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Research Paper on

A Financial Ratio Analysis of Indian Farmers Fertilizers Cooperative Limited (IFFCO)

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Abstract:

In India, over 50% of the land is under agriculture, employing 60% of the population and contributing to 15% of the GDP. With such excess dependency of agriculture, importance of fertilizer comes naturally. The purpose of the study is to know the financial position of Indian Farmers Fertilizers Cooperative Limited(IFFCO).For this study data has been collected from “www.iffco.in” and “www.moneycontrol.com” from 2007-08 to 2016-17. In the next step, ratios, Mean, Standard Deviation, correlation coefficient for the data of company has been calculated. The study conducted is based on the ratio analysis, t-test which helped to analyze the performance of IFFCO.

KEYWORDS: Growth, Profitability, Ratio.

Introduction of Indian Farmers Fertiliser Cooperative Limited

Indian Farmers Fertiliser Cooperative Limited (IFFCO) is one of India's biggest cooperative society which is wholly owned by Indian Cooperatives.Founded in 1967 with just 57 cooperatives, company is today an amalgamation of over 36,000 Indian Cooperatives with diversified business interests ranging from General Insurance to Rural Telecom apart from their core business of manufacturing and selling fertilisers. With their vast marketing network of over 36,000 cooperative societies company reach more than 5.5 Crores (55 million) farmers in India.

The Marketing Division of IFFCO has the herculean task of providing fertilisers to the corners of India, reaching farmers who live in some of the most challenging terrains and locations in the world. The impact of IFFCO extends across the world with joint ventures like JIFCO- Jordan, KIT-Dubai, OMIFCO-Oman, ICS-Senegal, IFFCO CANADA - Canada. : Global partnership extends with strategic MoUs with several international fertiliser players and other raw material suppliers.

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 IFFCO Limited for the period 2007-08 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.iffco.in 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:

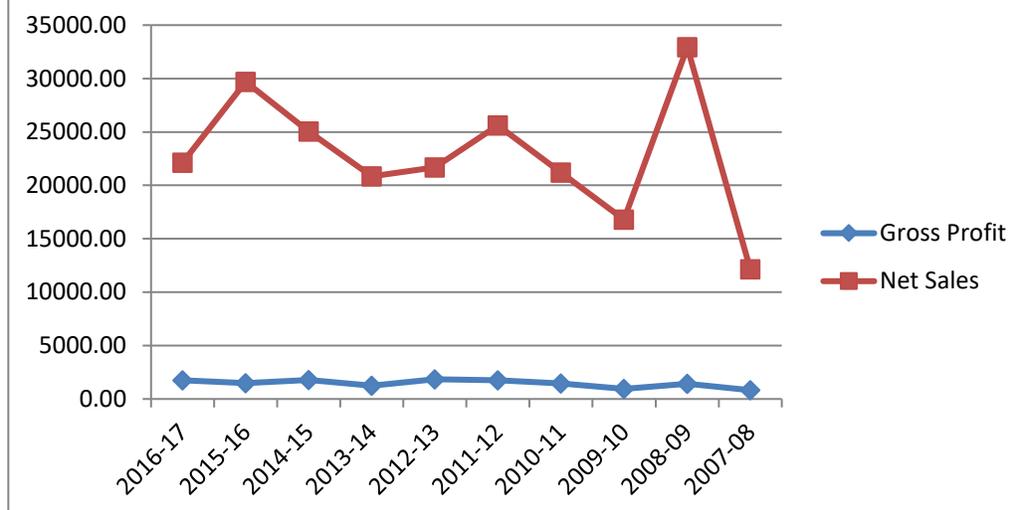
Gross Profit Ratio

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.

| Year | Gross Profit | Net Sales | Gross profit ratio |
|----------------------------|--------------|-----------|--------------------|
| 2016-17 | 1743.17 | 22130.23 | 7.88 |
| 2015-16 | 1488.81 | 29684.98 | 5.02 |
| 2014-15 | 1775.89 | 25047.51 | 7.09 |
| 2013-14 | 1247.36 | 20845.53 | 5.98 |
| 2012-13 | 1847.55 | 21673.36 | 8.52 |
| 2011-12 | 1745.24 | 25598.97 | 6.82 |
| 2010-11 | 1466.37 | 21195.16 | 6.92 |
| 2009-10 | 948.65 | 16808.57 | 5.64 |
| 2008-09 | 1436.55 | 32933.30 | 4.36 |
| 2007-08 | 826.05 | 12162.82 | 6.79 |
| Mean | 1452.56 | 22808.04 | 6.50 |
| SD | 352.92 | 5964.08 | 1.27 |
| Correlation co eff. | 0.58 | | |
| Tcal .05(n-2) | 1.24 | | |



$$t_{cal} = 1.24 \quad t_{0.05} = 3.18 \quad t_{cal} < t_{0.05}$$

We fail to reject Null Hypothesis.

Net Profit Ratio

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.

| Year | Net Profit | Net Sales | Net profit Ratio |
|----------------------------|------------|-----------|------------------|
| 2016-17 | 684.70 | 22130.23 | 3.09 |
| 2015-16 | 705.50 | 29684.98 | 2.38 |
| 2014-15 | 646.87 | 25047.51 | 2.58 |
| 2013-14 | 318.81 | 20845.53 | 1.53 |
| 2012-13 | 728.72 | 21673.36 | 3.36 |
| 2011-12 | 772.18 | 25598.97 | 3.02 |
| 2010-11 | 791.49 | 21195.16 | 3.73 |
| 2009-10 | 401.10 | 16808.57 | 2.39 |
| 2008-09 | 360.01 | 32933.30 | 1.09 |
| 2007-08 | 257.59 | 12162.82 | 2.12 |
| Mean | 566.70 | 22808.04 | 2.53 |
| SD | 207.03 | 5964.08 | 0.82 |
| Correlation co eff. | 0.34 | | |
| Tcal .05(n-2) | 0.62 | | |

$$t_{cal} = 0.62 \quad t_{0.05} = 3.18 \quad t_{cal} < t_{0.05}$$

We fail to reject Null Hypothesis.

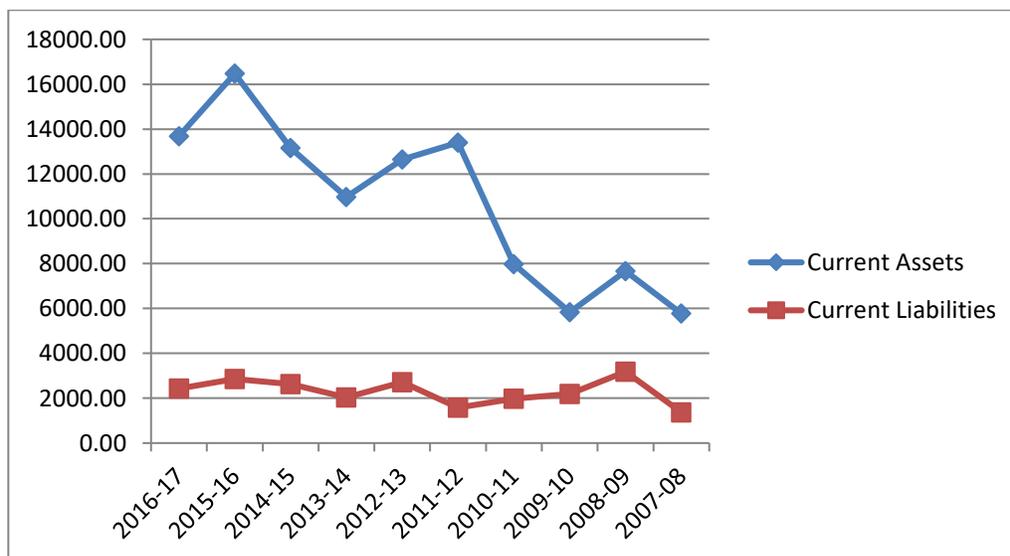
Current ratio

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

| Year | Current Assets | Current Liabilities | Current Ratio |
|----------------------------|----------------|---------------------|---------------|
| 2016-17 | 13683.72 | 2430.50 | 5.63 |
| 2015-16 | 16471.22 | 2854.63 | 5.77 |
| 2014-15 | 13158.16 | 2626.38 | 5.01 |
| 2013-14 | 10965.74 | 2034.46 | 5.39 |
| 2012-13 | 12647.81 | 2719.96 | 4.65 |
| 2011-12 | 13401.29 | 1574.77 | 8.51 |
| 2010-11 | 7979.77 | 1975.19 | 4.04 |
| 2009-10 | 5829.71 | 2191.62 | 2.66 |
| 2008-09 | 7670.76 | 3182.89 | 2.41 |
| 2007-08 | 5774.31 | 1371.57 | 4.21 |
| Mean | 10758.25 | 2296.20 | 4.83 |
| SD | 3710.91 | 573.74 | 1.73 |
| Correlation co eff. | 0.34 | | |
| Tcal .05(n-2) | 0.62 | | |



$t_{cal} = 0.62$

$t_{0.05} = 3.18$

$t_{cal} < t_{0.05}$

We fail to reject Null Hypothesis.

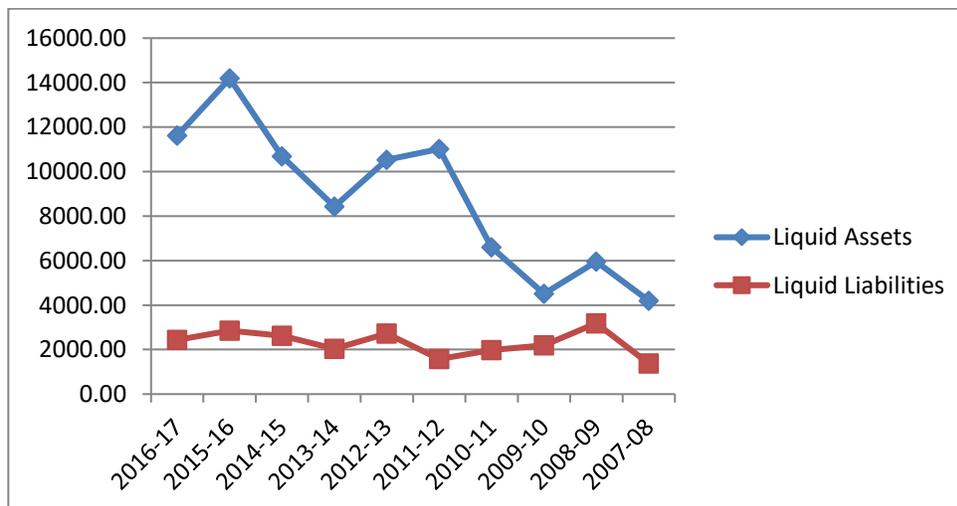
Liquid Ratio

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.

| Year | Liquid Assets | Liquid Liabilities | Liquid Ratio |
|----------------------------|---------------|--------------------|--------------|
| 2016-17 | 11617.79 | 2430.50 | 4.78 |
| 2015-16 | 14187.51 | 2854.63 | 4.97 |
| 2014-15 | 10689.37 | 2626.38 | 4.07 |
| 2013-14 | 8422.66 | 2034.46 | 4.14 |
| 2012-13 | 10526.25 | 2719.96 | 3.87 |
| 2011-12 | 11023.39 | 1574.77 | 7.00 |
| 2010-11 | 6597.13 | 1975.19 | 3.34 |
| 2009-10 | 4514.74 | 2191.62 | 2.06 |
| 2008-09 | 5952.00 | 3182.89 | 1.87 |
| 2007-08 | 4197.00 | 1371.57 | 3.06 |
| Mean | 8772.78 | 2296.20 | 3.92 |
| SD | 3351.75 | 573.74 | 1.50 |
| Correlation co eff. | 0.35 | | |
| Tcal .05(n-2) | 0.66 | | |



$$t_{cal} = 0.66 \quad t_{0.05} = 3.18 \quad t_{cal} < t_{0.05}$$

We fail to reject Null Hypothesis.

Conclusion

The gross profit ratio and net profit ratio of the company is very much lower. But we found very less gap between both ratios. Company is very efficient about its administrative and financial expenses. From 2012-13 the gross profit ratio is continuously decreasing. it is a serious matter to think. Both liquidity ratios are indicating a higher liquid position of the company. Average Current ratio of the company is 4.83 and Average liquid ratio of the company is 3.92.

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