Profitability Analysis of A Large Enterprise - A Case study of Tulasi Seeds Private Limited

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ABSTRACT

Owners and Managers are naturally interested in financial soundness of their Business Enterprise. Financial soundness can be measured in terms of operating efficiency. Operating efficiency of an enterprise means its ability to earn adequate returns to owners and depends ultimately on the profits earned by the enterprise. The profitability of an enterprise is measured by profitability ratios. In this paper, an attempt is made to do Profitability Analysis of Tulasi Seeds Private Limited. Tulasi Seeds Private Limited is a flagship company in Tulasi group of companies. Tulasi Seeds Private Limited is producing seeds. This was established in the year 1992 near Guntur in the state of Andhra Pradesh. Profitability analysis was done through analyzing various profit margins, Profitability ratios relating to investments and Profitability ratios relating to various expenses. Profit margins covered include Gross Profit Margin, Operating Profit Margin and Net Profit Margin. Profitability ratios relating to investments include Return on Assets (ROA), Return on Capital Employed (ROCE) and Return on Share holder’s equity (ROSE). Profitability ratios relating to various expenses include Cost of Goods sold Ratio, Operating Expenses Ratio, Administrative Expenses Ratio, Selling Expenses Ratio and Financial Expenses Ratio. Chi-square test is used for testing the hypotheses formed.

1. Introduction

Owners and Managers are naturally interested in financial soundness of their Business Enterprise. Financial soundness can be measured in terms of operating efficiency. Operating efficiency of an enterprise means its ability to earn adequate returns to owners and depends ultimately on the profits earned by the enterprise. The profitability of an enterprise is measured by profitability ratios. There are three important profitability ratios namely profitability ratios relating to sales, profitability ratios relating to investment and profitability ratios relating to expenses. In this paper, an attempt is made to do Profitability Analysis of Tulasi Seeds Private Limited. Tulasi Seeds Private Limited is a flagship company in Tulasi group of companies. Tulasi Seeds Private Limited is producing seeds. This was established in the year 1992 near Guntur in the state of Andhra Pradesh. Since then, the company has been focusing on research in cotton hybrid seeds and today TSPL stands among the top four cotton seed companies in India. This Company has an annual turnover of Rs. 16600.66 lakhs. The total assets of the company are Rs. 33040.7 lakhs and total liabilities are Rs. 33040.7 lakhs as per 2015-16 Accounts.

2. Review of Literature


3. Objectives

The general objective of the study is to do Profitability Analysis of Tulasi Seeds Private Limited. The specific objectives include the following.

1. To examine Gross profit margin, Operating profit margin and Net Profit Margin of Tulasi Seeds Private Limited during the period of study.
2. To investigate into various profitability ratios relating to investment in Tulasi Seeds Private Limited during the period of study.
3. To analyze various profitability ratios related to expenses in Tulasi Seeds Private Limited during the period of study.
4. To examine the overall profitability of Tulasi Seeds Private Limited during the period of study.
5. To offer suggestions for improvement of profitability of the Enterprise, if required.

4. Hypotheses

Ho₁: Gross Profit Margin of Tulasi Seeds Private Limited is uniform during the period of study.
H₀₂: Operating Profit Margin of Tulasi Seeds Private Limited is uniform during the period of study.
H₀₃: Net Profit Margin of Tulasi Seeds Private Limited is uniform during the period of study.
H₀₄: Return on Assets (ROA) in Tulasi Seeds Private Limited is uniform during the period of study.
H₀₅: Return on Capital Employed (ROCE) in Tulasi Seeds Private Limited is uniform during the period of study.
H₀₆: Return on Shareholder’s equity (ROSE) in Tulasi Seeds Private Limited uniform during the period of study.
H₀₇: Cost of Goods sold Ratio in Tulasi Seeds Private Limited is uniform during the period of study.
H₀₈: Operating Expenses Ratio in Tulasi Seeds Private Limited is uniform during the period of study.
H₀₉: Administrative Expenses Ratio in Tulasi Seeds Private Limited is uniform during the period of study.
H₁₀: Selling Expenses Ratio in Tulasi Seeds Private Limited is uniform during the period of study.
H₁₁: Financial Expenses Ratio in Tulasi Seeds Private Limited is uniform during the period of study.

5. Methodology

The present study is mainly based on secondary data. The data is taken from the financial statements including balance sheet, trading account and profit and loss account of Tulasi Seeds Private Limited. The period of study is ten years covering the financial years from 2006-07 to 2015-16. The data gathered is analyzed through the ratios relating to profitability of the enterprise. Profitability analysis was done through analyzing various profit margins, Profitability ratios relating to investments and Profitability ratios relating to various expenses. Profit margins covered include Gross Profit Margin, Operating Profit Margin and Net Profit Margin. Profitability ratios relating to investments include Return on Assets (ROA), Return on Capital Employed (ROCE) and Return on Shareholder’s equity (ROSE). Profitability ratios relating to various expenses include Cost of Goods sold Ratio, Operating Expenses Ratio, Administrative Expenses Ratio, Selling Expenses Ratio and Financial Expenses Ratio. Chi-square test is used for testing the hypotheses formed.

6. Profitability Analysis with Profit Margins

Profit Margins are based on the assumption that an Enterprise should earn sufficient profit on each Rupee of sales.

**Gross Profit Margin**

Gross Profit Margin has varied between 49.2 and 69.8 during the period of study. A high Gross Profit Margin is indicating that management is making good efforts in reducing cost of production. It is found in the significance test that Gross Profit Margin is uniform during the period of study.
The significance test that Net Profit Margin is not uniform during the period of study. Operating Profit Margin is relatively lower indicating that the management is not effectively controlling its operating costs. It had shown wide fluctuations. It is found in the significance test that Operating Profit Margin is not uniform during the period of study.

### Table-1: Gross Profit Margin

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</tr>
</thead>
<tbody>
<tr>
<td>Gross Profit</td>
<td>1987</td>
<td>5358.1</td>
<td>9122.8</td>
<td>16740.9</td>
<td>12412</td>
<td>12866.9</td>
<td>15095.5</td>
<td>12408</td>
<td>13770.2</td>
<td>8958.5</td>
</tr>
<tr>
<td>Sales</td>
<td>2846.6</td>
<td>8433.0</td>
<td>14201.0</td>
<td>17141.2</td>
<td>19600.9</td>
<td>20899.3</td>
<td>22867.6</td>
<td>25198.6</td>
<td>21013.9</td>
<td>16600.7</td>
</tr>
<tr>
<td>Gross Profit Margin</td>
<td>69.8</td>
<td>63.5</td>
<td>64.2</td>
<td>62.7</td>
<td>63.3</td>
<td>61.7</td>
<td>66.0</td>
<td>49.2</td>
<td>65.5</td>
<td>54.0</td>
</tr>
</tbody>
</table>


Calculated value of Chi-Square for Gross Profit Margin = 5.3. Calculated value is less than critical Value at 5% level of Significance i.e., 5.3<16.919, Hence, H₀₁ is Accepted.

### Operating Profit Margin

Calculated value of Chi-Square for Operating Profit Margin = 20.7. Calculated value is greater than critical Value at 5% level of Significance i.e., 20.7>16.919, Hence, H₀₂ is Rejected.

### Net Profit Margin

Calculated value of Chi-Square for Net Profit Margin = 25.0. Calculated value is greater than critical Value at 5% level of Significance i.e., 25.0>16.919, Hence, H₀₃ is Rejected.

7. **Profitability Analysis with Profitability Ratios related to Investment**

Profitability ratios relating to investment are based on the assumption that an Enterprise should earn good profit on its investment.

### Table-2: Operating Profit Margin

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</tr>
</thead>
<tbody>
<tr>
<td>EBIT</td>
<td>266.1</td>
<td>902.6</td>
<td>1238.2</td>
<td>1692.8</td>
<td>1963.6</td>
<td>3244.1</td>
<td>3336.7</td>
<td>1342.5</td>
<td>1099.4</td>
<td>3658.5</td>
</tr>
<tr>
<td>Sales</td>
<td>2846.6</td>
<td>8433.0</td>
<td>14201.0</td>
<td>17141.2</td>
<td>19600.9</td>
<td>20899.3</td>
<td>22867.6</td>
<td>25198.6</td>
<td>21013.9</td>
<td>16600.7</td>
</tr>
<tr>
<td>Operating Profit Margin</td>
<td>9.3</td>
<td>10.7</td>
<td>8.7</td>
<td>9.9</td>
<td>10.0</td>
<td>15.5</td>
<td>14.6</td>
<td>5.3</td>
<td>5.2</td>
<td>22.0</td>
</tr>
</tbody>
</table>


Operating Profit Margin has varied between 5.2 and 22.0 during the period of study. Net Profit Margin is high only during 2016 indicating better management. Positive Net Profit Margin indicates that the firm is covering its financial expenses. It is found in the significance test that Net Profit Margin is not uniform during the period of study.

### Table-3: Net Profit Margin

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</tr>
</thead>
<tbody>
<tr>
<td>Net Profit</td>
<td>74.1</td>
<td>450.9</td>
<td>500.9</td>
<td>851.6</td>
<td>985.8</td>
<td>1768.7</td>
<td>1902.8</td>
<td>390.4</td>
<td>515.4</td>
<td>2476.6</td>
</tr>
<tr>
<td>Sales</td>
<td>2846.6</td>
<td>8433.0</td>
<td>14201.0</td>
<td>17141.2</td>
<td>19600.9</td>
<td>20899.3</td>
<td>22867.6</td>
<td>25198.6</td>
<td>21013.9</td>
<td>16600.7</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>2.6</td>
<td>5.3</td>
<td>3.5</td>
<td>5.0</td>
<td>5.0</td>
<td>8.5</td>
<td>8.3</td>
<td>1.5</td>
<td>2.5</td>
<td>14.9</td>
</tr>
</tbody>
</table>


Net Profit Margin has varied between 1.5 and 14.9 during the period of study. Net Profit Margin is high only during 2016 indicating better management. Positive Net Profit Margin indicates that the firm is covering its financial expenses. It is found in the significance test that Net Profit Margin is not uniform during the period of study.

### Table-4: Return on Assets (ROA)

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</thead>
<tbody>
<tr>
<td>Net Profit</td>
<td>74.1</td>
<td>450.9</td>
<td>500.9</td>
<td>851.6</td>
<td>985.8</td>
<td>1768.7</td>
<td>1902.8</td>
<td>390.4</td>
<td>515.4</td>
<td>2476.6</td>
</tr>
<tr>
<td>Average Total Assets</td>
<td>1232.6</td>
<td>2084.2</td>
<td>4607.9</td>
<td>7209.6</td>
<td>6034.9</td>
<td>25454.9</td>
<td>26681.3</td>
<td>34855.3</td>
<td>30314.9</td>
<td>33040.7</td>
</tr>
<tr>
<td>ROA</td>
<td>6.0</td>
<td>21.6</td>
<td>10.9</td>
<td>11.8</td>
<td>16.3</td>
<td>6.9</td>
<td>7.1</td>
<td>1.1</td>
<td>1.7</td>
<td>7.5</td>
</tr>
</tbody>
</table>


Return on Assets (ROA)

Return on Assets Ratio has varied between 1.1 and 21.6 during the period of study. It is found in the significance test that Return on Assets Ratio is not uniform during the period of study. Return on Assets Ratio is less than 10 during six years of the study which indicates that there is further scope for better profitability management during these six years.

### Return on Capital Employed (ROCE)

Return on capital employed has varied between 3.6 and 43.3 during the period of study. It is found in the significance test that Return on capital employed is not uniform during the
period of study. Return on Capital Employed is less than 20 during the last five years of the study which indicates that there is further scope for better profitability management during these five years.

Table-5: Return on Capital Employed (ROCE)

(Figures in Lakhs)

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</thead>
<tbody>
<tr>
<td>EBIT</td>
<td>266.1</td>
<td>902.6</td>
<td>1238.2</td>
<td>1692.8</td>
<td>1963.6</td>
<td>3244.1</td>
<td>3336.7</td>
<td>1342.5</td>
<td>1099.4</td>
<td>3658.5</td>
</tr>
<tr>
<td>Average Total Capital</td>
<td>1323.6</td>
<td>2084.2</td>
<td>4607.9</td>
<td>7209.6</td>
<td>6034.9</td>
<td>25454.9</td>
<td>26681.3</td>
<td>34859.3</td>
<td>30314.9</td>
<td>33040.7</td>
</tr>
<tr>
<td>DOL</td>
<td>21.6</td>
<td>43.3</td>
<td>26.9</td>
<td>23.5</td>
<td>32.5</td>
<td>12.7</td>
<td>12.5</td>
<td>3.9</td>
<td>3.6</td>
<td>11.1</td>
</tr>
</tbody>
</table>


Calculated value of Chi-Square for ROCE = 76.8. Calculated value is greater than critical Value at 5% level of Significance i.e., 76.8>16.919, Hence, H<sub>0</sub> is Rejected.

Return on Share Holders’ Equity (ROSE)

Table-6: Return on Share Holders’ Equity (ROSE)

(Figures in Lakhs)

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</thead>
<tbody>
<tr>
<td>Net Profit</td>
<td>74.1</td>
<td>450.9</td>
<td>500.9</td>
<td>851.6</td>
<td>985.8</td>
<td>1768.7</td>
<td>1902.8</td>
<td>390.4</td>
<td>515.4</td>
<td>2476.6</td>
</tr>
<tr>
<td>Average Share Holders’ Equity</td>
<td>244.3</td>
<td>764.2</td>
<td>1537.1</td>
<td>2388.7</td>
<td>2202.1</td>
<td>4833.7</td>
<td>7638.5</td>
<td>8560.1</td>
<td>9075.5</td>
<td>11552.1</td>
</tr>
<tr>
<td>ROSE</td>
<td>30.3</td>
<td>59.0</td>
<td>32.6</td>
<td>35.7</td>
<td>44.8</td>
<td>36.6</td>
<td>24.9</td>
<td>4.6</td>
<td>5.7</td>
<td>21.4</td>
</tr>
</tbody>
</table>


Calculated value of Chi-Square for ROSE = 83.8. Calculated value is greater than critical Value at 5% level of Significance i.e., 83.8>16.919, Hence, H<sub>0</sub> is Rejected.

8. Profitability Analysis with Profitability Ratios related to Expenses

These ratios are based on the assumption that Enterprise should reduce its expenses in relation to sales.

Table-7: Cost of Goods Sold Ratio

(Figures in Lakhs)

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</thead>
<tbody>
<tr>
<td>Cost of Goods sold</td>
<td>859.6</td>
<td>3074.9</td>
<td>5078.2</td>
<td>6400.3</td>
<td>7188.9</td>
<td>8012.4</td>
<td>7772.1</td>
<td>12790.6</td>
<td>7243.7</td>
<td>7642.2</td>
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<tr>
<td>Sales</td>
<td>2846.6</td>
<td>8433.0</td>
<td>14201.0</td>
<td>17141.2</td>
<td>19600.9</td>
<td>20899.3</td>
<td>22867.6</td>
<td>25198.6</td>
<td>21013.9</td>
<td>16600.7</td>
</tr>
<tr>
<td>Ratio</td>
<td>30.2</td>
<td>36.5</td>
<td>35.8</td>
<td>37.3</td>
<td>36.7</td>
<td>38.3</td>
<td>34.0</td>
<td>50.8</td>
<td>34.5</td>
<td>46.0</td>
</tr>
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</table>


Calculated value of Chi-Square for Cost of Goods sold Ratio = 8.6. Calculated value is less than critical Value at 5% level of Significance i.e., 8.6<16.919, Hence, H<sub>0</sub> is Accepted.

Cost of Goods Sold Ratio

Cost of Goods Sold Ratio has varied between 30.2 and 50.8 during the period of study. A low Cost of Goods Sold Ratio is indicating that management is making good efforts in reducing cost of production. It is found in the significance test that Cost of Goods Sold Ratio is uniform during the period of study.

Operating Expenses Ratio

Table-8: Operating Expenses Ratio

(Figures in Lakhs)

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</thead>
<tbody>
<tr>
<td>Operating Expenses</td>
<td>1296.7</td>
<td>2978.5</td>
<td>4531.9</td>
<td>5616.8</td>
<td>6490.0</td>
<td>8508.8</td>
<td>10240.1</td>
<td>8930</td>
<td>10428.8</td>
<td>5109.3</td>
</tr>
<tr>
<td>Sales</td>
<td>2846.6</td>
<td>8433.0</td>
<td>14201.0</td>
<td>17141.2</td>
<td>19600.9</td>
<td>20899.3</td>
<td>22867.6</td>
<td>25198.6</td>
<td>21013.9</td>
<td>16600.7</td>
</tr>
<tr>
<td>Ratio</td>
<td>45.6</td>
<td>35.3</td>
<td>31.9</td>
<td>32.8</td>
<td>33.1</td>
<td>40.7</td>
<td>44.8</td>
<td>35.4</td>
<td>49.6</td>
<td>30.8</td>
</tr>
</tbody>
</table>


Calculated value of Chi-Square for Operating Expenses Ratio = 10.5. Calculated value is less than critical Value at 5% level of Significance i.e., 10.5<16.919, Hence, H<sub>0</sub> is Accepted.

Operating Expenses Ratio has varied between 30.8 and 49.6 during the period of study. A relatively high Operating Expenses Ratio is indicating that management should make efforts to reduce Operating expenses. It is found in the significance test that Operating Expenses Ratio is uniform during the period of study.

Administrative Expenses Ratio

Administrative Expenses Ratio has varied between 3.4 and 11.8 during the period of study. A low Administrative Expenses Ratio is indicating that management is making good efforts in reducing Administrative expenses. It is found in the significance test that Administrative Expenses Ratio is uniform during the period of study.
## Calculated value of Chi-Square for Selling Expenses Ratio = 8.8.
Calculated value is less than critical Value at 5% level of Significance i.e., 8.8<16.919, Hence, \( H_{10} \) is Accepted.

### Financial Expenses Ratio

Calculated value of Chi-Square for Financial Expenses Ratio = 7.2.
Calculated value is less than critical Value at 5% level of Significance i.e., 7.2<16.919, Hence, \( H_{11} \) is Accepted.

## 9. Conclusion

Gross Profit Margin, Cost of Goods sold Ratio, Operating Expenses Ratio, Administrative Expenses Ratio, Selling Expenses Ratio and Financial Expenses Ratio are uniform during the period of study. Operating Profit Margin, Net Profit Margin, Return on Assets Ratio, Return on Capital Employed Ratio and Return on Share holder’s Equity Ratio are not uniform during the period of study. A high Gross Profit Margin is indicating that management is making good efforts in reducing cost of production. Operating Profit Margin is relatively low indicating that the management is not effectively controlling its operating costs. Positive Net Profit Margin indicates that the firm is covering its financial expenses. Return on Assets Ratio is less than 10 during six years of the study which indicates that there is further scope for better profitability management during these six years. Return on Capital Employed is less than 20 during the last five years of the study which indicates that there is further scope for better profitability management during these five years. Return on Shareholders’ Equity is more than 10 during eight years of the study which is good for owners. The management should make efforts to reduce its selling expenses. Low Administrative Expenses Ratio and Low Financial Expenses Ratio are indicating that management is making good efforts in reducing Administrative expenses and Financial Expenses.

### References


### Table-9: Administrative Expenses Ratio

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</thead>
<tbody>
<tr>
<td>Admin Expenses</td>
<td>334.6</td>
<td>632.0</td>
<td>635.7</td>
<td>755.7</td>
<td>943.9</td>
<td>1063.6</td>
<td>1280.1</td>
<td>1116.2</td>
<td>1303.6</td>
<td>567.7</td>
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<tr>
<td>Sales</td>
<td>2846.6</td>
<td>8433.0</td>
<td>14201.0</td>
<td>17141.2</td>
<td>19600.9</td>
<td>20899.3</td>
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<td>25198.6</td>
<td>21013.9</td>
<td>16600.7</td>
</tr>
<tr>
<td>Ratio</td>
<td>11.8</td>
<td>7.5</td>
<td>4.5</td>
<td>4.4</td>
<td>4.8</td>
<td>5.1</td>
<td>5.6</td>
<td>4.4</td>
<td>6.2</td>
<td>3.4</td>
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### Table-10: Selling Expenses Ratio

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<tbody>
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<td>Selling Expenses</td>
<td>962.1</td>
<td>2346.5</td>
<td>3896.2</td>
<td>4861.1</td>
<td>5546.1</td>
<td>7445.2</td>
<td>8960.0</td>
<td>7813.8</td>
<td>9125.2</td>
<td>4541.6</td>
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<tr>
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<td>8433.0</td>
<td>14201.0</td>
<td>17141.2</td>
<td>19600.9</td>
<td>20899.3</td>
<td>22867.6</td>
<td>25198.6</td>
<td>21013.9</td>
<td>16600.7</td>
</tr>
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<td>27.8</td>
<td>27.4</td>
<td>28.4</td>
<td>28.3</td>
<td>35.6</td>
<td>39.2</td>
<td>31.0</td>
<td>43.4</td>
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</table>


### Table-11: Financial Expenses Ratio

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<td>17141.2</td>
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<td>20899.3</td>
<td>22867.6</td>
<td>25198.6</td>
<td>21013.9</td>
<td>16600.7</td>
</tr>
<tr>
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<td>3.2</td>
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<td>7.2</td>
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