A STUDY ON FINANCIAL PERFORMANCE OF TOP FIVE SUGAR COMPANIES IN INDIA

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Abstract
The Sugar industry is the second largest agro based industry in India. The contribution of sugar industry is very high in economy of India. The growth and development of sugar industry is increasing speedily in India. That's why the researcher has planned to analyze the financial performance of sugar companies in India. The researcher has selected top five sugar companies based on net profit. The researcher has used secondary data and applied ANOVA test as a statistical tool to analyze the collected data. The study concludes that there is significant difference in selected sugar companies with regard to profitability, liquidity, activity and solvency ratios.

Keywords: Sugar Industry, Financial Performance, Ratio Analysis

INTRODUCTION:
Sugarcane and sugar play an important role in economy, trade and livelihood of India. The Sugar industry is India's second largest agro based industry after Cotton industry. The first sugar mill was established in the year 1903 in Pratappur area, Deoria district in India. Sugar industry is an agro-based industry in India that impacts rural living of about 50 million sugarcane farmers and about 5 lakh workers are directly employed in sugar mills. India is the largest country in both the world's largest sugar producer and consumer in the year 2021-2022. From many years, it was on second position after Brazil in production of sugar. Moreover, it has also became the world's second largest exporter of sugar with producing more than 5000 Lakh Metric Tonne (LMT) sugarcane.

The Financial performance:
Financial performance analysis is an approach to evaluating an organization's financial performance. It includes analysis and interpretation of financial statements. For the purpose of decision making process, the one has to analyse the financial statements of the company. There are various approaches for financial performance analysis like trend analysis, horizontal analysis, vertical analysis, ratio analysis etc.

REVIEW OF LITERATURE:
(S.V.Revathi, 2013) The researcher has presented a research paper on growth and productivity of sugar companies of India. The researcher has selected total 34 companies to analyse the data. They have collected the data for the year 2001-2002 to 2010-2011. The researcher has used tools like Annual compound growth rate, trend analysis by method of least squares. Moreover, Multiple Regression analysis was also used by the researcher. The researcher concluded that the growth of the northern region has positive growth than that of the southern region of India.

(KARPAGALAKSHMI, 2018) The researcher has analyzed Liquidity ratios, Managerial Efficiency ratios, Profitability ratios, and Solvency ratios to ascertain the financial performance of the sugar companies in India. one way ANOVA has been used to analyse the data. A finite sample size of five sugar companies was selected for the purpose of the study.

(Rooh Ollah Arab, 2015) This research present paper examines the financial performance of selected companies of the steel industry in India in terms of financial ratios such as Liquidity, Solvency, Activity and Profitability position.

OBJECTIVE OF THE STUDY:

- To measure the financial performance of selected sugar companies of India during the study period.
- To make analysis of profitability, liquidity, Solvency and activity ratios of selected companies during...
the study period.

**HYPOTHESIS OF THE STUDY:**

The following hypotheses are framed and tested under the Study:

- **H₁:** There is no significant difference in the financial performance of selected sugar companies in India with regard to profitability ratios during the Study period.
- **H₂:** There is no significant difference in the financial performance of selected sugar companies in India with regard to liquidity ratios during the Study period.
- **H₃:** There is no significant difference in the financial performance of selected sugar companies in India with regard to activity ratios during the Study period.
- **H₄:** There is no significant difference in the financial performance of selected sugar companies in India with regard to solvency ratios during the Study period.

**DATA COLLECTION:**

The study is totally based on secondary data which is collected from the annual reports of various sugar companies, published materials in books and reports and different websites.

**PERIOD OF THE STUDY:**

The present research work is carried out for the period of ten years starting from 2012-13 to 2021-22.

**SAMPLE OF THE STUDY:**

In India, there are total 57 sugar companies. Out of them 35 companies were listed in Bombay Stock Exchange of India (BSE). Among these 35 companies, top 5 companies based on Net Profit were selected for the Study. The selected top 5 companies’ name are as under:

1. Balrampur Chini Mills Limited
2. Triveni Engineering and Industries Limited
3. Dalmia Bharat Sugar and Industries Limited
4. EID Parry
5. The Andhra Sugar Limited

**STATISTICAL TOOL:**

To measure the performance analysis of selected sugar companies of India, in terms of Profitability, Liquidity, Activity and Solvency position of the companies, ratio analysis method has been used. Furthermore, one way ANOVA - Analysis of Variance has been used.

**Analysis of Profitability:**

Profit is the heart of business and every investor, stakeholder, creditor, customer, government, employee and etc. are keen to know about the profitability of the company. To measure the profitability of selected companies in India, the researcher has analysed the following profitability ratios:

- **Gross Profit Ratio:** One can use it to determine the profit a company made by selling its goods and services after deducting its direct costs.
- **Operating profit ratio:** It is used to determine the relationship between the operating profit and the net sales.
- **Net profit ratio:** The net profit ratio shows the relationship of after-tax profits to net sales. It shows the remaining profit after company's all costs have been deducted from the sales.
- **EPS:** EPS Stands for Earning per Share. It is calculated by dividing the net profit or less available to equity shareholder to equity shareholders.
- **Return on capital employed ratio:** Return on Capital employed is also known as ROCE. It is a financial ratio which shows the profitability and efficiency of its capital employed.

**ANOVA of Profitability:**

<table>
<thead>
<tr>
<th>ANOVA of profitability</th>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>F Critical</th>
<th>Result of ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Profit ratio</td>
<td>Between Groups</td>
<td>518.3433</td>
<td>4</td>
<td>129.58</td>
<td>5.6268</td>
<td>2.5787</td>
<td>Ho rejected</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>1036.338</td>
<td>45</td>
<td>23.029</td>
<td></td>
<td></td>
<td>Ho rejected</td>
</tr>
</tbody>
</table>
Interest has Debt obligations. A

Analysis

Ratio

ANOVA

sales

generating. The researcher has analyzed the following activity ratios of

Activity ratios are important to determine the

Current ratio: The current ratio is a liquidity ratio which measures company's ability to pay short-term
debts within one year.

Quick ratio: It is also known as acid test ratio or liquidity ratio. It measures company's capacity to pay its
current debts or liabilities without selling its inventory or obtaining any other financials.

ANOVA of Liquidity Ratio:

<table>
<thead>
<tr>
<th>ANOVA of Liquidity</th>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>F Critical</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Current Ratio</td>
<td>Between Groups</td>
<td>15.6724</td>
<td>4</td>
<td>3.9183</td>
<td>24.637</td>
<td>2.5787</td>
<td>Ho is rejected</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>7.15688</td>
<td>45</td>
<td>0.1590</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>22.8303</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quick Ratio</td>
<td>Between Groups</td>
<td>7.90380</td>
<td>4</td>
<td>1.9759</td>
<td>45.159</td>
<td>2.5787</td>
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<tr>
<td></td>
<td>Within Groups</td>
<td>1.96897</td>
<td>45</td>
<td>0.0437</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>9.87277</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: Computed

Analysis of Activity Ratio:

Activity ratios are important to determine the efficiency of the firm in utilization of its assets for generating cash and revenue. It is used to check the level of investment made in the asset and the revenue that it is generating. The researcher has analyzed the following activity ratios of selected companies:

Stock Turnover Ratio: It reveals the relationship between the stock or inventory in the business and cost of the goods sold.

Asset Turnover Ratio: Asset turnover ratio is the ratio between the value of a organization’s revenues or sales and the value of its assets.

ANOVA of Activity Ratio:

<table>
<thead>
<tr>
<th>ANOVA of Activity</th>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>F Critical</th>
<th>Result of ANOVA</th>
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</thead>
<tbody>
<tr>
<td>Stock Turnover Ratio</td>
<td>Between Groups</td>
<td>22.5309</td>
<td>4</td>
<td>5.63274</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>28.2627</td>
<td>45</td>
<td>0.62806</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>50.7937</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Asset Turnover Ratio</td>
<td>Between Groups</td>
<td>12164.5</td>
<td>4</td>
<td>3041.1</td>
<td>3.04527</td>
<td>2.5783</td>
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<td></td>
<td>Within Groups</td>
<td>44939.0</td>
<td>45</td>
<td>998.644</td>
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<td></td>
<td>Total</td>
<td>57103.5</td>
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</tbody>
</table>

Source: Computed

Analysis of Solvency Ratio:

A solvency ratio is a metric used to measure an business’s ability to reach its long-term financial debt obligations. The researcher has analysed the following solvency ratios of selected companies:

Debt Equity Ratio: The debt-to-equity ratio also known as D/E ratio which shows how much debt a company has compared to its total assets.

Interest Coverage Ratio: The interest coverage ratio is calculated by dividing a firm’s earnings before interest and taxes (EBIT) by its interest expense during a given period.
### ANOVA of Solvency Ratio:

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>F Critical</th>
<th>Result ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt to Equity Ratio</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Between Groups</td>
<td>8.15317</td>
<td>4</td>
<td>2.03829</td>
<td>7.19881</td>
<td>2.57873</td>
<td>Ho is rejected</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12.7414</td>
<td>45</td>
<td>0.28314</td>
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<tr>
<td>Total</td>
<td>20.8946</td>
<td>49</td>
<td></td>
<td>7.19881</td>
<td>2.57873</td>
<td>Ho is rejected</td>
</tr>
<tr>
<td>Interest Coverage Ratio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>277.332</td>
<td>4</td>
<td>69.3331</td>
<td>2.57873</td>
<td>2.57873</td>
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</tr>
<tr>
<td>Within Groups</td>
<td>1363.68</td>
<td>45</td>
<td>30.304</td>
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<tr>
<td>Total</td>
<td>1641.01</td>
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</table>

Source: Computed

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**FINDINGS:**

From the given data analysis, it is clear that the null hypothesis of only two ratios - Return on Capital Employed and Interest Coverage Ratio is accepted. It indicates that there is no significant difference in selected sugar companies of India during the study period regarding Return on Capital Employed Ratio and Interest Coverage Ratio. All the other null hypotheses of profitability, liquidity, solvency and activity ratio are rejected as the critical value is less than calculated F value. It indicates that there is significant difference related to these ratios in selected companies of India during the study period.

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**CONCLUSION:**

The present study deals with the analysis of financial performance of selected sugar companies of India. After analyzing the financial performance through ratio analysis, it concludes that there is significant difference in selected sugar companies in India in terms of profitability, liquidity, solvency and activity ratios. Apart all that, the market for sugar industry is growing well in India and the Indian Sugar industry has made a remarkable impact on the world too as it has become world’s largest sugar exporter by exporting 11 million tons in 2022.

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**BIBLIOGRAPHY:**


