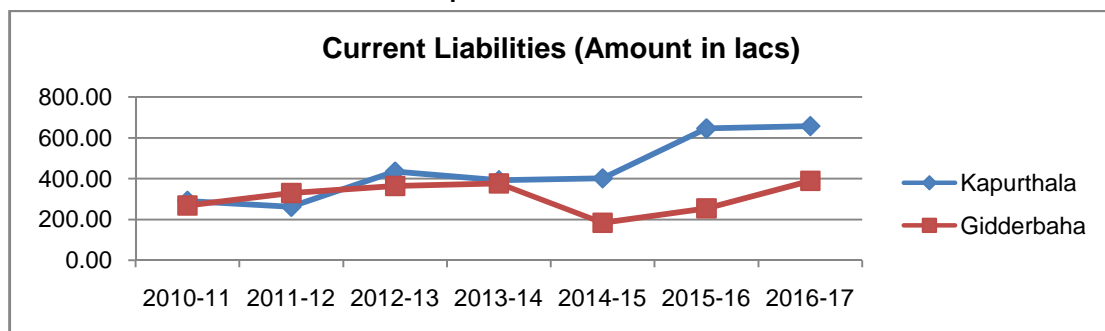
Current liabilities are plant's debts or obligations that are due within one year from the date of their inception. Current liabilities in the plants include creditors, sundry payables, short term loans or cash credit against hypothecation on stocks, and also advance payment received from customer for supply of cattlefeed & other liabilities including provisions, security deposit and unclaimed payable.

Table 6: Current Liabilities

Current Liabilities (Amount in lacs)									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Average	S.D.
Kapurthala	290.77	261.90	434.74	392.57	401.34	646.19	657.74	440.75	156.89
Gidderbaha	267.80	329.16	364.15	377.08	183.22	254.34	389.27	309.29	76.41

During financial year 2015-16 & 2016-17, current liabilities of Kapurthala plant is Rs 646.19 lacs & Rs 657.74 lacs which is almost double than that of Gidderbaha plant. Figures for Gidderbaha Plant for financial year 2015-16 & 2016-17 are Rs 254.34 lacs and Rs 389.27 lacs respectively. This is one of the reason that own funds for Gidderbaha plant is much higher than Kapurthala plant as depicted in graph 4.5 during this period. The amount of current liabilities on an average in Kapurthala plant is Rs. 440.75 lacs and Gidderbaha plant is Rs. 309.29 lacs.

Graph 6: Current Liabilities



It is concluded that the level of average of business turnover, net profit, fixed assets, current assets & current liabilities for Kapurthala Plant is higher as compared to Gidderbaha Plant. Only in case of average of own funds, Gidderbaha Plant is on the higher side. Kapurthala plant has utilised more current liabilities than own funds for financing its assets. Current liabilities include the payable on account of purchase of raw material and also advance payment received from customer on account of sale of cattle feed.

Financial Ratios Analysis

Using ratio analysis, one company (Kapurthala Plant) is compared with another (Gidderbaha Plant) as an inter-firm comparison. Thus in our current study, ratio analysis is used for inter-firm comparison. (Horizontal)

Classification of Ratios

General Classification of Ratios	Ratios used for current analysis
<p>Profitability Ratios in Relation to Sales:</p> <ol style="list-style-type: none"> 1. Gross profit Ratio 2. Operating Ratio 3. Operating Profit Ratio 4. Net Profit Ratio 5. Expense Ratio <p>Profitability Ratios in Relation to Investment:</p> <ol style="list-style-type: none"> 1. Return on Investment 2. Return on Equity Shareholders Fund 3. Return on Total Resources <p>Activity Ratios</p> <ol style="list-style-type: none"> 1. Inventory Turnover Ratio 2. Debtors Turnover Ratio 3. Creditors Turnover Ratio 4. Total Assets Turnover Ratio 5. Fixed Assets Turnover Ratio 6. Working Capital Turnover Ratio 7. Capital Turnover Ratio <p>Solvency Ratios</p> <ol style="list-style-type: none"> 1. Debt Equity Ratio 2. Proprietary Ratio 3. Fixed Assets Ratio 4. Capital Gearing <p>Liquidity Ratios</p> <ol style="list-style-type: none"> 1. Current Ratio 2. Liquidity Ratio 3. Interest Coverage Ratio 	<p>Profitability Ratios in Relation to Sales:</p> <ol style="list-style-type: none"> 1. Net Profit Ratio 2. Operating Ratio <p>Profitability Ratios in Relation to Investment :</p> <ol style="list-style-type: none"> 1. Return on Investment (ROI) 2. Return on Equity Shareholders Fund <p>Activity Ratios</p> <ol style="list-style-type: none"> 1. Inventory Turnover Ratio 2. Debtors Turnover Ratio 3. Creditors Turnover Ratio 4. Total Assets Turnover Ratio 5. Fixed Assets Turnover Ratio <p>Solvency Ratios</p> <ol style="list-style-type: none"> 1. Debt Equity Ratio 2. Proprietary Ratio 3. Fixed Assets Ratio <p>Liquidity Ratios</p> <ol style="list-style-type: none"> 1. Current Ratio 2. Liquidity Ratio

Profitability Ratios in Relation to Sales

- **Net Profit Ratio**

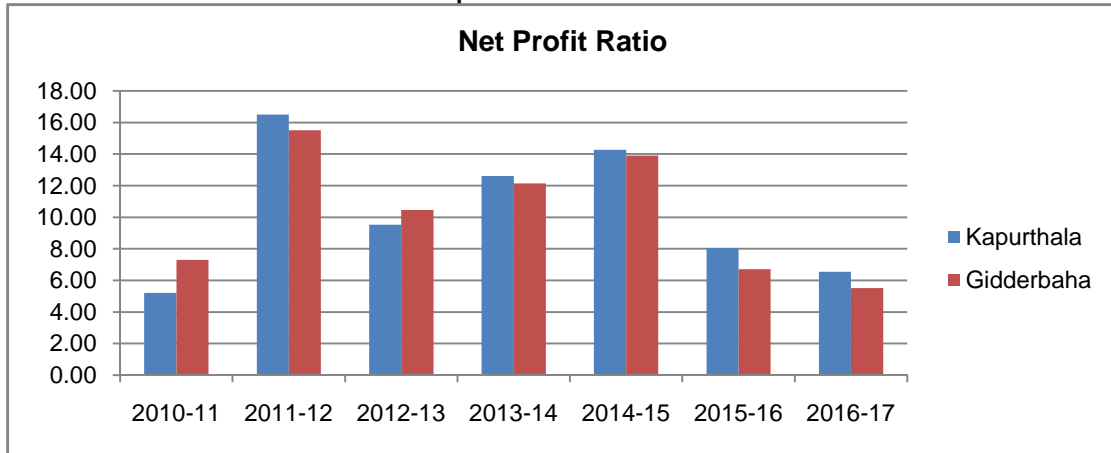
The ratio indicates percentage of net margin earned on a sale made. It is calculated as follows:

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

Table 7: Net Profit Ratio

Net profit Ratio									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD
Kapurthala	5.21	16.50	9.52	12.60	14.26	8.05	6.54	10.38	4.19
Gidderbaha	7.30	15.51	10.47	12.13	13.90	6.70	5.50	10.22	3.84

Graph 4.7 Net Profit Ratio



Significance

The ratio helps in determining the efficiency with which the affairs of a business are being managed. Constant increase in the above ratio year after year is a definite indication of improving conditions of the business. Kapurthala Plant has an average Net profit ratio of 10.38% for seven years whereas Gidderbaha Plant has 10.22%. From year 2014-15 onwards, there is decreasing trend in the profit of both the plants.

- **Operating Ratio**

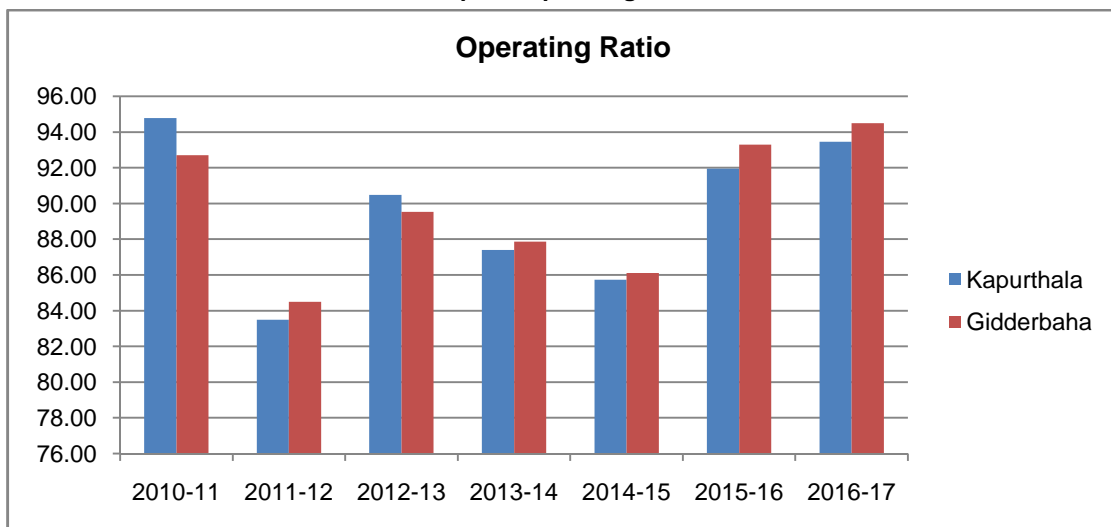
This ratio is a complementary of net profit ratio. In case the net profit ratio is 20%, the operating ratio will be 80%. Operating cost includes cost of direct materials, direct labour, direct expenses and all overheads. Financial charges such as interest, provision for taxation, etc. are not to be included in operating cost. It is calculated as follows:

Operating Ratio = Operating Cost/ Net Sales x 100

Table 8: Operating Ratio

		Operating Ratio (in %)						Mean	SD
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17		
Kapurthala	94.79	83.50	90.48	87.40	85.74	91.95	93.46	89.62	4.19
Gidderbaha	92.70	84.49	89.53	87.87	86.10	93.30	94.50	89.78	3.84

Graph 8: Operating Ratio



Significance

The ratio is the test of the operational efficiency with which the business has carried on. The operating ratio should be low enough to leave a portion of sales for giving a fair return to the investor. In the current study, it is noticed that major operating expense is cost of raw material. The efficiency and effectiveness with which the raw material are purchased and stored has direct impact on the profitability of both the plants.

Profitability Ratios in Relation to Investments

• Return on Investment (ROI)

Also called as Overall Profitability Ratio or Return on Capital Employed (ROCE) ratio, it indicates the percentage of return on the total capital employed in the business. It is calculated as follows:

$$\text{ROI} = \text{Operating Profit/Capital Employed} \times 100$$

The term 'Operating Profit' means "profit before interest and tax while the term 'capital employed' refer to the sum-total of long-term funds employed in the business.

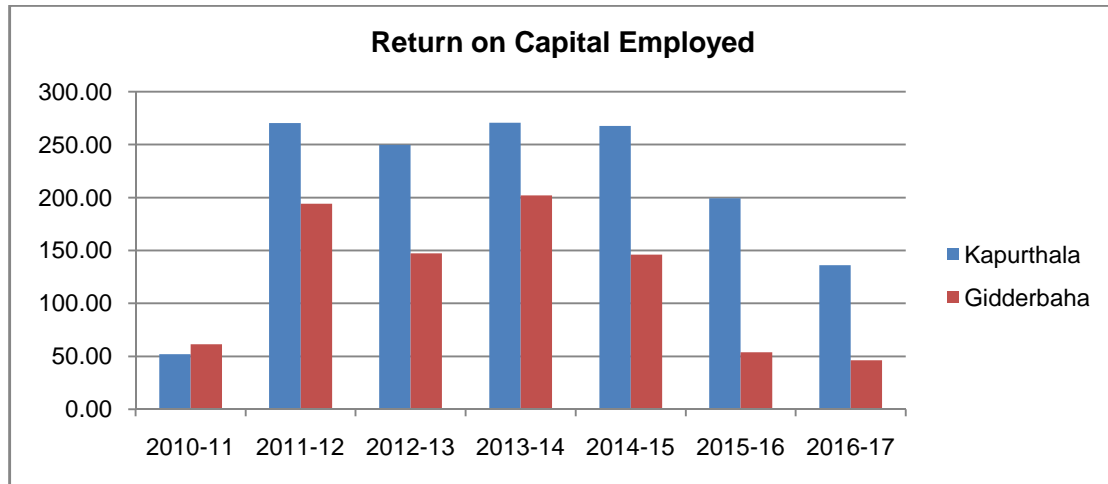
Significance

ROI measures the profit which a firm earns by investing a unit of capital. It is desirable to ascertain this periodically. The profit being the net result of all operations, ROI, expresses all efficiencies or inefficiencies of a business collectively. Thus, it is a dependable measure for judging the overall efficiency or inefficiency of the business. ROI/ROCE of Kapurthala and Gidderbaha Plant is exorbitantly high with mean value of 206.57% & 121.59% respectively. This ratio does not depict the accurate result because the book value of Fixed assets is historical value which is around 25 years old. Moreover inventory (major constituent of current assets) is financed from the Bank CC limit (major part of current Liabilities). Another reason for such high ROI/ ROCE is that the bank CC limit of both the plants always remains utilised.

Table 9: Return on Capital Employed

Return on Investment (Return on Capital Employed)									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD
Kapurthala	52.12	270.51	249.70	270.67	267.59	199.29	136.07	206.57	84.32
Gidderbaha	61.32	194.16	147.36	202.01	145.93	53.98	46.38	121.59	66.90

Graph 9: Return on Capital Employed



• Return on Shareholders Funds or Return on Net Worth

This ratio expresses the net profit in terms of the equity shareholders funds. This ratio calculated as follows:

$$\text{Net Worth} = \text{Net Profit after Interest \& Tax/ Net Worth} \times 100$$

[Net Worth = Equity Capital + Reserves & Surplus]

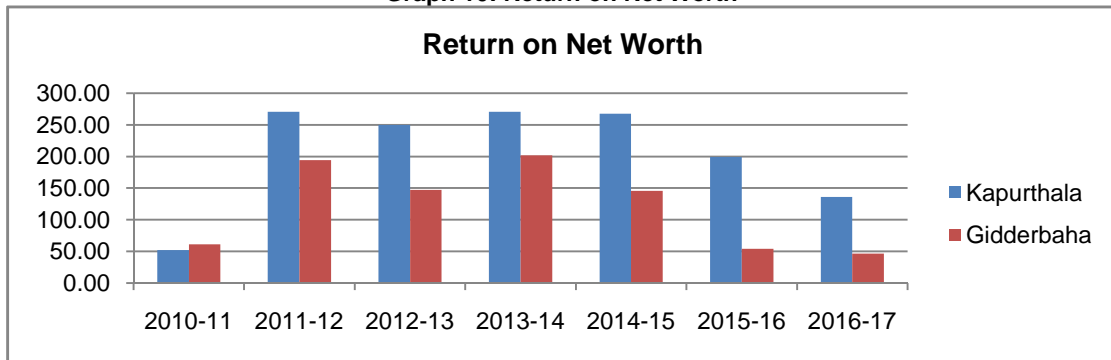
Significance

This ratio is an important yardstick of performance for equity shareholders since it indicates the return or the funds employed by them. It is reiterated that Ratio of Kapurthala and Gidderbaha Plant is exorbitantly high and does not depict the accurate result because the book value of Fixed assets is historical value which is around 25 years old. In case of both plants, as no long term liabilities exists, thus the return on shareholder funds and return on capital employed is same.

Table 10: Return on Net Worth

Return on Net Worth									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD
Kapurthala	52.12	270.51	249.70	270.67	267.59	199.29	136.07	206.57	84.32
Gidderbaha	61.32	194.16	147.36	202.01	145.93	53.98	46.38	121.59	66.90

Graph 10: Return on Net Worth



Turnover Ratios / Activity Ratio

• **Stock Turnover Ratio**

The ratio indicates whether the investment in inventory is efficiently used and whether it is within proper limits. It is calculated as follows:

Stock Turnover Ratio = Cost of Goods Sold during the year/ Average Inventory

Average inventory is calculated by taking the average of inventory at the beginning and at the end of the accounting year.

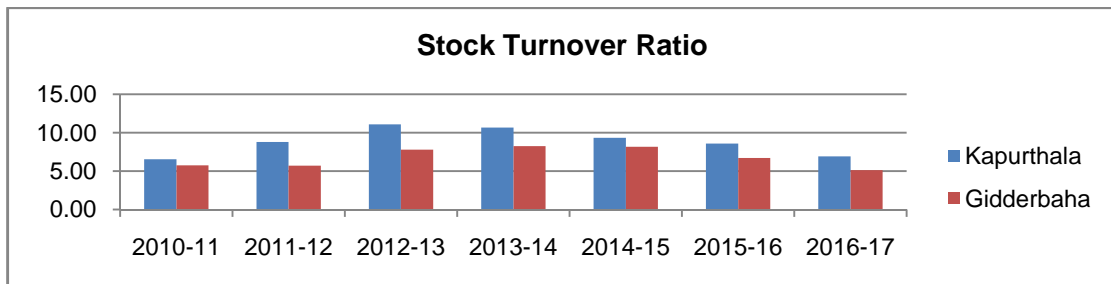
Significance

The ratio signifies the liquidity of inventory. A high inventory turnover ratio indicates brisk sales and vice-versa. The ratio is therefore a measure to discover possible trouble in the form of over-stocking or over-valuation of inventory. Kapurthala Plant has always better stock turnover ratio as compared to Gidderbaha Plant, mainly due to comparative high sale.

Table 11: Stock Turnover Ratio

Stock Turnover Ratio									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD
Kapurthala	6.54	8.78	11.10	10.67	9.33	8.58	6.94	8.85	1.72
Gidderbaha	5.73	5.70	7.78	8.24	8.17	6.70	5.11	6.78	1.30

Graph 11: Stock Turnover Ratio



- **Debtors' Turnover Ratio**

The ratio indicates the speed with which money is collected from the debtors. It is computed as follows:

Debtors Turnover Ratio = Credit Sales/Average Accounts Receivable

The term average account receivable includes trade debtors and bills receivable. Average accounts receivable are computed by taking the average receivables in the beginning and at the end of the accounting year. The higher the ratio, better it is. Debtors turnover ratio is used for computing the debt collection period. The formula for its computation is as follows:

$$\text{Debt Collection Period} = \text{Months or days in a year} / \text{Debtors turnover Ratio}$$

Credit sales of both the plants are nil. Thus this ratio is not relevant here. Nominal debtors appear in the balance sheet depicts only the disputed cases not the actual debtors.

- **Creditors Turnover Ratio**

This is similar to Debtors Turnover Ratio. It indicates the speed with which payments for credit purchases are made to creditor. It can be computed as follows:

Creditors Turnover Period = Credit Purchases/ Average Accounts Payable

The term 'accounts payable' include trade creditors and bills payable.

Significance

The creditors turnover ratio and the creditors payment period indicate about the promptness or otherwise in making payment for credit purchases. A higher creditors turnover ratio or a lower creditors payment period signifies that the creditors are being paid promptly thus enhancing the credit-worthiness of the company. However, a very favourable ratio to this effect also shows that the business is not taking full advantage of credit facilities which can be allowed by the creditors.

From the creditors turnover ratio, creditors payment period can be computed as follows:

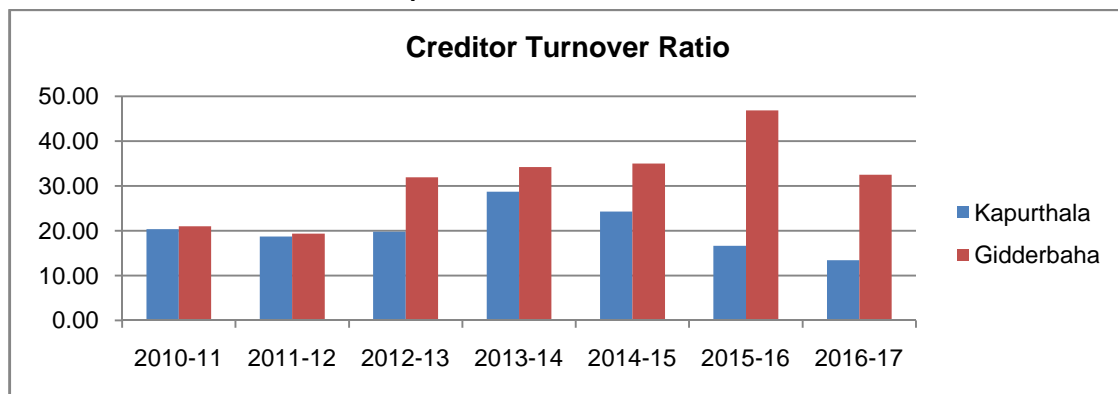
$$\text{Credit Period Enjoyed} = \text{Months or days in a year} / \text{Creditors Turnover ratio}$$

For example, if the credit purchases during a year 2016-17 for Kapurthala Plant is Rs 4957.41 lacs and Average accounts payable is Rs 368.29 lacs, the Creditors Turnover Ratio will be '13.46' (i.e., 4957.41 / 368.29) while the creditors payment period would be 0.89 months (i.e., 12 months/13.46). On the other hand, during a year 2016-17 for Gidderbaha Plant, credit purchases are Rs 3005.52 lacs and Average accounts payable Rs 92.55 lacs, the Creditors Turnover Ratio will be '32.47' (i.e., 3005.52 / 92.55) while the creditors payment period would be 0.36 months (i.e., 12 months/32.47). Position of Kapurthala is far better in all cases with low creditors turnover ratio which means a high creditors payment period which may result in saving of interest cost

Table 12: Creditor Turnover Ratio

Creditor Turnover Ratio									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD
Kapurthala	20.35	18.72	19.78	28.68	24.27	16.65	13.46	20.28	4.98
Gidderbaha	21.03	19.36	31.91	34.23	34.99	46.84	32.47	31.55	9.25

Graph 12: Creditor Turnover Ratio



- **Business Turnover to Total Assets Ratio**

These ratios indicate the efficiency with which capital employed is rotated in the business. This ratio gives an indication of the efficiency with which the operations of business are carried on. The business turnover to total assets ratio or Over-all Turnover Ratio indicates how efficiently the firm generates sales revenue on its assets. It basically indicates effectiveness in managing firm's assets.

The ratio indicates the number of times the total capital employed has been rotated in the process of doing a business. The ratio is computed as follows:

$$\text{Overall Turnover Ratio} = \text{Net Sales} / \text{Total assets}$$

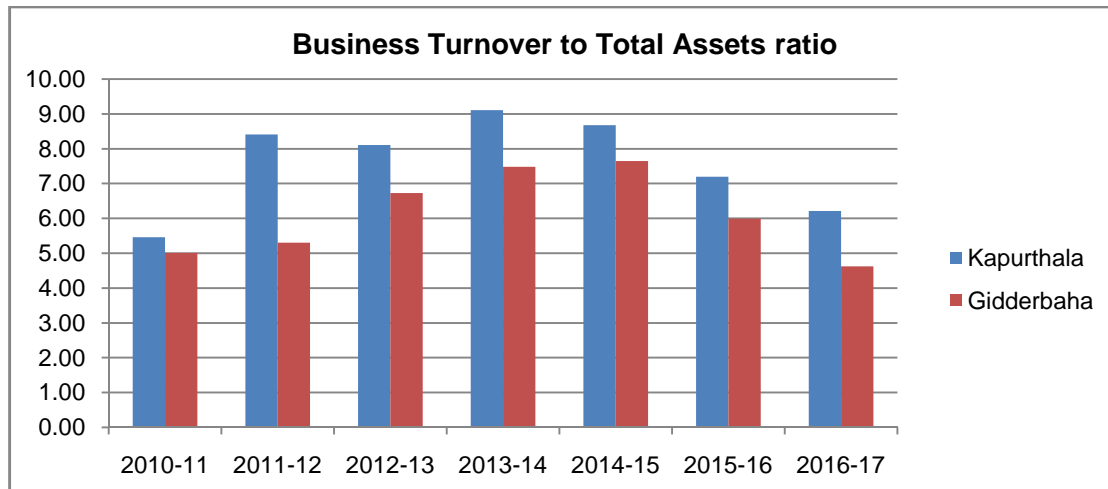
Significance

The overall profitability of a business depends on two factors, viz, (a) the profit margin, and (b)turnover. The profit margin is disclosed by the net profit ratio while the turnover is indicated by the overall turnover ratio. A business with a lower profit margin can achieve a higher ROI if its turnover is high. This is the reason for business selling in bulk earning a larger return on their investment even when they have a lower profit margin. A business should not, therefore, increase its profit margin to an extent that it results in reduced turn-over resulting in reduction of overall profit. The table reveals that the mean value of the ratio in Kapurthala Plant is 7.59 whereas in Gidderbaha plant, it is 6.11. The ratio is significantly more in Kapurthala plant as compared to Gidderbaha Plant which indicates that the Kapurthala plant is more efficient in generating sales through its assets.

Table 13: Business Turnover to Total Assets Ratio

Business Turnover to Total Assets ratio									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD
Kapurthala	5.46	8.41	8.10	9.11	8.67	7.20	6.21	7.59	1.36
Gidderbaha	5.01	5.30	6.73	7.48	7.64	5.99	4.63	6.11	1.20

Graph 13: Business Turnover to Total Assets Ratio



- **Fixed Assets Turnover Ratio**

The ratio indicates the extent to which the investment in fixed assets has contributed towards sales. The ratio can be calculated as follows:

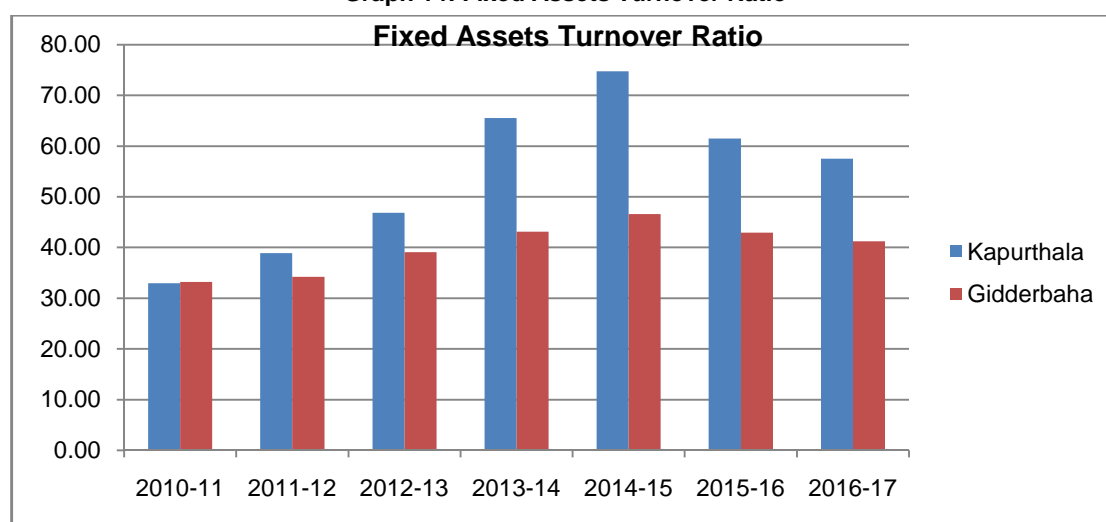
$$\text{Fixed Assets Turnover Ratio} = \text{Net Sales} / \text{Net fixed Assets}$$

Significance

The comparison of fixed assets turnover ratio over a period of time indicates whether the investment in fixed assets has been judicious or not. Of course, investment in fixed assets does not push-up sales immediately but the trend of increasing sales should be visible. If such trend is not visible or increase in sales has not been achieved after the expiry of a reasonable time it can be very well said that increased investments in fixed assets has not been judicious. On an average basis, Kapurthala Plant has better fixed assets turnover ratio as compared to Gidderbaha Plant.

Table 14: Fixed Assets Turnover Ratio

Fixed Assets Turnover ratio									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD
Kapurthala	32.98	38.91	46.85	65.54	74.74	61.48	57.53	54.00	15.01
Gidderbaha	33.20	34.21	39.11	43.11	46.60	42.94	41.26	40.06	4.90

Graph 14: Fixed Assets Turnover Ratio**Solvency Ratios**

- Debt-Equity Ratio**

The ratio is determined to ascertain the proportion between the outsiders' funds and shareholders' funds in the capital structure of an enterprise. The term outsiders' funds are generally used to represent total long-term debt. The ratio can be computed as follows:

$$\text{Debt - Equity Ratio} = \frac{\text{Total Long - term Debt}}{\text{Shareholder's Funds}}$$

The ratio is considered to be ideal if the shareholders' funds are equal to total long-term debt. However, these days the ratio is also acceptable if the total long-term debt does not exceed twice of shareholders' funds. Here in both the plant, there is nil long-term debt thus this ratio has no relevance for current study.

- Proprietary Ratio**

It is a variant of Debt-Equity Ratio. It establishes relationship between the proprietors' or shareholders' funds and the total tangible assets. The own funds to total assets ratio indicates the relative proportion of own funds used to finance a company's assets. It measures the proportion of the total assets that are financed by stockholders and not creditors. It may be expressed as follows:

$$\text{Proprietary Ratio} = \frac{\text{Shareholder's Funds}}{\text{Total Tangible Assets}}$$

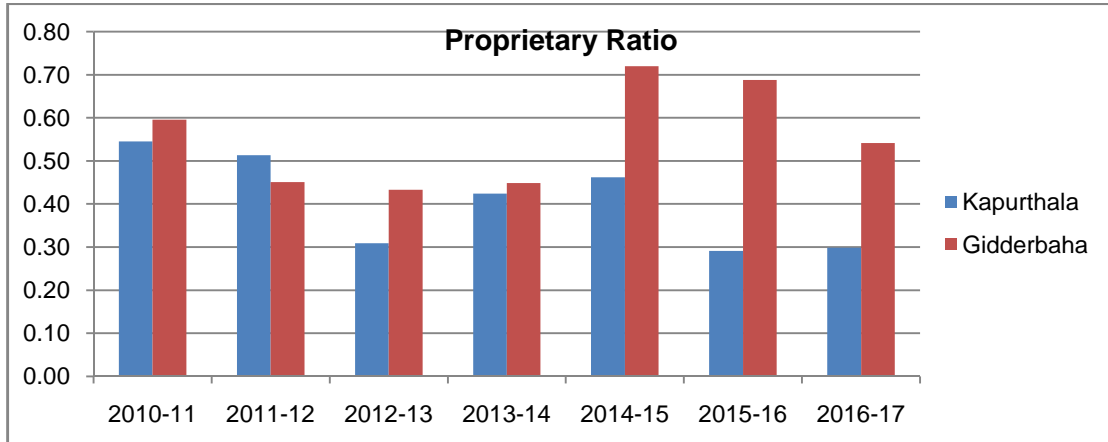
Significance

The ratio focuses attention on the general financial strength of the business enterprise. The ratio is of particular importance to the creditors who can find out the proportion of shareholders funds in the total assets employed in the business. A high proprietary ratio will indicate a relatively little danger to the creditors or vice-versa in the event of forced reorganization or winding up of the company. The analysis reveals that the Gidderbaha plant depends more on owner's funds to finance total assets than Kapurthala plant. The mean value of the ratio in kapurthala plant is 0.41 and Gidderbaha plant is 0.55.

Table 15: Proprietary Ratio

Proprietary Ratio									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD
Kapurthala	0.55	0.51	0.31	0.42	0.46	0.29	0.30	0.41	0.11
Gidderbaha	0.60	0.45	0.43	0.45	0.72	0.69	0.54	0.55	0.12

Graph 15: Proprietary Ratio



Fixed Assets Ratio

The ratio indicates the extent to which fixed assets have been acquired by use of long-term funds. **Fixed Assets Ratio = Net Fixed Assets/ Long - term Funds**

Long-term funds= Share capital + Reserves + Long-term loans.

The term 'Net Fixed Assets' means original cost of fixed assets less depreciation to date. The ratio should not be more than '1'. The ideal ratio is 0.67.

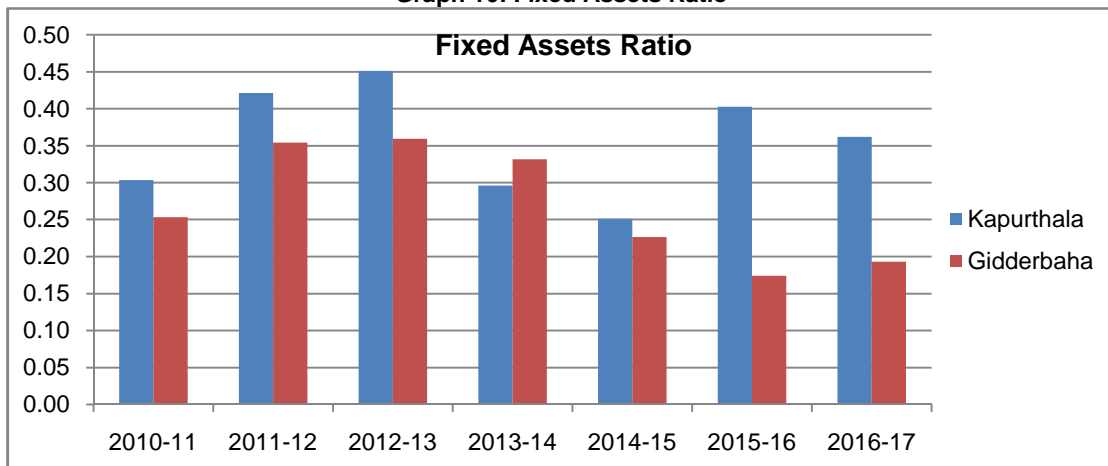
Significance

It is sound principle that fixed assets should be financed out of long-term funds. As a matter of fact a part of working capital termed as core-working capital, should also be financed by long-term funds. The ratio is therefore an indication of the fact whether the company has followed sound financial policy or not. In case the ratio is more than '1', it shows that a part of working capital has also been used to acquire fixed assets, which may prove quite troublesome for the company. But in present case, both plants have favourable ratios. In case of Gidderbaha Plant, fixed assets are financed more from Long-term funds than from working capital as compared to Kapurthala Plant.

Table 16: Fixed Assets Ratio

Fixed Assets Ratio									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD
Kapurthala	0.30	0.42	0.45	0.30	0.25	0.40	0.36	0.36	0.07
Gidderbaha	0.25	0.35	0.36	0.33	0.23	0.17	0.19	0.27	0.08

Graph 16: Fixed Assets Ratio



Liquid Ratio or Short-term Solvency Ratios

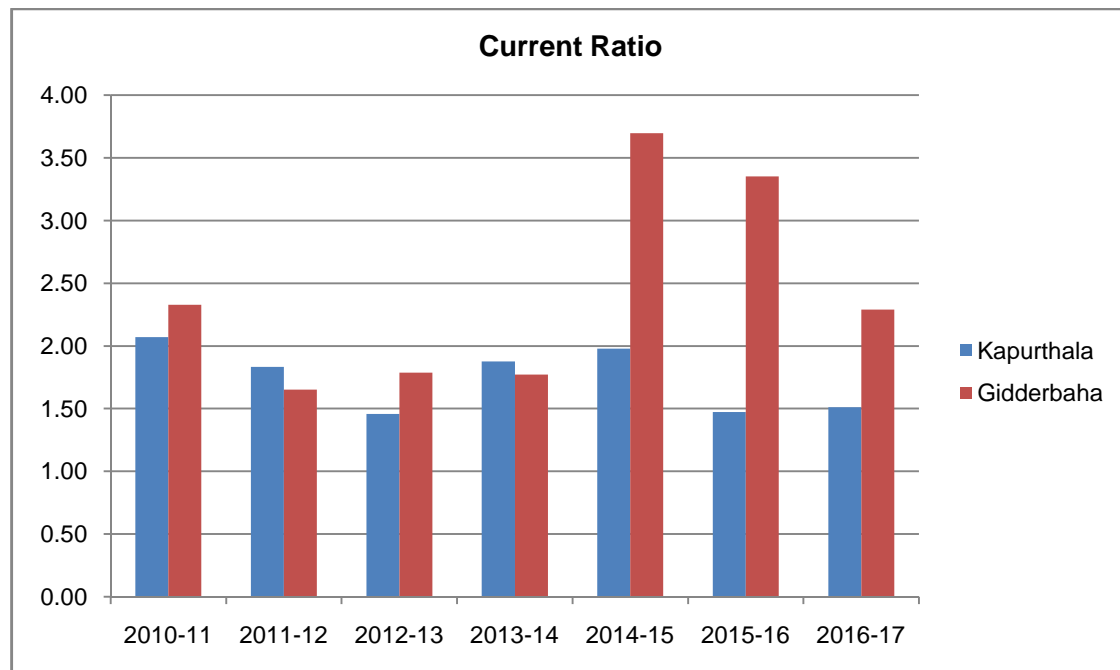
- **Current Ratio**

The ratio is an indicator of the firm's commitment to meet its short-term liabilities. It is expressed as follows:

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

Table 17: Current Ratio

		Current Ratio								
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD	
Kapurthala	2.07	1.83	1.46	1.88	1.98	1.47	1.51	1.74	0.26	
Gidderbaha	2.33	1.65	1.79	1.77	3.70	3.35	2.29	2.41	0.81	

Graph 17: Current Ratio**Significance**

The ratio is an index of the concern's financial stability, since, it shows the extent to which the current assets exceed its current liabilities. A higher current ratio would indicate inadequate employment of funds, while a poor current ratio is a danger signal to the management. An ideal current ratio is '2'. However, a ratio of 1.5 is also acceptable if the firm has adequate arrangements with its bankers to meet its short-term requirements of funds. Liquidity position as depicted by current ratio shows that Gidderbaha plant has more favourable liquidity than Kapurthala Plant. Both plant have adequate arrangement with banker to meet its short-term requirements of funds.

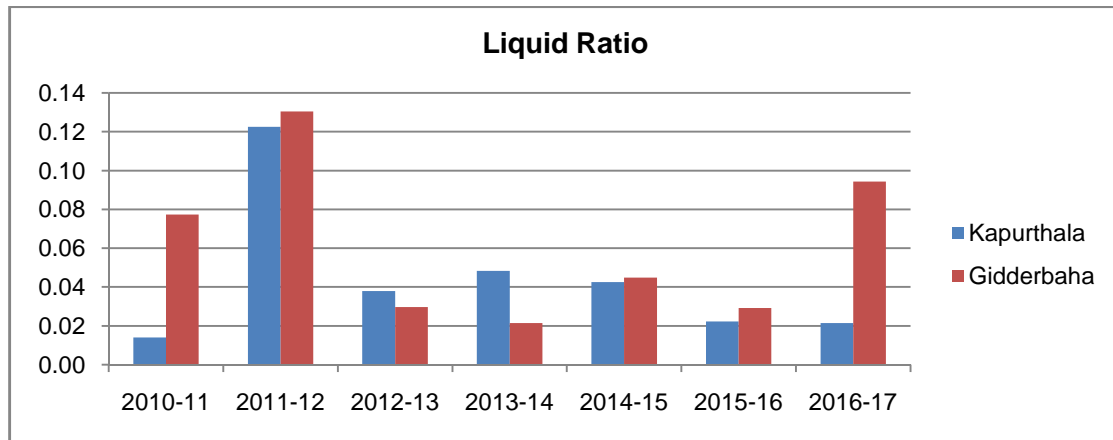
- **Liquid Ratio**

The ratio is also termed as Acid Test Ratio or Quick Ratio. The ratio is ascertained by comparing the liquid assets i.e., current assets (excluding stock and prepaid expenses) to current liabilities. The ratio may be expressed as follows:

$$\text{Liquid Ratio} = \text{Liquid Assets} / \text{Current Liabilities}$$

Table 18: Liquid Ratio

		Liquid Ratio								
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Mean	SD	
Kapurthala	0.01	0.12	0.04	0.05	0.04	0.02	0.02	0.04	0.04	
Gidderbaha	0.08	0.13	0.03	0.02	0.04	0.03	0.09	0.06	0.04	

Graph 18: Liquid Ratio**Significance**

The ratio is an indicator of short-term solvency of the company. A comparison of the current ratio to quick ratio should also indicate the inventory hold-ups. For instance, if two units have the same current ratio but different liquidity ratios, it indicates over-stocking by the concern having low liquidity ratio as compared to the firm which has a higher liquidity ratio.

Some accountants prefer the term liquid liabilities for current liabilities. The term 'liquid liabilities' means liabilities payable within a short period. Bank overdraft and cash credit facilities (if they become permanent modes of financing) are excluded from current liabilities for this purpose. The ideal ratio is '1'. Liquid ratio of Gidderbaha plant is better as compared to Kapurthala Plant.

It is concluded that Net Profit is mainly due to effect of change in raw material. Trend of Profitability of both the plant are same, but raw material to sale ratio of Kapurthala plant remains high. Kapurthala Plant has an average Net profit ratio more than that of Gidderbaha Plant. Major operating expense is cost of raw material. The efficiency and effectiveness with which the raw material are purchased and stored has direct impact on the profitability of both the plants. Return on capital employed of Kapurthala and Gidderbaha Plant is exorbitantly high as the book value of Fixed assets is historical value which is around 25 years old. In case of both plants, as no long term liabilities exists, thus the return on shareholder funds and return on capital employed is same and thus debt equity ratio has no relevance. Credit sales of both the plants are nil and thus question of analysis of debtors turnover ratio does not arise. Position of Kapurthala is far better with low creditors turnover ratio which means a high creditors payment period which may result in saving of interest cost. The analysis reveals that the Gidderbaha plant depends more on owner's funds to finance total assets than Kapurthala plant. Liquidity position of Gidderbaha is better as depicted by current ratio & Liquid ratio.

Summary

The primary objective of present study is to comparatively examine the financial evaluations of cattle feed plant in Markfed. Comparative financial analysis are based on the financial statements of Kapurthala and Gidderbaha cattlefeed plant. Being the units of co-operative society, the main objective is not to earn profit, but being an industrial co-operative, profit is still required up to the level of their own sustenance. Data from published records and other books & reports for the financial years 2010-2011 to 2016-17 are compared. Limitations of using such data may affect the results.

Based on two financial tools namely financial indicator in absolute terms and financial ratio analysis and along with inherent limitation of these financial tools, following conclusion is made:

Financial Indicator in Absolute Terms

From Income Statement, it is observed that level of average of business turnover & net profit for Kapurthala Plant is higher as compared to Gidderbaha Plant. From Position Statement, it is found that fixed assets, current assets & current liabilities are higher in Kapurthala than in Gidderbaha Plant. Only in case of average of own funds, Gidderbaha Plant is on the higher side. Thus Kapurthala plant has utilised more current liabilities than own funds for financing its assets. As regards trends of Profit of Plant, there is direct relation between the profits of both the plants.

Financial Ratio Analysis

- Ñ **Profitability Analysis:** Kapurthala Plant has maintained higher Net profit ratio in five (including latest four years) out of seven years. From year 2014-15 onwards, there is decreasing trend in the profit of both the plants. ROI Ratio of Kapurthala and Gidderbaha Plant is exorbitantly high and does not depict the accurate result as compared to industry benchmark because the book value of Fixed assets is historical value and inventory (current assets) is financed from the Bank CC limit (current Liabilities). In case of both plants, no long term liabilities exists, thus the return on shareholder funds and return on capital employed is same.
- Ñ **Turnover or Activity Analysis:** The turnover ratios indicate that the inventory, debtors, creditors and net working capital are being effectively & efficiently managed. Kapurthala Plant has better stock turnover ratio as compared to Gidderbaha Plant. Credit sales of both the plants are nil. Thus debtor turnover ratio has no relevance. Position of Kapurthala with low creditor turnover ratio means a high creditors payment period which may result in saving of interest cost. Business turnover to total sales ratio & Fixed Assets Turnover Ratio is more in Kapurthala plant as compared to Gidderbaha Plant which indicates that the Kapurthala plant is more efficient in generating sales through its assets.
- Ñ **Solvency Analysis:** Here in both the plant, there is nil long-term debt thus debt equity ratio has no relevance for current study. Propriety ratio reveals that the Gidderbaha plant depends more on owner's funds to finance total assets than Kapurthala plant. Fixed Assets Ratio indicates that in case of Kapurthala Plant, fixed assets are financed more from Long-term funds (here only own fund) than from working capital as compared to Gidderbaha Plant. Solvency analysis of both plants depicts that both relies more on short-term funds. They are not using long-term loans.
- Ñ **Liquidity Analysis:** The liquidity analysis revealed that the liquidity position of Gidderbaha plant is more favourable than Kapurthala Plant. Both plants have adequate arrangement with banker for financing current assets.

Suggestions

- Till date, the manual system of book keeping is being followed in both units. Proper system of accounting is required to be set up in both the plants. It is recommended to use integrated ERP software for quick financial analysis. This will result in more efficient MIS reports and increase in the productivity and effectiveness of decision making by Management of both the plants. The technology to be used in terms of purchase, sale and billing system in plants will also enhance the real time control over the raw material, work-in-progress and finished goods.
- Currently, plant has nil long term source of outside finance. In order to increase rate of return on own fund of the plants, long-term sources of finances apart from own funds should also be used. This will leads to diversification of risk. Also trading on equity by adding the long term outside liability enhances the rate of return on own funds.
- From the financial statement, it is observed that fixed assets which are valued at historical cost, are around 25 years old. With the development of technology, new efficient techniques of manufacturing cattle feed are invented. Plants need to invest in new technology by renovating both the plants.
- Profit and Sales for last two year of both the plant has steep decline. Thus Marketing team at Head Office has to take strong effective steps to revive the sale and increase the market share. This will lead to increase in the profit.
- Credit sale may be one of avenue for the plants for increasing sale. Currently, no credit is given to customers and cattle feed is delivered to the customers only on the basis of advance payment received. To boost sale, credit may be given against bank guarantee.
- Stock in hand (raw material, work in progress and finished goods) has around 80% share in total assets for both the plant. Out of total stock in trade, major chunk belongs to raw material. Due to seasonal nature of raw material, both plants need to maintain advance stock in the month of January to March each year. Material purchase management and storage of the same is the key parameter affecting the profitability. The efficiency and effectiveness with which the raw material are purchased and stored has direct impact on the profitability of both the plants. Use of JIT techniques by entering into MOU with the suppliers can be examined.

- Kapurthala plant has capital work in progress which is shown on assets side of Balance Sheet and against which provision is created on liabilities side. As this is very old capital work in progress, it requires set off. Any legal case or key point can be mentioned by way of notes to accounts outside the Balance Sheet. Also both plants have old recoverable under the head "Loan and advance & Security deposit". Steps should be taken to recover the amount and if such amount cannot be recovered then it is advised that same should be written off.
- For better analysis of financial results, it is suggested to prepare Cash flow statement and Statement of Changes in Equity along with Balance Sheet and Income Statement.
- Own fund of Gidderbaha is higher than Kapurthala. Major portion of working capital is financed through short term cash credit limits. Long term outside finance as an alternate to own funds & short term cash credit limit should also be chosen by both plants.

Conclusion

The overall financial analysis brings out that the financial position of Kapurthala Plant has been better than that of Gidderbaha Plant. Turnover and profit always remained high in Kapurthala Plant but the declining level of sales & profit in the later years in both the plants is an area of concern. The profitability analysis of both the plant indicates towards the declining profitability of the plants in later years of the study. The liquidity analysis of both the plants reveals that both have current assets to pay its current obligations. The solvency analysis reveals that for long term finance, both plant rely on own funds. Short-term outside sources of finance are used in both plant. The amount of long-term loans is nil. The turnover analysis indicates that the problem relating to turnover in both plants is excessive investment in stock due to seasonal nature of raw material. The plants under study can perform efficiently and effectively only if their financial position is strong. Both the plants need to pay more attention on improving their financial position. The suggestions given above may help the two plants in improving their working and performance.

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