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## PRODUCTIVITY AND FINANCIAL HEALTH ANALYSIS OF TAMIL NADU CO-OPERATIVE SUGAR INDUSTRIES: A STUDY

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### ABSTRACT

The research study titled "Productivity and Financial Health Analysis of Tamil Nadu Co-Operative Sugar Industries: A Study" is a piece of research work done in order to assess the financial stability, profitability, long term solvency, efficiency in asset utilization of the five major sugar companies operating in the state of Tamil Nadu. The study has been conducted during 2006-2007 to 2016-17 which is clear that the Ministry of Company Affairs, Ministry of Finance – Government of India, as well as the Reserve Bank of India are seriously thinking together for further liberalization, and to reduce the bank rate of interest on the welfare of the companies and the banking agencies were coming forward to support these industries financially to improve the productivity and giving direct and indirect employment for the common man. Since, these types of industries basically depend upon agricultural production and the same in turn depends on the geographical and climate conditions of a State which is above the hands of a common man. Knowingly the researchers have made an attempt to find that whether these white elephants are healthy and financially strong enough to run on its own leg, the researchers had made an attempt to critically analyze the financial strengths. It is found that on an average all the units considered for the study are at average to the industry standards and to the rule of thumb. While making with the Comprehensive Test Kothari Sugars state in the first place where all the sugar companies considered for study should learn a lesson from Kothari Sugars. Rajshree Sugars shows a weak ratio and implies that it is to be bankrupted. It is a warning for other companies to be at most clever. This researchers concludes that all the five major sugar companies considered for study shows an average productivity which can be increased provided these industries in particular depends upon agricultural production where the concerned central and state Government has to answer whether these industries will be at a Survival.

### KEYWORDS

sugar industry, financial performance.

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### I. INTRODUCTION

The focus of financial analysis is a key factor in determining the fate of any company. The analysis of financial statements is a process of evaluating relationship between components of financial statements to obtain a better understanding in the firm's performance. Financial statement analysis involves analyzing the firm's financial statements to extract information that can facilitate decision-making activity. An analysis of the financial statement can reveal whether the firm will be able to meet its long-term debt commitment, or financially distressed, company uses its physical assets efficiently and optimal financing mix is maintained, whether firm is generating adequate return to its shareholders and whether it can sustain its competitive advantage. While the information used is historical, the intention is to clearly arrive with recommendations and forecasts for the future rather than provide a "picture of the past".

### II. SUGAR INDUSTRY - PROFILE

Sugar industry is very important to the Indian national economy due to its multiple contributions in the shape of employment and provision of raw materials to other industries. It had been rightly pointed out by late Shri. Fakhruddin Ali Ahmed who was the minister for food and agriculture. In his eleventh annual general meeting of the national federation of co-operative factories limited he addressed that "the co-operative sugar factories in some parts of the country have become the symbol of industrialization in the development of ancillary industries providing opportunities of employment to the village folk". The industry provides employment to about 35 million cultivations and 3.6 lakhs skilled and unskilled workers. Further, it accounts for providing employment to crores of thousands in the sugar trade, transporting of sugarcane and sugar etc. It's by - products are used as raw materials in industries such as alcohol, plastics, synthetics, rubber, and fiberboard pharmaceuticals, paper, etc. The sugar industry in recent years has begun to export sugar, thus earning valuable foreign exchange besides it provides Rs. 300 crores as tax to the government. Consisting these facts of importance it is ranked second among the major consumer industries of this country, next only cotton, textile industry. In India, major sugarcane growing states includes Uttar Pradesh, Maharashtra, Karnataka, Gujarat, Tamil Nadu, and Andhra Pradesh. These six states contribute more than 85% of total sugar production in the country. Uttar Pradesh and Maharashtra together contribute more than 57% of total production.

### III. STATEMENT OF THE PROBLEM

India is the fourth low cost sugar producers in the world after Australia, Brazil and Thailand. India's cost of sugar production is one-fourth of that in Europe. India's sugar sector faces a fall in prices, rising raw material costs, limited export capacity and a lack of flexibility to produce ethanol for biofuel, analyst Licht said. Sugar is the second largest agro-based industry in India. The industry provides employment to about two million skilled and semi-skilled workers besides those who are employed in ancillary activities, mostly from rural areas. Though the industry contributes a lot to the socioeconomic development of the nation, it is plagued with a number of problems such as cyclical fluctuations, high support prices payable to farmers, lack of adequate working capital, partial decontrol and the uncertain export outlook. Global sugar prices have fallen sharply because of a huge glut of production driven by the world's leading producers such as Brazil, India and Thailand.

The Sugar Industry in Tamil Nadu plays a vital role in the economic development of the State, particularly in rural areas. Tamil Nadu is one of the leading producers of sugar in the country and its contribution is about 7% of the country's total sugar production. At present, there are 47 sugar mills in Tamil Nadu of which 16 sugar mills are in cooperative sector, 3 in public sector and 28 in private sector. At present 44 sugar mills are functioning and the remaining 2 mills viz., Madura Sugars

and Arunachalam Sugar Mills Limited are not functioning. The Agro based sugar mills play an important role in the economic growth of rural areas with the sole aim to generate large scale direct employment. Apart from that, a lot of indirect employment to rural population is also provided. Tamil Nadu Sugar industry is responsible for about 10% of the total sugar production in India. At present, the sugar industry in Tamil Nadu stands in a total mess similar to that of the other rural industries.

#### IV. SCOPE OF THE STUDY

"Productivity and Financial Health Analysis of Tamil Nadu Co-Operative Sugar Industries: A Study" is a maiden attempt to analyze various financial aspects of sugar companies. It analyses various aspects such as liquidity, solvency, turn-over etc. of the year 2006-2007 to 2016-2017. It is a specific study which is confined to financial aspects only and is purely based on secondary data which also limits the scope of the study. The study highlights the financial position of the sugar companies in Tamil Nadu for the study period. The study helps to understand the financial position and provides suitable suggestion to improve their financial performance.

#### V. METHODOLOGY

The source of data for the study is collected from the annual Reports and balance Sheet of select 5 sugar companies in Tamil Nadu. The Companies considered are Bannari Amman Sugars(BAS), Ponni Sugars(PS), EID Parry(EID), Kothari Sugars(KS) and Rajshree Sugars(RS) all these are located and operating in Tamil Nadu only. The objective of this paper is to analyze and compare the Profitability, Liquidity, Long Term Solvency position and Efficiency in Asset Utilization of sugar companies under study and to offer findings and suggestion to improve the financial position of sugar companies. The tool used for the study includes Ratio Analysis, Comparative Financial statement, Common Size statement, Mootal's Comprehensive Test, Z – Score Ratio, Trend Analysis and Correlation and to understand the actual financial position, trend projection made to projected for the following three years based on the actual position. Study was made for just five years and the current year excluded was on account of the non-availability of the data. It is based on secondary data, were it is affected by the inherent limitations of the secondary data.

#### VI. REVIEW OF LITERATURE

**Kannadhasan (2007)** in his article entitled —Measuring Financial Health of a Public Limited Company Using Z' Score Model-A Case Study|| ascertained the financial health of Wendt (India) Limited company and its consistency in financial performance for five financial years from 2001-02 to 2004-05. The research findings are that the company is maintaining good financial performance throughout the study period.

**Kannadhasan (2008)** has made an attempt —Measuring Financial Health of a Public Limited Company using 'Z'- Score Model- A Case Study|| to have an insight into the examination of financial health of a watch company in India. To evaluate the financial conditions and performance of a company, the author has used Z-score model, which captures the predictive viability of a company's financial health, by using a combination of financial ratios that ultimately predicts a score, which can be used to determine the financial health of a company. The study concludes that the company's overall financial health was good.

**Sam Luther (2009)** has undertaken a study entitled —Liquidity Risk and Profitability Analysis : A case study of Madras Sugars Ltd|| and has highlighted how the company had achieved adequate liquidity, risk minimization and profit maximization. The objectives of the study are to measure and evaluate the liquidity position of MCL, to assess the correlation between liquidity and profitability and to assess the trade-off between profitability and risk for a period from 1994-98 to 2004-05. The relationship between liquidity and profitability are measured by computing spearman's rank correlation co-efficient. The author, by using t-test, has concluded that there is a liner relationship between liquidity and profitability. It is also concluded that the high degree of aggressive policy adopted by MCL has made a negative impact on its profitability.

**Singh (2010)** has studied —Sugar industry in Uttar Pradesh: Efficiency still Honey the Key, the sugar industry is a major agro-based industry of Uttar Pradesh where cropping pattern is largely subsistence- oriented and sugarcane is one of the important cash crops. During 2001-02, the state had 20.35 lath ha area under sugarcane out of the total 4403 lakhsha area under sugarcane in the country. The sugar industry has shown considerable instability in the level of production because of interdependence and inter-relationship between sugarcane, gur, khansari and white sugar leading to fluctuations in the production of sugarcane, as well as, sugar. These fluctuations have emanated from the presence of various processing sectors and have the different government policies. Such uncertainty of affairs is neither conducive to sound growth of the industry nor to the growers. In view of this scenario, it felt necessary to carry out an investigation, which can reveal the present state of sugar industry, in terms of its efficiency in operations. The study has revealed that most of the mills are in the efficiency range of 60-80 percent. Efficiency is higher in the private sector (81%), followed by the public (73%) and co-operative (66%) sectors. Though this study has advocated the continuation of partial decontrol policy, it has urged the policy makers to streamline strategies that promote stabilization of sugarcane economy and make the state, a credible supplier of Sugar in the international market, benefiting growers, processors and, in turn, consumers.

**Somannavar (2011)** in his article, states that —Indian Sugar Industry is Competitive||. He concluded that the strong infrastructure build up, co-ordination between the centre and state governments, dialogue between the firm and the farm sector, future based R&D, government co-operative sector, proper utilization of the by-products and able trade policy have been the essentials to make the Indian sugar industry globally competitive.

**Vishanani and Shah (2011)** have studied the —Impact of Working Capital Management Policies on Corporate Performance—An empirical study of Indian consumer electronic industry by implementing simple correlation and regression models. They have found that there is no established relationship between liquidity and profitability for the industry as a whole; but various companies of the industry depict different types of relationship between liquidity and profitability. However, majority of the companies revealed positive association between liquidity and profitability.

**Appuhami and Ranjith (2013)** in their study on Firms' Capital Expenditure on Working Capital Management: An. Empirical Study across Industries have investigated the impact of Thailand firms' capital expenditure on their working capital management. The authors have used the data collected from listed companies in the Thailand Stock Exchange. The study has also found that the firms' operating cash flow, which has been recognized as a control variable, has a significant relationship with working capital management, which is consistent with findings of previous similar researches. The findings enhance the knowledge base of working capital management and will help companies manage working capital efficiently in growing situations associated with capital expenditure.

#### VII. FINDINGS

##### 7. 1. Liquidity ratio

It was found that the overall performance, Bannari Amman Sugars shows high with 1.65 as average current ratio whereas Rajshree sugars low with 0.89 during the study period. It was found that the overall performance of EID Parry was shows 1.32 liquidity ratio whereas Ponni sugars low at 0.39 against the standard norm of 05. Performance of Kothari Sugars is good by 6.03 as against Bannari Amman Sugars low 2.86 with regard to inventory turnover ratio. It was found that the overall performance, Ponni Sugars was showing 312.48 as an average debtors turnover ratio whereas EID Parry low with 35.21.

##### 7. 2. Long Term Solvency ratio

Rajasree sugars performs good with regard to Debt equity ratio (14) and Long term debt equity ratio (2.46) and low in the case of interest coverage ratio (1.96). Bannari amman sugars a low degree with 0.55 in the case of debt equity ratio as well as in the case interest coverage ratio it is found to be as high as 18.32. Ponni sugars has performed quite good during the study period in the case of return on long term fund with 147.21 and as low as 0.21 in the case of long term debt equity ratio. Rajshree sugars shows a high average of 2.46 in long term debt equity ratio and Kothari Sugars with 42.77 as average low on long term fund ratio. It was found that the overall performance of debt equity ratio found to be high in the case of Rajshree Sugars (14) as an average debt equity ratio whereas Bannari amman Sugars low with 0.55. Ponni sugars was showing high with 2.94 as an average fixed asset turnover ratio whereas EID Parry low with 0.95. It is understood that the overall performance of Ponni Sugars is 2.05 as an average total asset turnover ratio whereas EID Parry with 0.63. It was found that the overall performance of EID Parry was showing high with 1.18 and Rajshree Sugars low with 0.35 return on net worth ratio.

**7. 4. Profitability Ratio in relation to sale**

Operating ratio is concerned it is observed that Bannari Amman Sugars shows high value of 98.74 as EID Parry low with 31.29. Gross Profit Ratio is found to be good in the case of Bannari Amman Sugars by 15.07 whereas EID Parry is low with 2.24. Average profit ratio is concerned it is understood that EID Parry shows high 23.02 and Rajshree sugars with 2.60. Bannari Amman Sugars shows 14.09 as average profit before interest and tax ratio whereas EID Parry with -0.01.

**7. 5. Profitability Ratio in relation to investment**

Earnings per share ratio is high with Bannari Amman Sugars Rs.77.85 and Kothari Sugars low of Rs.1.14. Dividend payout ratio to net profit is concerned it is found that EID Parry shows high 30.62 whereas Kothari Sugars has not paid dividend to its share holders throughout the study period which has to be taken in to account. It was found that the overall performance of EID Parry was shown high with 26.47 as average dividend payout ratio cash profit whereas Kothari Sugars has not paid dividend to its share holders throughout the study period. Investment turnover ratio is concerned it is found that Kothari Sugars shows high with 6.56 times whereas Bannari Amman Sugars low with 2.86.

**7. 6. Common Size Statement**

**Common size balance sheet** shows that the current liabilities and current assets show fluctuation in its respective percentage to total liabilities and total assets when compared each year. In the year 2008 Rajshree sugars percentage of total current asset to its total asset is (21%) less than the percentage of total current liabilities to its total liabilities(31%). While comparing the five companies for five years the percentage of reserve has increased except Rajshree sugars and Bannari Amman Sugars.

Common size income statement when compared to the then yester four year's Bannari Amman Sugars total income has increased at 132 % against its total sales in the year 2011 and total expenses increased at 114% to its total sales. Compared with other years the operating profit of EID Parry has decreased at -5% to its sales in the year 2008 due to decrease in total income at 109% on its total sales. The Operating profit of Ponni Sugars in the year 2010 has increased at 31% to its total sales to total income at 110% which decreased at 85% to its total sales on total expenditure.

**7. 7. Comparative Statement**

Comparative balance sheet is found that the Bannari Amman Sugars total liability has decreased to -2% during the year compare then its previous year. Cash and bank balance of Rajshree sugars increased to 1231 times during the year 2010. The percentage of capital work in progress has increased 1006 times during the year 2008. Kothari Sugars reserves has increased to 258% during the year 2010 compare then its previous year 2009. Sundry debtors of Ponni Sugars has increased 1187 times during the year 2008. Total asset and liabilities of Ponni Sugars has decreased to -10% during the year 2011. **Comparative income statement** is found to increase in net sales to 78% during the year 2010 due to increase in total income 6% to 8%. Even though there has been no change in total expenses during the year 2009. -4273 time decrease in net profit during the year 2009 of EID Parry. Kothari Sugars net profit has increased 1256 times during the year 2010 compared to its previous year 2009 Kothari Sugars net profit has decreased to -43% during the year 2008 due to increases in its miscellaneous expenses to 1887 times.

It was found to be negatively performed with a net profit towards the companies showing fluctuation trend. A sale of companies considered for the study gradually increased and was steady in all projected periods i.e. 2013-14 to 2014-15 except Bannari Amman Sugars & Kothari Sugars. In the case of reserve & surplus it is learnt that there was a positive trend of all the five companies except Rajshree Sugars. Sundry Debtors is concerned companies considered such as Ponni Sugars and Kothari Sugars are well maintained. Rajshree Sugars trend was healthy and positive towards fixed asset for the entire projected period.

**7. 8. Z-Score**

Altman's Z- Score reveals Ponni Sugars, Bannari Amman Sugars, EID Parry and Kothari Sugars shows Healthier except Rajshree sugars. Ponni Sugars shows healthy zone during 2009 -10 with a score of 4.29 and Rajshree Sugars shows a bankruptcy signal during the year 2007-08 whose score is 0.99. All the companies are found to be in the healthy zone and it is certain that financial health of the companies considered are good and high except Rajshree Sugars where necessary steps to be taken for recovery of this poor financial position.

**7. 9. Motaal's Comprehensive Test**

During 2006 - 07 the said companies were ranked as 1<sup>st</sup> except Kothari Sugars. In the year 2007 - 08 2<sup>nd</sup> rank was achieved by EID Parry, Kothari Sugars and Rajshree Sugars. In the year 2008 - 09 Bannari Amman Sugars, Kothari Sugars and Rajshree Sugars achieved 4<sup>th</sup> rank. In the year 2009 - 10 1<sup>st</sup> rank was achieved by Kothari Sugars. EID Parry and Rajshree Sugars were achieved 5<sup>th</sup> rank in the year 2010 - 11. It is evident from the above test that the sugar companies considered for the study are equally doing good.

**7. 10. Correlation**

There exist a positive correlation between current asset and debt equity ratio except EID Parry (-0.24108). There is a positive correlation between inventory turnover ratio and net profit ratio, current asset and inventory turnover ratio, quick ratio and return on capital employed of all the above noted five companies.

**VIII. SUGGESTION**

Liquidity position of Ponni Sugars shows poor performance hence the company has to take necessary steps to improve its liquidity position by maintaining the sufficient current assets. While taking the Long Term Solvency position in to consideration Ponni Sugars performance seems to below the company has to concentrate on long term investments to improve its long term solvency position. EID Parry's activity ratio is low, and to overcome this company has to concentrate on its activity position by deploying more funds on its fixed assets as well as total assets. Profitability position of EID Parry shows poor performance. The company has to improve its sales by reducing operating expenses to earn more profit. Motaal's Comprehensive test reveals that the EID Parry achieved 5<sup>th</sup> rank during the year 2010 - 11 the company has to concentrate to improve its liquidity position. Rajshree Sugars situation in the case of Z - score test is in bankruptcy situation, to safeguard the company from this situation it has to concentrate on its all activities. There is negative Correlation between current asset and debt equity ratio of EID Parry. Hence the current assets do not influence the debt equity ratio of EID Parry.

**IX. CONCLUSION**

The study has been conducted during 2006-2007 to 2016-2017 which is clear that the Ministry of Company Affairs, Ministry of Finance - Government of India, as well as the Reserve Bank of India are seriously thinking together for further liberalization, and to reduce the bank rate of interest on the welfare of the companies and the banking agencies were coming forward to support these industries financially to improve the productivity and giving direct and indirect employment for the common man. Since, these type of industries basically depends upon agricultural production and the same in turn depends on the geographical and climate conditions of a State which is above the hands of a common man. It is found that on an average all the units considered for the study are at average to the industry standards and to the rule of thumb. While making with the Motaal's Comprehensive Test Kothari Sugars state in the first place where all the sugar companies considered for study should learn a lesson from Kothari Sugars. Rajshree Sugars shows a weak ratio and implies that it is to be bankrupted. It is a warning for other companies to be at most clever. This researchers concludes that all the five major sugar companies considered for study shows an average productivity which can be increased provided these industries in particular depends upon agricultural production where the concerned central and state Government has to answer whether these industries will be at a Survival.

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