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An empirical study on the financial appraisal of select fertilizer companies in India

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Abstract
The demand for fertilizer has been growing steadily in India. But the Production of fertilizeris not adequate. A special feature of this industry is continuous production and seasonal consumption. Productivity in agriculture depends on social, technological and economic factors. The consumption pattern of fertilizers also varies due to local and environmental factors. Lack of credit and marketing facilities with respond to agricultural produce are also considered as factors influencing fertilizers consumption of all the factors, finance is the most vital one that affects the performance of fertilizer industry to a maximum extent. Fertilizer units are also facing the problems relating to finance due to various internal and environmental factors. Many industrial units are facing the problem of inappropriate financial structure, poor utilization of assets, inefficient working capital management, absence of costing and pricing, absence of financial planning and budgeting, improper utilization or diversion of funds.
The importance of the fertilizer sector in India need hardly be emphasized as it provides a very vital input for the growth of Indian agriculture and is an inevitable factor that has to be reckoned with in the attainment of the goal of self-sufficiency in food grains. The fertilizer sector would cover not merely the fertilizer industry but also certain activities in the agricultural sector, which are very intimately linked with the production and distribution of fertilizers. The fertilizer industry has to cater to the needs of the farmers who are the most important consumers of the fertilizer industry.

Keywords: credit and marketing facilities, financial structure, working capital management

Introduction
Fertilizer industry is a major driving force behind the economic development of this country in general and agricultural development in particular. The fertilizer industry is aimed at a wide audience from specialists in the industry who need a wider background to new entrants requiring a training resource; governmental and inter-governmental agencies; agricultural administrators in developing countries and the financial community with interests in trading and investment in the industry.

Importance of the Study
The demand for fertilizer has been growing steadily in India. But the Production of fertilizer is not adequate. A special feature of this industry is continuous production and seasonal consumption. Productivity in agriculture depends on social, technological and economic factors. The consumption pattern of fertilizers also varies due to local and environmental factors. Lack of credit and marketing facilities with respond to agricultural produce are also considered as factors influencing fertilizers consumption. Of all the factors, finance is the most vital one that affects the performance of fertilizer industry to a maximum extent.
Fertilizer units are also facing the problems relating to finance due to various internal and environmental factors. Many industrial units are facing the problem of inappropriate financial structure, poor utilization of assets, inefficient working capital management, absence of costing and pricing, absence of financial planning and budgeting, improper utilization or diversion of funds, liquidity problems, inadequate inventory control and credit restraints.
For the purpose of this study, ten fertilizer companies have been selected from both private and public sectors.

Review of Literature
The Union Budget 2009-10 presented that fertilizer remains a prominent sector. Government proposed to include capital investment in fertilizer production as an infrastructure sub-sector as the sector requires higher capital. Also, to ensure greater efficiency, cost effectiveness and better delivery for fertilizers, the Government proposes that it will take move towards direct transfer of cash subsidy to people living below poverty line in a phased manner. Urea is the key focus in the industry, which represents around 50% of all fertilizer products consumed in the country with an annual consumption of 27mt of a total fertilizer consumption of 55mt. During the year 2008-09, the Nutrient Based Subsidy (NBS) policy was successfully implemented for all fertilizers except urea. Thus, government proposes active consideration of the Urea under the extension of the NBS regime. This is a positive move by the government and will benefit both farmers and companies in the industry.

Research and Markets
Agrochemicals Market Global Forecast 2010 – 2015 says that Nitrogenous fertilizers command a large market share of more than 46% but have a comparatively low growth rate. Phosphoric fertilizers have a lower market share but a higher growth rate due to the increase in production by major players.

Objectives of the study

1. To review the growth and development of fertilizer industry at national and international level in general.
2. To analyze and compare the financial performance including operational efficiency of the select fertilizer companies in India.
3. To study the management of working capital of select fertilizer companies in India.
4. To offer suggestions for improving the financial performance including operational efficiency of fertilizer companies in India.

Methodology

Collection of data

The present study is based only on secondary data. The data were collected from the published records of the select fertilizer companies, such as Annual Reports and Government Research Publications. Apart from published records, the data were obtained from books, journals, magazines, government reports, newspapers and websites.

Sampling

In order to analyse the financial performance of fertilizer companies, the details of 56 companies were selected. Based on large scale production of Nitrogen and Phosphatic fertilizers, 25 companies were shortlisted. From those, 16 NSE listed companies were identified of which the following 10 companies were selected under simple random sampling for this study:

1. National Fertilizers Limited (NFL)
2. Fertilizers and Chemicals Travancore Limited (FACT)
3. Rashtriya Chemicals and Fertilizers Limited (RCF)
4. Madras Fertilizers Limited (MFL)
5. Gujarat State Fertilizers and Chemicals Limited (GSFC)
6. Mangalore Chemicals and Fertilizers Limited (MCFL)
7. Nagarjuna Fertilizers Fertilizers and Chemicals Limited (NFCL)
8. Chambal Fertilizers and Chemicals Limited (CFCL)
9. Tata Chemicals Limited (TCL)
10. Zuari Industries Limited (ZIL)

Table 1: Share Capital (Rs. in Crores)

Company	Min. Val.	Max. Val.	Mean	SD	CV (%)	CGR (%)
Madras Fertilizers	162.05	162.14	162.13	0.03	0.02	0.0
National Fertilizers	490.58	490.58	490.58	0.00	0.00	+
FACT	354.77	647.07	403.49	113.78	28.20	4.29
GSFC	79.70	112.74	85.22	12.85	15.08	-2.4
RCF	551.69	551.69	551.69	0.00	0.00	+
Zuari Industries	29.44	29.44	29.44	0.00	0.00	+
Tata Chemicals	180.70	254.82	209.70	28.13	13.41	3.60
Nagarjuna Fertilizers	416.57	465.39	442.48	23.51	5.31	1.21
Mangalore Chemicals	103.36	123.36	118.09	4.99	4.23	0.31
Chambal Fertilizers	406.00	431.00	413.21	7.55	1.83	0.12

***Source*:** Computed from annual reports

The Table 1 showed that the Mean Share Capital ranged from Rs.29.44 crore in Zuari industries to 551.69 crore in Rashtriya Chemicals and Fertilizers Limited (RCF) and the coefficient of variation ranged between 0 to 28.20 % indicating the variations in the performance during the period of study. The higher C.V (28.20 %) in Fertilizers and Chemicals Travancore Limited (FACT) revealed the inconsistent performance in the share capital during the study period. The Compound Growth Rate (4.29%) was higher in the Fertilizers and Chemicals Travancore Limited (FACT) during the study period than all other companies.

We can observe from this data, people had the tendency to invest in the shares of the companies like Fertilizers and Chemicals Travancore Limited (FACT), Tata Chemicals Limited (TCL), Nagarjuna Fertilizers Fertilizers and Chemicals Limited (NFCL), Mangalore Chemicals and Fertilizers Limited (MCFL) and Chambal Fertilizers and Chemicals Limited (CFCL) which had positive growth rate.

Table 2: Reserves (Rs. in Crores)

Company	Min. Val.	Max. Val.	Mean	SD	CV (%)	CGR (%)
Madras Fertilizers	-781.54	-40.97	-376.44	274.37	-72.89	+
National Fertilizers	536.40	1181.60	838.01	203.07	24.23	4.27
FACT	-505.25	219.93	-246.96	245.01	-99.21	+
GSFC	437.13	2748.96	1310.06	652.43	49.80	9.58
RCF	633.41	1460.04	908.02	259.05	28.53	6.37
Zuari Industries	305.94	1190.95	584.63	330.97	56.61	14.87
Tata Chemicals	1370.66	4485.86	2423.16	1085.87	44.81	11.26
Nagarjuna Fertilizers	341.58	841.36	512.52	159.42	31.10	-1.79
Mangalore Chemicals	17.34	280.44	120.19	78.95	65.69	23.46
Chambal Fertilizers	265.32	1207.12	604.50	284.96	47.14	10.69

***Source*:** Computed from annual reports

The Table 2 showed that the Mean Reserves ranged from Rs. -376.44 crore in Madras Fertilizers Limited (MFL) to 2423.16 crore in Tata Chemicals Limited (TCL) and the coefficient of variation ranged between -99.21 to 65.69% indicating the variations in the performance during the period of study. The higher C.V (65.69%) in Mangalore Chemicals and Fertilizers Limited (MCFL) revealed the inconsistent performance in the Reserves during the study period. The Compound Growth Rate (23.46%) was higher in the Mangalore Chemicals and Fertilizers Limited (MCFL) during the study period than all other Companies.

We can observe from the data, Mangalore Chemicals and Fertilizers Limited (MCFL), Tata Chemicals Limited (TCL), Zuari Industries Limited (ZIL) and Chambal Fertilizers and Chemicals Limited (CFCL) had more positive approach in maintaining its reserves.

Table 3: Total Shareholders' funds (Rs. In Crores)

Company	Min. Val.	Max. Val.	Mean	SD	CV (%)	CGR (%)
Madras Fertilizers	-619.40	121.08	-214.31	274.36	-128.02	+
National Fertilizers	1026.98	1672.18	1328.59	203.07	15.28	2.66
FACT	-150.48	574.70	253.96	190.14	74.87	+
GSFC	516.87	2828.66	1395.28	652.32	46.75	8.78
RCF	1185.10	2011.73	1459.71	259.05	17.75	4.00
Zuari Industries	335.38	1220.39	614.07	330.97	53.90	14.05
Tata Chemicals	1551.36	4740.68	2635.74	1109.99	42.11	10.60
Nagarjuna Fertilizers	841.46	1866.96	1414.26	387.89	27.43	5.23
Mangalore Chemicals	120.70	485.11	309.82	109.48	35.34	11.49
Chambal Fertilizers	671.32	1623.33	1018.56	288.13	28.29	6.21

***Source*:** Computed from Annual Reports

The Table 3 showed that the Mean Total Shareholders' Funds ranged from Rs. -214.31 crore in Madras Fertilizers Limited (MFL) to 2635.74 crore in Tata Chemicals Limited (TCL) and the coefficient of variation ranged between -128.02 to 74.87% indicating the variations in the performance during the period of study. The higher C.V (74.87 %) in Fertilizers and Chemicals Travancore Limited (FACT) revealed the inconsistent performance. The Compound Growth Rate (14.05%) was higher in the Zuari Industries Limited (ZIL) during the study period than all other companies.

It is understood from the data that Mangalore Chemicals and Fertilizers Limited (MCFL), Zuari Industries (ZIL), Tata Chemicals Limited (TCL) and Gujarat State Fertilizers and Chemicals Limited (GSFC) show more interest in increasing the shareholders fund.

Null hypothesis

- There is no significant difference in the Mean Amount of Share Capital between lower PAT companies and higher PAT companies.

Table 4: 't'- Tests of Significance Share Capital

Variations	Lower PAT	Higher PAT
Mean	231.124	350.079
SD	182.065	196.359
Mean Difference	-118.955	
Standard Error	119.754	
t – value	-.993 ns	
DF	8	
P	.350	

ns- non significant at 1 % level

The't' test proved that there is no significant difference in the Mean Amount of Share Capital between lower PAT companies and higher PAT companies during the study period. So the Null Hypothesis is proved.

Null Hypothesis

- There is no significant difference in the Mean Amount of Reserves between lower PAT companies and higher PAT companies.

Table 5: 't'- Tests of significance reserves

Variations	Lower PAT	Higher PAT
Mean	118.786	1216.750
SD	433.359	720.719
Mean Difference	-1097.963	
Standard Error	376.085	
t – value	-32.919*	
DF	8	
P	.019	

*- Significant at 5 % level

The't' test proved that there is significant difference in the Mean Reserves between lower PAT companies and higher PAT companies during the study period. So the Null Hypothesis is rejected.

Null Hypothesis

- There is no significant difference in the Mean Amount of Total Shareholders Fund between lower PAT companies and higher PAT companies.

Table 6: 't'- Tests of Significance Total Shareholder Fund

Variations	Lower PAT	Higher PAT
Mean	436.854	1387.796
SD	621.880	890.820
Mean Difference	-950.941	
Standard Error	485.859	
t – value	-1.957 ns	
DF	8	
P	.086	

ns- non significant at 5 % level

The't' test proved that there is no significant difference in the Mean Total Shareholders Fund between lower PAT companies and higher PAT companies during the study period. So the Null Hypothesis is proved.

Findings

- The Mean Share Capital ranged from Rs.29.44 crore in Zuari industries to 551.69 crore in Rashtriya Chemicals and Fertilizers Limited (RCF) and the coefficient of variation ranged between 0 to 28.20 % indicating the variations in the performance during the period of study. The higher C.V (28.20 %) in Fertilizers and Chemicals Travancore Limited (FACT) revealed the inconsistent performance in the share capital during the study period. The Compound Growth Rate (4.29%) was higher in the Fertilizers and Chemicals Travancore Limited (FACT) during the study period than all other companies.
- The Mean Reserves ranged from Rs. -376.44 crore in Madras Fertilizers Limited (MFL) to 2423.16 crore in Tata Chemicals Limited (TCL) and the coefficient of variation ranged between -99.21 to 65.69% indicating the variations in the performance during the period of study. The higher C.V (65.69%) in Mangalore Chemicals and Fertilizers Limited (MCFL) revealed the inconsistent performance in the reserves during the study period. The Compound Growth Rate (23.46%) was higher in the Mangalore Chemicals and Fertilizers Limited (MCFL) during the study period than all other Companies.
- The Mean Total Shareholders Funds ranged from Rs. -214.31 crore in Madras Fertilizers Limited (MFL) to 2635.74 crore in Tata Chemicals Limited (TCL) and the coefficient of variation ranged between -128.02 to 74.87% indicating the variations in the performance during the period of study. The higher C.V (74.87 %) in Fertilizers And Chemicals Travancore Limited (FACT) revealed the inconsistent performance. The Compound Growth Rate (14.05%) was higher in the Zuari Industries Limited (ZIL) during the study period than all other companies.

Suggestions

- Among the select fertilizer companies for the study, the financial position of Zuari Industries Limited (ZIL) is found to be better than other companies. Its share capital position is strong. As the company is able to generate more gross income, it could earn more reserves and surplus. Similarly its current financial position is sound which adds more strength to financial position of the company. As the control on operating expenses and other items helped to maintain the financial position of the company, the existing position can be improved by concentrating more on the same.
- The Tata Chemicals Limited (TCL), another company included in this study shows somewhat better performance. However, the share capital, reserves and surplus and current assets require improvement. In other words, the financial position can be strengthened by reducing the employment of borrowed capital, which would ultimately reduce the interest burden. Moreover, effective utilization of fixed assets may ensure the generation of more income.
- Shareholders funds may be increased by issuing new shares, additional shares etc.

Conclusion

In India, a free economy is not workable in fertilizers with varying investments, varying technology, diverse vintage, different patterns of financing, differing feed stock and input prices, location of manufacturers, consuming areas, freight factors and impossibilities of avoiding exploitation of the farmers. The fertilizer companies would have to adopt themselves to recent developments such as advanced computer technology which not only facilitates convenience of operation but also greatly helps in terms of production efficiency, quality control, safety and environmental standards.

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