FINANCIAL PERFORMANCE ANALYSIS OF FERTILIZERS INDUSTRY IN GUJARAT

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ABSTRACT

In India, agriculture is the largest sector of economic activity. It provides food, raw materials and above all, the employment to a very large proportion of population. The national output depends on the output in agriculture, as it is one of the most dominating sectors in India. Agriculture accounts for nearly one-fourth of India's GDP and more importantly about two-third of the country's population is dependent on agriculture and allied activities for their livelihood. India has inherited a rich and flourishing civilization spanning over thousands of years. Over 70% of the population is looking for agriculture, for their sustenance. It provides food to millions of people and raw materials to our industries.

Indian fertilizer industry's main objective is to ensure the supply of primary and secondary nutrients in the required quantities. The Indian Fertilizer Industry is the most energy intensive sectors according to the context of environmental discussions. As there is increasing productivity through the implementation of competent and pollution free technologies in the manufacturing sector it would be desirable in combining economic, environmental and social development objectives. Today the Indian fertilizer industry in the past 50 years has grown in size and stature as it ranks third in the world.

Main objective of the study is to analyze financial position of sample companies i.e. GNVFC, GSFC, IFFCO and KRIBHCO of Fertilizer Industry of Gujarat for the year of 2010-11 to 2014-15. However, a comparative logical study has been undertaken wherever it is feasible for better conclusions.

Key Words : GNVFC , GSFC, IFFCO and KRIBHCO

INTRODUCTION

India is predominantly an agrarian economy. The Indian economy mainly depends upon its agricultural produce. Agriculture accounts for nearly one-fourth of India's GDP and more importantly about two-third of the country's population is dependent on agriculture and allied activities for their livelihood. India has inherited a rich and flourishing civilization spanning over thousands of years. Over 70% of the population is looking for agriculture, for their sustenance. It provides food to millions of people and raw materials to our industries. Besides, it provides crucial backward and forward linkages to the rest of the economy.

Fertilizer is defined as any substance which is organic or inorganic, natural or artificial, supplies one or more of the chemical elements required for plant growth. Carbon, oxygen and hydrogen are directly supplied by air and water and therefore not treated as nutrients by the fertilizer industry. One of the vital industries for the Indian economy is the Indian Fertilizer Industry as it

Manufactures a very critical raw material for agriculture which is the major occupation of the country. As a result of the chemical fertilizers being one of the related parts of the agriculture, there is tremendous scope for the growth of the chemical fertilizer industry of India. The Indian Fertilizer Industry is one of the associated sectors of the agricultural sphere. India has appeared as the third largest producer of nitrogenous fertilizers. The adoption of back to back Five Year plans has paved the way for self sufficiency at least in the production of food grains. The large scale use of chemical fertilizers has been instrumental in bringing about the green revolution in India. The fertilizer industry in India began its journey way back in 1906.

The fertilizer industry in India consists of three major players; The Government owned Public Sector undertakings, Cooperative Societies like KRIBHCO, IFFCO and units from Private sector. There are about 33 major producers producing N, NP and NPK fertilizers in the country at present. The fertilizer industry of India had made constructive use of the fertilizer subsidy provided by the Government of India to ensure that the country achieved reasonable self-sufficiency in food grain production.

There are main four companies which produce chemical fertilizer in Gujarat. Out of them the Gujarat State Fertilizer Chemical Limited established the first ever chemical fertilizer factory in Gujarat at Baroda in 1967. GSFC was first joint sector industrial unit in India with equity capital of State government 49% and public 51%. It was also first unit to manufacture DAP. Fertilizer in India them in nine years later, in 1976 the Gujarat Narmada Valley Fertilizer Company Limited popularly known as GNFC established a chemical fertilizer factory at Barouche. GNFC promoted by the government of Gujarat and GSFC. After the establishment of these two companies in Gujarat, in1975 Indian Farmers Fertilizer Co-operative Limited (IFFCO) set up its plants at Kalol and Kandla in Gujarat. Krushak Bharti Co-operative Limited (KRIBHCO) established its manufacturing unit in Gujarat. First used by ancient farmers fertilizer technology developed significantly as the chemical needs of growing plants were discovered. The use of synthetic fertilizer has significantly

improved the quality and quantity of the food available today. Their long term use is harmful the environmentalists.

IMPORTANCE OF AGRICULTURE IN INDIA

Following points shows the importance of agriculture in India.

(1) Contribution in National Income

Agriculture contributes the major share to the national income of India. Before Independence, the contribution to India's National Income used to be 65 per cent. After Independence, it began to decline proportionately, as the policy followed then was to pay more attention to the non-agricultural sectors in the India economy.

(2) Employment

Not just that the agriculture is the main source of livelihood in India, but it also provides employment and work to a large majority of the Indian people. Thus, agricultural sector provides employment to about 62 per cent of the working population.

(3) Contribution in Industrial Development

Agriculture provides essential raw materials to a number of industries like textile, jute, sugar and vanaspati ghee. Moreover, the most important product of agriculture is food grains which can be distributed to whole population, even to the workers engaged in Industries.

(4) Export

Majority of the produce exported by India are agriculture based products. India exports most of the agriculture products like Coffee, tea, cocoa, sugar, hides and skins, cotton, raw wool, and fruits, jute, spice and vegetables etc. Exports of agriculture and related products accounted for about 12 per cent of the total exports.

(5) Consumption

It is estimated that about 60 per cent of goods used by the people in India originate in the agricultural sector.

(6) Contribution to government revenue

The tax revenue of government is strongly linked with the output level of the agricultural sector. With increase in agricultural output, industrial output also tends to increase and the result is the expansion in the total volume of exchange. All these results into large tax revenue of the government increase movement of agricultural and industrial goods.

NEED FOR FERTILIZERS IN INDIA

Fertilizer is a substance to soil to improve plants' growth and yield. First used by ancient farmer's fertilizer technology developed significantly as the chemical needs of growing plants were discovered. Modern synthetic fertilizers are composed mainly of nitrogen, phosphorous and potassium compounds us the secondary nutrients added. The use of synthetic fertilizers has significantly improved the quality and quantity

at the food available today but their long term use is debated by environmentalists. Following points shows need for fertilizers in India:

- It is universally accepted that the use of chemical fertilizer in an integral of the package of practice for raising the agricultural production to a higher place.
- Increasing agriculture production in Indian by area increasing process is no longer possible as cultivable and left over is only marginal. Further a considerable cultivable land is being diverted year after year for housing and industrial etc. Hence self sufficiency in food lies in increasing the field per unit area per unit time through adoption of modern agricultural technology.
- Fertilizer have the advantages of smaller bulk easy transport relatively quick in an availability at plan-food constituents and the facility of their application in proportion suited to the actual requirements of crops and soils.
- There is need for an efficient use of fertilizers as major plant nutrient resource in enhancing the farm productivity.
- Other resource of plant nutrients like organic manures bio-fertilizers etc. Also should be integrated to get the maximum agriculture output term every kilogram of applied nutrient in the form of fertilizers.
- To improve our agriculture output India needs more fertilizers.

CURRENT SCENARIO OF FERTILIZER INDUSTRIES IN INDIA

- Most companies are expecting approval for the huge capital expenditure plans form department of fertilizer and industry.
- Indian fertilizer companies joined hands with Jordan, Senegal, Oman, Morocco, Egypt etc
- In India production of urea was 21.8 million tonnes whereas consumption is 28.2 million tonnes in 2010-11, so 6.4 million tonnes of urea26 is imported by India in 2010-11. 2/26/2013
- Indian fertilizer companies joined hands with Jordan, Senegal, Oman, Morocco, Egypt etc.
- The demand of Chemical fertilizer is expected to increase by 4% in 2012-13.27 2/26/2013
- Fertilizer subsidy has taken largest share for 35.9% (62301/173420 Crore) of total subsidies in 2010-11
- In same way production of DAP in India was 7.76 million tonnes whereas the consumption was 11.4 million tonnes in 2010-11, so 3.64 million tonnes of DAP is imported by India in 2010-11

All India demand forecast of fertilizer products ('000 tones) 2015-16 to 2019-20

Year	Urea	DAP	NP/NPKs	SSP	MOP*
2015-16	32858	12212	11142	5513	4643
2016-17	33677	12413	11420	5948	4793
2017-18	33754	12764	11841	6476	4934
2018-19	34536	12950	12318	6626	5048
2019-20	35307	13014	12799	7096	5086

Sources : Working Group Report on Fertilizer Industry for Twelfth Five-Year Plan

STATEMENT OF THE PROBLEM

"A COMPARATIVE FINANCIAL ANALYSIS OF FERTILIZER INDUSTRY IN GUJARAT FOR YEAR 2010 TO 2015"

OBJECTIVES OF THE STUDY

The broader objective of this study is to know the financial performance of fertilizer industry, this objective is sub-divided into:

- To know growth and the development of fertilizer industry.
- To examine the financial position of fertilizer industry.
- To measure the profitability of fertilizer industry.
- To examine liquidity position of fertilizer industry.
- To assess the financial structure of fertilizer industry.
- To assess the operational efficiency of fertilizer industry.
- To make suggestions for improvement of financial soundness.

HYPOTHESIS OF THE STUDY

"A Hypothesis is a special proposition, formulated to be tasted in a certain given situation as a part of research which states what the researcher is looking for." In order to carry out this study scientifically, the following hypotheses have been formulated.

- **Null Hypothesis**: There is no any significant difference in financial performance in between years and in - between companies under study.
- **Alternative Hypothesis:** There is significant difference in financial performance in between years and in - between companies under study

UNIVERSE OF STUDY

For the research purpose, Researcher has selected the following major fertilizer companies of Gujarat. These companies are holding major share of Fertilizer Market

- GNFC (Gujarat Narmada Valley Fertilizers & Chemicals Limited.)

- GSFC(Gujarat State Fertilizer & Chemicals Limited)
- IIFCO (Indian Farmers Fertiliser Cooperative Ltd.)
- KRIBCO(Krishak Bharati Cooperative Limited)

PERIOD OF RESEARCH STUDY

Present study has been made covering the period of 5 years from April 2010 to March 2015. The period of time before the year 2010 and even after 2015 has also been considered wherever necessary. Thus, the selected period provides latest picture of Fertilizer Industries of Gujarat for study. The evaluation of changes due to changes in economic policy and the study of financial performance of different Fertilizer Industries of Gujarat.

SOURCES OF DATA

The study is mainly based on secondary data obtained from the annual published reports of the different companies. Financial Annexure published. Data necessary for testing the validity of hypotheses are obtained from published annual reports of the fertilizer companies for different years. Other publications and reports of different task forces, study groups and committees provide other necessary data required for the study, besides information has also been taken from different publications, various books, periodicals, journals etc.

DATA ANALYSIS TECHNIQUES

The financial health of any company can be diagnosed by analyzing profitability, productivity. For making such analysis collected data is duly edited, classified and analyzed by using appropriate and relevant accounting and statistical techniques. There are various tools or techniques for analyzing the financial data are used. These tools can be classified into two:

A. ACCOUNTING TOOLS

B. STATISTICAL TOOLS

(A) ACCOUNTING TECHNIQUES

For analyzing financial performance and measuring financial efficiency of fertilizers Companies, We are hereby to use following accounting tools i.e.

RATIO ANALYSIS

A ratio expresses mathematical relationship between one numbers to another number. The ratio analysis is the best known and widely used tool of financial analysis. “As operation definition or ratio is the relationship between one item to another in a simple mathematical form.” “A, ratio is simply one number expressed interims of anther. It is found by dividing one number the base into the other”.

(B) STATISTICAL TOOLS

For making the study more scientific and accurate Statistical tools like:

- Diagrammatic and Graphic presentation of data
- ANOVA Test are used.

DIAGRAMMATIC AND GRAPHIC PRESENTATION OF DATA

Diagrams and graphs are visual aids, which give a bird's eye view of a given set of numerical data. They present the data in simple readily comprehensible and intelligible form. Graphic presentation of statistical data gives a pictorial effect to what would otherwise be just a mass of figures. Diagrams and graphs depict more information that the data shown in the table. These clarify the existing trend in the data and how the trend changes.

ANALYSIS OF VARIANCE (ANOVA)

The analysis of variance, one of the most important tools of statistical analysis, has been developed specially to test the hypothesis whether the means of several samples have significant differences or not.

The analysis of variance furnishes a technique for testing simultaneously the significance of differences among several means. From these techniques one is able to determine whether the samples have the same mean as the population from which they have been drawn.

MAJOR FINDINGS OF THE STUDY

In the preceding chapters effectiveness of firm's actions and decisions is evaluated using the effective financial management and statistical tools. The application of relevant tools has helped in providing an answer to the problems relating to the Financial Management of the sample units. Some of the important findings of the study based on the analysis are given below:

- The debt to equity ratio shows the percentage of company financing that comes from creditors and investors. Debt Equity Ratio is expected to be lower than 1 and average debt equity ratio of selected fertilizers companies under study during the study period remained lower than 1 i.e. 0.87 for GNVFC, 0.21 for GSFC and 0.52 for KRIBHCO except IFFCO which was 1.83. So it can be concluded the companies are using shareholder fund more than other creditor finance which is strong financial aspect.
- Interest coverage ratio is a financial ratio that measures a company's ability to make interest payments on its debt in a timely manner. Interest Coverage Ratio with value of 1 or more expresses favorable situation and average interest ratio of the sample fertilizer companies remained more than 1 during study period i.e. 8.84 for GNVFC, 35.09 for GSFC, 1.18 for IFFCO and 6.89 for KRIBHCO which indicates that companies have enough fund to pay their interest expenses.

- Equity ratio measures how much of a firm's assets were financed by investors. Higher equity ratio shows the favorable situation for company and average equity ratio of the selected fertilizer companies under study remained very low during study period i.e. 0.02 for GNVFC, 0.01 for GSFC, 0.02 for IFFCO and 0.07 for KRIBHCO which suggests that more creditors fund than shareholder fund are engaged in assets of companies which is not good scenario.
- Total Asset turnover ratio shows how efficiently a company can use its assets to generate sales. Higher turnover ratios mean the company is using its assets more efficiently and average total asset turnover ratio of the selected fertilizer companies under study was found low during study period i.e. 0.60 for GNVFC, 0.94 for GSFC, 054 for IFFCO and 0.43 for KRIBHCO which expresses that companies are failed to utilize assets to generate sales in efficient manner.
- Fixed asset turnover ratio calculates how efficiently a company is a producing sales with its machines and equipment etc. A high turnover is favorable and average fixed asset ratio of sample units under study was found high enough i.e. 1.03 for GNVFC, 2.89 for GSFC, 2.18 for IFFCO and 1.40 for KRIBHCO which is more than 1 so it implies that companies use their fixed asset efficiently to generate sales.
- Current asset turnover ratio measuring firm's ability of generating sales through its current assets (cash, inventory, accounts receivable, etc.). Higher the current ratio, better will be the situation for company. Average current asset turnover ratio of sample units under study was fair enough for study period except IFFCO i.e. 1.87 for GNVFC, 1.82 for GSFC, 0.88 for IFFCO and 1.07 for KRIBHCO.
- Working capital turnover ratio measures how efficiently a company is using its working capital to support a given level of sales, so higher ratio is desirable. Average working capital turnover ratio of sample companies during study period remained high enough except IFFCO i.e. 37.08 for GNVFC, 3.77 for GSFC, -4.71 for IFFCO and 4.35 for KRIBHCO which leads to the conclusion that sample companies efficiently use working capital to generate desired sales.
- Inventory turnover ratio measures how many times average inventory is sold during a period. Higher inventory ratio is desirable and average inventory turnover ratio of the selected fertilizer company under study was enough high during study period except IFFCO i.e. 6.27 for GNFC, 8.64 for GSFC, 0.86 for IFFCO and 8.67 for KRIBHCO.
- Debtor turnover ratio measures how many times a business can collect its average accounts receivable during the year. Higher ratios mean that companies are collecting their receivables more frequently throughout the year. Average debtor turnover ratios of selected fertilizer companies under study during study period was enough high i.e. 4.37 for GNVFC, 3.43 for GSFC, 15.53 for IFFCO and 1.96 for KRIBHCO.
- Credit turnover ratio is how many times a company can pay off its average accounts payable balance during the course of a year. A higher ratio shows suppliers and creditors that the company pays its bills

frequently and regularly. Average credit turnover ratio of sample units was high during study period i.e. 7.93 for GNVFC, 7.52 for GSFC, 11.50 for IFFCO and 6.70 for KRIBHCO which implies favorable situation for companies.

- The average collection period is the amount of time it takes for a business to receive payments owed in terms of accounts receivable. A low average collection period indicates that the organization is collecting payments faster. Average collection period of sample units was higher during study period i.e.89.37 except for GNVFC, 116.82 for GSFC, 64.15 for IFFCO and 263.13 for KRIBHCO which indicates favorable for GNVFC and IFFCO while adverse for GSFC and KRIBHCO.
- Gross profit ratio calculates the percentage of sales that exceed the cost of goods sold. A high ratio may indicate high net sales with a constant cost of goods sold. Average Gross profit ratios of the selected fertilizer companies under study was enough high during given study period i.e. 8.46 for GNVFC, 17.54 for GSFC, 20.61 for IFFCO and 9.17 for KRIBHCO which implies that gross profit of companies is reasonably high.
- Net profit ratio shows how much net income a business makes from each rupee of sales. Higher net profit ratio shows favorable situation. Average net profit ratio of selected units under study during study period was 7.78 for GNVFC, 10.24 for GSFC, 6.25 for IFFCO and 7.41 for KRIBHCO which shows good profitability condition.
- EPS ratio measures the amount of net income earned per share of stock outstanding. Obviously higher ratio is expected. Average earning per share ratio of selected sample units was high enough except KRIBHCO during study period i.e. 20.18 for GNVFC, 44.20 for GSFC, 15.31 for IFFCO and 4.20 for KRIBHCO which shows favorable financial situation.
- Return on capital employed ratio shows investors how many rupees in profits each rupee of capital employed generates. Average return on capital employed ratio of selected units during study period was 0.08 for GNVFC, 0.24 for GSFC, 0.32 for IFFCO and 0.36 for KRIBHCO which is very lower. It can be concluded that sample units do not generate sufficient return on capital employed.
- Return on Equity ratio measures the ability of a firm to generate profits from its shareholders investments in the company. This ratio should expected to be more than 1. Average return on equity ratio of selected fertilizer units under study during study period was enough high except KRIBHCO i.e. 2.02 for GNVFC, 6.95 for GSFC, 1.53 for IFFCO and 0.42 for KRIBHCO which shows capacity of selected units to generate return on share holder's fund.
- The quick ratio or acid test ratio is a liquidity ratio that measures the ability of a company to pay its current liabilities when they come due with only quick assets. Higher quick ratios are more favorable for companies because it shows there are more quick assets than current liabilities. Average quick ratio of sample units for the study period was found enough high except GNVFC i.e. 0.71 for GNVFC, 1.54

for GSFC, 4.48 for IFFCO and 2.92 for KRIBHCO which shows favorable situation for companies except KRIBHCO.

- The current ratio is a liquidity and efficiency ratio that measures a firm's ability to pay off its short-term liabilities with its current assets. 1 or higher ratio is suitable. Average current ratio of selected fertilizer companies for the study period was found enough high i.e. 1.01 for GNVFC, 1.95 for GSFC, 5.52 for IFFCO and 3.30 for KRIBHCO which shows that companies have sufficient ability to pay off their short term liabilities.

SUGGESTION

On the basis of afore discussed conclusions following are the suggestions for the betterment in the financial management of the selected fertilizer companies under study:-

- Inventory policies need to be reviewed. Efforts should be made to forecast supplies and demands and set requirement of inventories.
- Liquidity and profitability should be traded in such a way that positive relationship between variables found during the study is beneficial. The company should keep its creditors at optimal level.
- Receivables also require attention of the management for their over dues. The credit policies of the company should be checked at regular intervals so as to incorporate the latest trends of the business environment as well as payment track record of the debtors,
- Working capital should be contained to optimum level because working capital in excess of the requirement will only decrease the profitability.
- The excess funds blocked in form of cash and bank balances need to be utilized and invested in a profitable manner.
- Company should depend not only on creditors for working capital; though these are inexpensive yet they affect the goodwill of the company.
- The company should explore other economical sources of working capital finance.

LIMITATIONS OF THE STUDY

This study is based on secondary data taken from published annual reports of fertilizer companies and other publications. Its findings depend entirely on the accuracy of such data. This study is limited to the selected inputs of fertilizer industry and the findings are not applicable to the whole industry.

There are many approaches to the measurement of financial performance. There is no unity among the experts. So the researcher has taken the approaches which he felt appropriate. This research based on fertilizer related commercial activity. The researcher for this study has not covered other aspects of fertilizer industry.

Researcher has tried best to remain faithful and keen but after all being a human, physical constrains may affect the result and as such the result of the analysis may not be percent correct to be relied upon.

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