AN EMPIRICAL STUDY ON EFFICIENT FINANCIAL POSITION OF THE SELECT SUGAR COMPANIES IN INDIA

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ABSTRACT

The sugar industry is one of the key industries in India. The production and consumption of sugar to a large extent indicate country’s progress. It is a capital intensive industry, which means that competition is confined mainly to a small group of large industrial houses. The economic progress can be achieved by increasing the production coupled with improvement in the ways and means of productivity. This industry has recorded continuous growth since planning began. The government has a complete control over the Production, distribution and price of sugar and this has dampened the Growth of the sugar industry. The involvement of corporate managers, executives in decision making process would augment financial performance of the sugar sectors in India. Managers in sugar industries have a variety of tools at their disposal to analyze the impact of alternative courses of action on costs, revenues, and profits. In this study, the Z-score uses multiple corporate income and balance sheet values is used to measure the financial health of seven Indian sugar companies. Altman Z Model of z-score is used in the present study in order to Measure the 'Fiscal-Fitness' of these companies. According to the method, a company that is rated as failure from the sample of seven Indian sugar companies is Shree Renuka Sugars Ltd (SRSL).

Keywords

Sugar company, corporate failure, financial distress, financial health, productivity, Z-score, Cost Competitiveness, Financial Stability, Sugar Cane and Sugar Prices.
1. Introduction

Indian sugar industry is highly fragmented with organize and an organized players. The unorganized players mainly produce gur and khandsari, the fess refined forms sugar. The sector has a number of transformational opportunities. These opportunities have remained largely untapped. The industry has the potential to cater to the large and growing domestic sugar consumption and emerge as a significant carbon credit and power producer. Further, the industry can improve its cost competitiveness through higher farm productivity and by managing the domestic production variation through international trade with a focus on countries in the Indian ocean. Thus, transformed sector would be less cyclical with greater alignment between sugar cane and sugar prices, and will have stable diversified sources of revenue.

The considerations involved in the economic performance and achievement of the nation are wealth of the country, Gross Domestic Product (GDP), national income, per capita income and standard of living. Corporate sector play a vital role in contributing GDP. It is evinced that, the recent data on industrial production shows an improvement in the industrial growth over the previous year. As per global management consulting firm McKinsey and Company, India’s manufacturing sector could touch US$ 1 trillion by 2025. The burgeoning demand in the country and the multinational corporations’ desire to establish low-cost plants in India can contribute to this. There is potential for the sector to account for 25-30 per cent of the country’s GDP and create up to 90 million domestic jobs, by 2025.

India’s growing economy offers domestic entrepreneurs and international players many opportunities to invest. The country’s government, realizing the significance of the manufacturing industry to India’s industrial development, has taken necessary steps to increase investment in the sector. India’s growth in the manufacturing sector over the last decade has been good. It was ranked the fourth most competitive manufacturing nation in Deloitte’s global index for 38 nations, in 2013. Its economy also experienced significant expansion during the period 2006-2011, achieving a five-year compound annual growth rate (CAGR) of 7.8 per cent.

Manufacturing activities in India rose the most in 17 months in July 2014, on increased orders, as per the HSBC Purchasing Managers' Index (PMI). PMI was at 53 points in July from 51.5 in June. India is primarily an agrarian country with 60 per cent of its population being dependent directly or indirectly on agriculture. The Indian agriculture sector has made considerable progress in the last few decades with its large resources of land, water and sunshine. India produces all major crops to meet the requirement of food, fodder, fiber, fuel and inputs for its agricultural industry. India is presently the world's largest producer of pulses and the second largest producer of rice and wheat in the world.
The country is also the second largest producer of sugar, after Brazil. From the glowing picture of India’s current trends in various sectors, it is clear that corporate India should make use of the resources effectively in order to manage the situation without any difficulty. No doubt, economic affluence largely depends on the efficiency of the corporate sector. Hence it is imperative to evaluate the performance of corporate sector. The performance of a company can be analyzed in many ways. It can be judged in respect to market place, technology adoption, competitiveness, environmental protection and strategic positioning.

The performance of a company in the sugar area would naturally reflect the financial stability and growth of the respective company. Financial statements are the summary of various financial activities which provide information in convenient form. By analyzing these financial statements and evaluating the relationship between the various components, a firm's financial position and performance could be easily interpreted. Financial performance is the operating efficiency of a company in terms of the financial parameter. The financial efficiency of a corporation can be measured in terms of solvency, stability, liquidity, capitalization, turnover ability, coverage ability, profitability, leverages, cost of capital and operating cycle. Being sugar industry one of the core manufacturing sectors, it is essential to know the extent to which the sector was affected by the global financial crisis. If the financial stability is not significantly affected, then it is equally important to know the various attributes that account for the sugar sector withstanding ability amidst this global recession.

2. Literature Review

According to Yuvaraa and Perumal (2013) the determinants had effect on working capital derived from the literature of Ratio analysis and Cash conversion cycle in Sakthi Sugars Ltd. The result was shown as a percentage, determined by dividing relevant income for the 12 months by capital employed; return on equity (ROE) showed this result for the firm's shareholders. Firm value was enhanced when and the return on capital, which resulted from working-capital management, exceeds the cost of capital, which results from capital investment decisions as above. ROC measures were therefore useful as a management tool in that they link short-term policy with long-term decision making. Economic Credit Policy of the Firm that another factor affecting value added (EVA). Working capital management was credit policy of the firm. It included buying of raw material and selling of finished goods either in cash or on credit. This affected the cash conversion cycle. Weng et al., (2013) found that the qualitative factors, leisure and recreation, experience economy and cultural products affect the value-added of quantitative factors and builds the financial performance evaluation construction of the Hualien Tourism Sugar Factory redevelopment in Taiwan. The survey results indicated that the consumers' willingness to pay for living, food and beverage, leisure and recreation, experience economy, and cultural products for the Japanese
dormitories renovation project respectively. Instead of traditional financial analysis, applying EVA evaluation to avoid the developmental value underestimated, the rate of return of this investment would be financially feasible and support the Industrial heritage revitalization plan. On the other hand, Rehman (2013) presented that to investigate the influence of financial leverage on financial and to investigate whether financial leverage had an effect on financial performance by taking evidence from listed sugar companies of Pakistan. He found that the positive relationship of debt equity ratio with return on asset and sales growth and negative relationship of debt equity ratio with earning per share net profit margin and return on equity.

3. **Statement of the problem**

In terms of distribution of industries in manufacturing sector, the sugar industry is one of the most significant industries. It is the second highest contributor in terms of excise duty and Sales taxes to state governments and royalties, Octroi and other Cesses add another contribution. The industry employs a work force of over three lakh employees and supports a further compliment of 20 lakh employees engaged indirectly. The sugar industry is selected for research due to several important reasons. Sugar is a basic food product and its growth is intrinsically linked with the overall growth of the economy and more importantly with the growth of the agriculture sector.

The profitability of the business depends on the cost incurred for the production of goods. If the cost increases, the profit of the business is reduced and ultimately the business may go to the liquidation stage. Moreover the future development programme of the company can be designed according to the expenses and investment level. Future budgeting planning is based on the cost aspect of the companies. Therefore, the analysis of the cost structure of the selected sugar companies in India gets importance in the present day context.

The efficiency of the business is measured by the amount of profit generated during the particular financial year. The profit of a business may be measured by the studying the profitability of investment in it. Hence, an attempt has been made to study the profitability of sugar companies in India. Corporate liability is a vital factor in business. If sufficient liability is not maintained, the enterprise is technically involved and at least faces the financial embarrassment of renegotiating its obligations to creditors. The present study also aims to analyze the liquidity position of the selected sugar companies.

The sample companies will be selected on the basis of size of the company. Several variables can be used as the measure the firm's size. Some of them are net profit, total assets, gross profit, total share capital and net sales. Each variable cannot represent the exact firm size in isolation to other variables. That is each variable has its own limitations. The great advantage of the total assets as a measure of the firm size is that this variable can represent the overall size of the firm compared to other variables. Moreover, figures for total assets are
readily available from company's balance sheets, which the entire firms have to publish. Based on this, the size has been determined on the basis of the investment in total assets of a company during the end of the study period.

Those companies have net sales more than Rs.1000 crore during the study period have been selected for the present study. The Z-score analysis is used in many fields to predict corporate defaults and an easy-to-calculate control measure for the financial distress status of companies in academic studies. One specific case study by Selvam et. al., (2004) was done to study the financial health on cement industry. The study predicts the financial health of India Cement Ltd. using 'Z' score - the Altman model for a period of five years. Another case study by Mansur. A. Mulla (2002) uses the Z score analysis for Evaluation of Financial Health of Textile Mills. On the above background, this paper is employed to evaluate the financial health of 14 south Indian cement industries.

4. Research Methodology

This study is mainly based on the secondary data. The required data was collected from PROWESS database of Centre for Monitoring Indian Economy (CMIE). Companies having average net sales greater than 1000 Crores during the study period, are chosen as the sample size. For the period 2003-04 to 2012-13 seven companies are chosen as Bajaj Hindusthan Ltd (BHL), Balrampur Chini Mills Ltd (BCML), Dalmia Bharat Sugar & Industries Ltd (DBSIL), Dhampur Sugar Mills Ltd (DSML), EID Parry (India) Ltd (EID), Shree Renuka Sugars Ltd (SRSL) and Triveni Engineering and Industries Ltd (TEIL). The Financial Health of sugar companies in India is analyzed using the Z-Score Financial Analysis Tool.

4.1 Z - Score Financial Analysis Tool

A common statistical way of standardizing data on one scale so a comparison can take place is using a z-score. The z-score is like a common yard stick for all types of data. Each z-score corresponds to a point in a normal distribution and as such is sometimes called a normal deviate since a z-score will describe how much a point deviates from a mean or specification point. Z-score means statistical measure that quantifies the distance a data point is from the mean of a data set. In a more financial sense, Z-score is the output from a credit-strength test that gauges the likelihood of bankruptcy. The formula may be used to predict the probability that a firm will go into bankruptcy within two years. Z-scores are used to predict corporate defaults and an easy-to-calculate control measure for the financial distress status of companies in academic studies. The Z-score uses multiple corporate income and balance sheet values to measure the financial health of a company.

The z-score represents a point in time. As such, the z-scores should be examined over time. Consistently low scores each year are more of a concern than a onetime low score. The Z score has proven successful in the real world. It correctly predicted 72% of bankruptcies two years prior to the event. Z score
profiles for failing businesses often indicate a consistent downward trend as they approach bankruptcy.

4.2 Altman Model (U.S. - 1968)

The Z-score formula for predicting bankruptcy was published in 1968 by Edward I. Altman, who was, at the time, an Assistant Professor of Finance at New York University. He is the dean of insolvency predictors. He was the first person to successfully use step-wise multiple discriminate analyses to develop a prediction model with a high degree of accuracy. This can also be called as a company failure or bankruptcy prediction method. A company's Z score is a positive function of five factors viz., 1) net working capital / total assets, 2) retained earnings / total assets, 3) EBIT / total assets, 4) market value of common and preferred / book value of debt, 5) sales / total assets. Altman's model takes the following form:

\[ Z = 1.2x_1 + 1.4x_2 + 3.3x_3 + 0.6x_4 + 1.0x_5 \]

Where,

- \( Z \) = Discriminant Score
- \( x_1 \) = Net working capital / Total assets
- \( x_2 \) = Net operating profit / Total Assets
- \( x_3 \) = EBIT / Total assets
- \( x_4 \) = Market value of Equity / book value of total debt
- \( x_5 \) = Sales / Total Assets

5. Results and Discussion

The Altman Z-Score has become one of the most accepted and tested predictors of bankruptcy potential for a firm. A firm is considered to be financially safe if the Z-score is greater than 2.99 and a firm can be said to perform marginally if the Z-score lies between 2.71 and 2.98. The chance of bankruptcy is expected in next two years for the firms which has the Z-score to lie between 1.8 and 2.70 and a firm is graded as financially weak if the Z-score falls below 1. The result of the Financial Health of selected seven sugar Indian companies using the Z-Score Financial Analysis Tool is presented in Table 1.

<table>
<thead>
<tr>
<th>Year</th>
<th>BHL</th>
<th>BCML</th>
<th>DBSIL</th>
<th>DSML</th>
<th>EID</th>
<th>SRSIL</th>
<th>TEIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>2.37</td>
<td>0.97</td>
<td>2.39</td>
<td>0.17</td>
<td>1.73</td>
<td>1.81</td>
<td>1.95</td>
</tr>
<tr>
<td>2004-05</td>
<td>2.30</td>
<td>1.56</td>
<td>2.70</td>
<td>-0.39</td>
<td>1.55</td>
<td>1.52</td>
<td>1.49</td>
</tr>
<tr>
<td>2005-06</td>
<td>1.97</td>
<td>1.77</td>
<td>2.75</td>
<td>-0.14</td>
<td>2.15</td>
<td>1.74</td>
<td>2.47</td>
</tr>
<tr>
<td>2006-07</td>
<td>2.05</td>
<td>1.81</td>
<td>2.51</td>
<td>0.39</td>
<td>2.30</td>
<td>1.89</td>
<td>1.94</td>
</tr>
<tr>
<td>2007-08</td>
<td>2.57</td>
<td>1.73</td>
<td>3.13</td>
<td>0.40</td>
<td>2.27</td>
<td>1.95</td>
<td>1.07</td>
</tr>
<tr>
<td>2008-09</td>
<td>2.03</td>
<td>1.10</td>
<td>2.92</td>
<td>0.77</td>
<td>2.78</td>
<td>0.86</td>
<td>0.72</td>
</tr>
<tr>
<td>2009-10</td>
<td>2.68</td>
<td>1.14</td>
<td>3.08</td>
<td>1.56</td>
<td>2.53</td>
<td>0.78</td>
<td>1.16</td>
</tr>
<tr>
<td>2010-11</td>
<td>3.04</td>
<td>1.77</td>
<td>5.99</td>
<td>7.64</td>
<td>2.54</td>
<td>1.51</td>
<td>2.81</td>
</tr>
<tr>
<td>2011-12</td>
<td>6.62</td>
<td>3.52</td>
<td>4.21</td>
<td>4.78</td>
<td>4.76</td>
<td>2.46</td>
<td>3.82</td>
</tr>
<tr>
<td>2012-13</td>
<td>9.77</td>
<td>2.97</td>
<td>2.49</td>
<td>1.96</td>
<td>2.47</td>
<td>1.49</td>
<td>2.11</td>
</tr>
</tbody>
</table>

It could be examined from the above table the following result can be inferred: i.e., for the companies like the Bajaj Hindusthan Ltd (BHL), Balrampur Chini Mills Ltd (BCML), Dalmia Bharat Sugar & Industries Ltd (DSIL), Dhamapur
Sugar Mills Ltd (DSML), EID Parry (India) Ltd (EID) and Triveni Engineering and Industries Ltd (TEIL) performs better than other companies. The company, Shree Renuka Sugars Ltd (SRSL) has the chance of bankruptcy in next two years.

6. Suggestion and Conclusion

Altman Z models reviewed here gives weights to financial ratios used to best differentiate or discriminate between failed and successful companies. Seven Indian Sugar industries are taken as the sample size to compute this methodology. According to the method, only one company that is rated as failure from the sample of seven Indian sugar companies i.e., Shree Renuka Sugars Ltd (SRSL). The possible reasons for a company to be rated as failure may be excess debt and excess working capital, that may weaken the financial health of that particular company. Based on the above results few suggestions may be (i) avoid excess working capital which may help to improve the operating profit. (ii) the target must be fixed, and the sales must be achieved accordingly and (iii) maximum utilization of the available capacity. All these may help to keep a company (or the entire sugar industry) financial fit.

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