

A Financial Ratio Analysis of National Fertilizers Limited

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Abstract:

The purpose of the study is to know about the National Fertilizers Limited. To study the growth of National Fertilizers Limited required data has been collected from “www.nationalfertilizers.com” and “www.moneycontrol.com” from 2012-13 to 2016-17. In the next step, ratios, Mean, Standard Deviation, correlation coefficient for the data of company has been calculated. The fast moving consumer goods (FMCG) segment is the fourth largest sector in the Indian economy. The study conducted is based on the ratio analysis, t-test which helped to analyze the performance of companies in Indian Fertilizer Industry.

KEYWORDS: Growth, Profitability, Ratio.

Introduction to National Fertilizers limited

National Fertilizers limited, a Schedule 'A' & a Mini Ratna (Category-I) Company, having its registered office at New Delhi was incorporated on 23rd August 1974. NFL has five gas based Ammonia-Urea plants viz. Nangal & Bathinda plants in Punjab, Panipat plant in Haryana and two plants at Vijaipur at District Guna, in Madhya Pradesh. The Panipat, Bathinda & Nangal plants were revamped for feed stock conversion from Fuel Oil to Natural Gas, an eco-friendly fuel during 2012-13 / 2013-14. Vijaipur plants of the company were also revamped for energy savings & capacity enhancement during 2012-13, thus increasing its total annual capacity from 20.66 LMT from 17.29 LMT, an increase of 20%. The company currently has a total annual installed capacity of 35.68 LMT (Re-assessed capacity of 32.31 LMT) & is the 2nd largest producer of Urea in the country with a share of about 16% of total Urea production in the country.

Company has a Bio-Fertilizers Plant at Vijaipur with a capacity of 600 tonnes of solid & liquid Bio-Fertilizers to produce three strains of Bio-Fertilizers viz. PSB, Rhizobium and Azotobacter are produced.

Products

National Fertilizers Limited is engaged in manufacturing and marketing of Neem Coated Urea, three strains of Bio-Fertilizers (solid & liquid) and other allied Industrial products like Ammonia, Nitric Acid, Ammonium Nitrate, Sodium Nitrite and Sodium Nitrate. The brand name of the company is popularly known in the market as 'KISAN'.

The company has also started production of certified seeds under its Seeds Multiplication Program for sale under its own brand name as Kisan Beej.

MEANING OF FINANCIAL RATIO

A ratio or financial ratio is a relationship between two accounting figures, expressed mathematically. Ratio Analysis helps to ascertain the financial condition of the firm. In financial analysis, a ratio is compared against a benchmark for evaluating the financial position and performance of a firm. Financial ratios help to

summaries large quantities of financial data to make qualitative judgment about the firm's financial performance. Profitability and liquidity ratios were calculated for present study.

PROFITABILITY RATIOS

The following two profitability ratios are calculated for this study (1) Gross profit ratio, (2) Net profit ratio.

(1) Gross Profit Ratio:

The first ratio in relation to sales is gross profit ratio or gross margin ratio. The ratio can be calculated by

$$\begin{aligned} \text{Gross Profit Ratio} &= \frac{\text{Sales} - \text{Cost of Goods Sold}}{\text{Sales}} \times 100 \\ &= \frac{\text{Gross Profit}}{\text{Sales}} \times 100 \end{aligned}$$

(2) Net Profit Ratio:

Net profit is obtained, after deducting operating expenses, interest and taxes from gross profit. The net profit ratio is calculated by

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

Net profit includes non-operating income so the later may be deducted to arrive at profitability arising from operations.

Liquidity Ratio : The following two liquidity ratios are calculated for this study

- (1) Current ratio
- (2) Liquidity ratio.

(1) Current Ratio

Current ratio is defined as the relationship between current assets and current liabilities. It is also known as working capital ratio. This is calculated by dividing total current assets by total current liabilities.

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

(2) Liquid ratio.

Liquid ratio establishes the relationship between liquid assets and current liabilities. Liquid assets are those that can be converted into cash, quickly, without loss of value. Cash and balance in current account with bank are the most liquid assets.

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

Scope of the Study

The study covers analysis of financial statements of National Fertilizers Limited for the period 2012-2013 to 2016-2017. It can be extended to future period also. With the help of statistical analysis, the forecasting of subsequent years can also be made for particular item such as sales, inventory, profit, etc. The statistical analysis can also be applied to every ratio and by their upon more comprehensive results can be obtained. The statistical analysis can also be applied to other similar companies as well as the industry as a whole in order to know the prevailing situation in the whole industry.

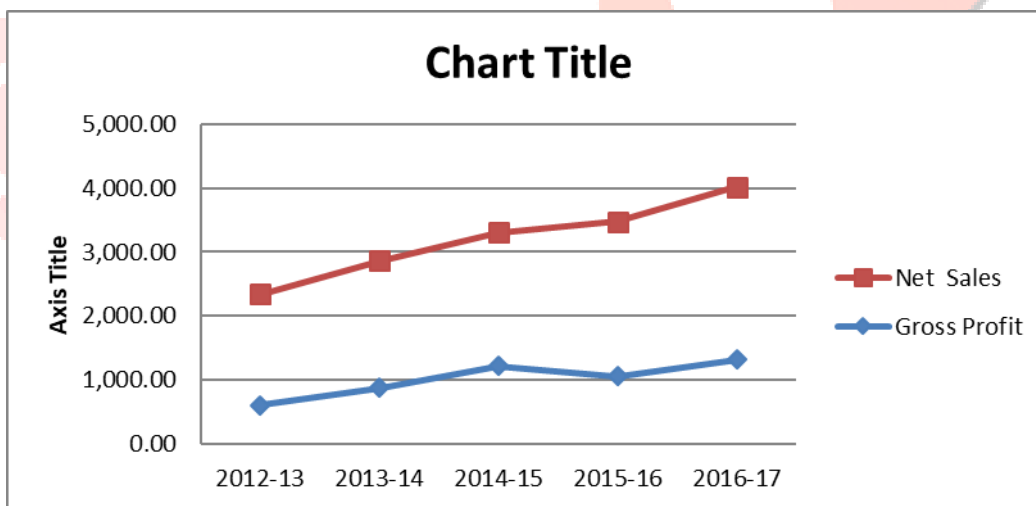
Limitations of Data

1. The study is based on historical data.
2. The study depends on the secondary data obtained from www.nationalfertilizers.com and www.moneycontrol.com, .
3. Accounting techniques used for the study like ratio analysis have its own limitations. It is calculated from past data. So it is no useful to assume the future.
4. Financial statements are primarily based on cost concept. Hence, It cannot give the current position.

Data Analysis:

Gross Profit Ratio

Year	Gross Profit	Net Sales	Ratio
2012-13	608.47	1,727.13	35.23
2013-14	871.49	1,994.84	43.69
2014-15	1,213.76	2,092.06	58.02
2015-16	1,057.01	2,418.41	43.71
2016-17	1,312.53	2,705.07	48.52



Statistical Techniques :

Particulars	Mean	Standard Deviation
Gross Profit	1,012.65	280.9042
Net Sales	2,187.50	380.5803

The correlation coefficient between Gross Profit and Net Sales is 0.84

Testing of Hypothesis:

H_0 : There is no linear correlation between Gross Profit and Net sales.

H_1 : There is linear correlation between Gross Profit and Net sales.

$t_{cal} = 2.68$

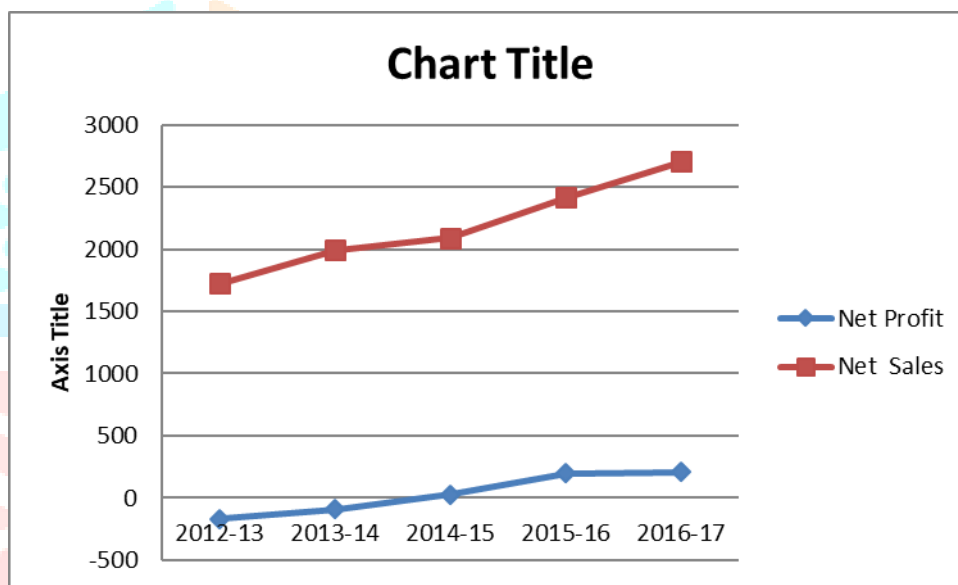
$t_{0.05} = 3.18$

$t_{cal} < t_{0.05}$

we fail to reject the null hypothesis.

Net Profit Ratio

Year	Net Profit	Net Sales	Ratio
2012-13	-170.73	1,727.13	-9.89
2013-14	-89.71	1,994.84	-4.50
2014-15	26.24	2,092.06	1.25
2015-16	197.09	2,418.41	8.15
2016-17	208.16	2,705.07	7.70



Statistical Techniques:

Particulars	Mean	Standard Deviation
Net Profit	34.21	168.9738
Net Sales	2,187.50	380.5803

The correlation coefficient between Net Profit and Net Sales is 0.96

Testing of Hypothesis:

H_0 : There is no linear correlation between Net Profit and Net sales.

H_1 : There is linear correlation between Net Profit and Net sales.

$t_{cal} = 5.84$

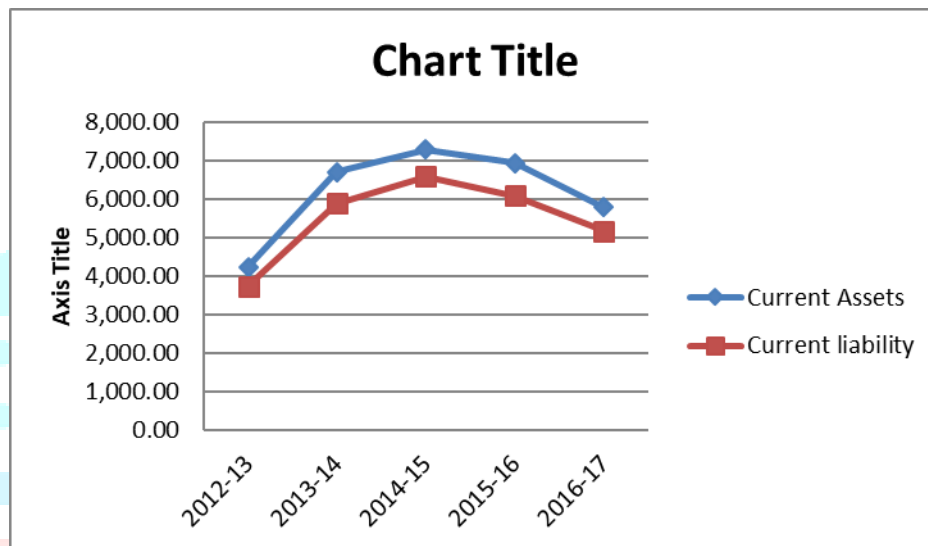
$t_{0.05} = 3.18$

$t_{cal} > t_{0.05}$

The hypothesis is rejected so we can say that there is linear correlation between Net Profit and Net sales.

Current ratio

Year	Current Assets	Current liability	Ratio
2012-13	4,228.56	3,729.50	1.13
2013-14	6,696.84	5,874.85	1.14
2014-15	7,280.18	6,588.12	1.11
2015-16	6,928.62	6,075.12	1.14
2016-17	5,778.34	5,161.53	1.12



Statistical Techniques:

Particulars	Mean	Standard Deviation
Current Assets	6,182.51	1225.497
Current Liabilities	5,485.82	1107.193

The correlation coefficient between current assets and current liability is 0.99

Testing of Hypothesis:

H_0 : There is no linear correlation between Current Assets and Current liability.

H_1 : There is linear correlation between Current Assets and Current liability

$t_{cal} = 23.33$

$t_{0.05} = 3.18$

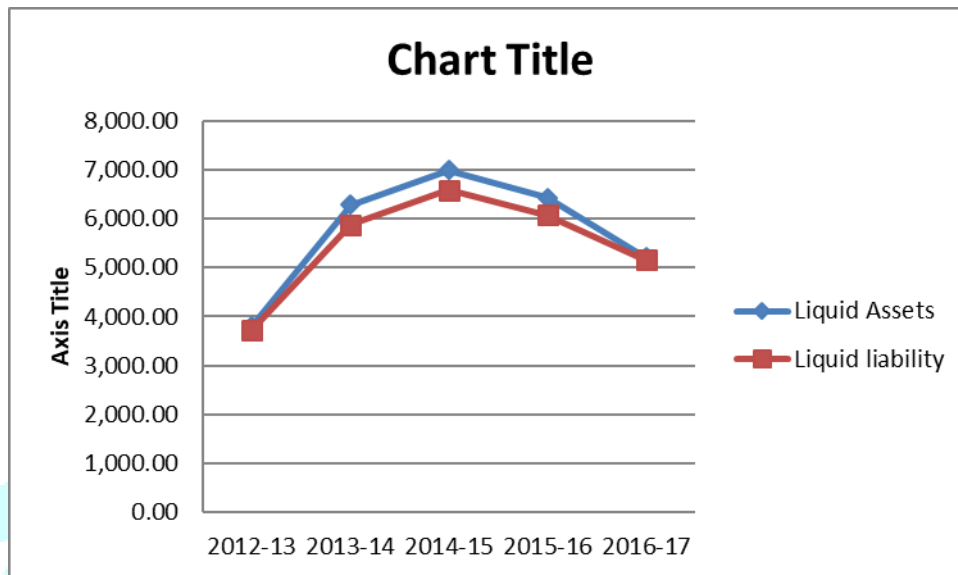
$t_{cal} > t_{0.05}$

The hypothesis is rejected so we can say that there is linear correlation between Current assets and Current liability.

Liquid Ratio

Year	Liquid Assets	Liquid liability	Ratio
2012-13	3,810.95	3,729.50	1.02
2013-14	6,278.59	5,874.85	1.07

2014-15	6,995.18	6,588.12	1.06
2015-16	6,425.31	6,075.12	1.06
2016-17	5,203.19	5,161.53	1.01



Statistical Techniques:

Particulars	Mean	Standard Deviation
Liquid Assets	5,742.64	1259.421
Liquid Liabilities	5,485.82	1107.193

The correlation coefficient between liquid assets and liquid liability is 0.99

Testing of Hypothesis:

H_0 : There is no linear correlation between Liquid Assets and Liquid liability.

H_1 : There is linear correlation between Liquid Assets and Liquid liability.

$$t_{cal} = 21.14$$

$$t_{0.05} = 3.18$$

$$t_{cal} > t_{0.05}$$

The hypothesis is rejected so we can say that there is linear correlation between Liquid assets and Liquid liability.

Conclusion

The gross profit ratio of the company is very high during the last five years. If we conclude only from gross profit we can say that the company is earning a handsome profit. On the other hand if we focus on Net profit ratio it was in negative in nature for 2012-13 and 2013-14 and in rest three years it was also not satisfactory. From this we can say that company is having a huge amount of administrative and financial expenses.

The current ratio of the company is near to 1:1 proportion, which indicated the poor liquid condition of the company but on the other hand the liquid ratio is above 1:1 proportion. Company is having very less amount of inventory in stock. by observing liquid ratio we can say that though current ratio is below 2:1 proportion the company is having good liquid condition.

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