EVALUATION OF PROFITABILITY PERFORMANCE OF SELECT SUGAR FACTORIES IN CHITTOOR DISTRICT, ANDHRA PRADESH

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ABSTRACT

Profit is the main objective of every business. Generation of profit is the most important goal for financial management. To earn the highest possible profit for the firm, it is imperative for the management to have the goal of profit maximization. Even in the long-run profitability plays an important role in the performance measurement because usually the measure of financial organization is the ability to generate profits. Sugar industry is regarded the sunrise sector of Indian economy. This is in view of its large potential for growth and its socio-economic impact, especially, employment creation and income generation. The sugar industry covers around about 7.5 percent of total rural population and provides employment to around about 5 lakh people in rural and the semi rural areas. About 4.5 crores farmers are engaged in sugarcane cultivation in India. The main objective of this paper analyses the evaluation of profitability performance of select of sugar factories in Chittoor district.

Key Words: Financial Management, Sugar Industry, Income Generation, Employment and Profitability

INTRODUCTION

Sugar industry is regarded the sunrise sector of Indian economy. This is in view of its large potential for growth and its socio-economic impact, especially, employment creation and income generation. Sugar industry is the second largest agro-based industry next to cotton textiles. The sugar industry is a fragmented one with 650 sugar factories. Their crushing capacity, on an average, works to 2,500 tonnes of sugarcane, per day. Of them, 527 operate during crushing season. Sugar mills in private sector produce half of the sugar produced in the country and the rest is produced by cooperative mills. The sugar industry covers around about 7.5 percent of total rural population and provides employment to around about 5 lakh people in rural and the semi rural areas. About 4.5 crores farmers are engaged in sugarcane cultivation in India.

Profitability is the ability of a firm to generate earnings. It indicates the overall performance and operational efficiency of the firm. Analysis of profits is of prime concern to the shareholder as he derives revenue in the form of dividends paid out of profit. Further, increased profits are also important to creditors as profits are one source of funds for debt coverage. Management is vitally interested in profit as it is often used as performance measure.

Profit as an absolute figure alone does not give an exact idea of the adequacy or otherwise of increase or of changes in efficiency as shown by the financial statements of the enterprise. Profitability refers to the ability to earn profit from all the activities of the firm. Measurement of profitability should be through establishing a quantitative relationship between profit and sales and profit and other relative figures like level of investment etc. The aim is to find the reasons for increasing or decreasing profit and to establish a system to control the operations and increase the operational efficiency.

Profitability is not related only to financial measurement but also it includes social profitability. An enterprise is both an economic as well as social organ. So, the traditional concept of profitability analysis and financial performance analysis should reflect the social profitability of an enterprise. The accounting system must also take into consideration the non-profit performance, the non-monetary outcome, cost effectiveness and the non-financial performance of the enterprise. Changing social properties generate changing utilities and values that reflect changing attributes of interest for measurement in the society. The accounting discipline must continually re-examine and adopt the purposes of accounting measurement in changing environment. The basis of the viability should be measurement expertise that will enable society and specific users to have confidence in the resulting measurement products.

CONCEPT OF PROFITABILITY

Profit is one of the motivating factors for any economic activity. Business enterprise is essentially an economic organization. It has to maximize the welfare or interest of its stakeholders. To this end, business undertaking has to earn profit from its operations. In other words, receipts from operations should be more than the expenses incurred over a period of time, usually an accounting year. In fact, profit is a useful intermediate beacon towards which the capital of the concern should be directed.[1]

Profitability implies profit making ability of a business enterprise. The term profitability is the combination of two words profit and ability. To earn profit from accounting point of view, total expenses are deducted from the total revenues for a given period. The word 'ability' means the earning power or operating performance of the concern on its investment. Therefore, profitability may be defined as the ability of a given investment to earn a return on its use[2]. An analysis of the profitability reveals as to how the position of profits stand as a result of total transactions made during a year. It need not be stressed that profitability is analyzed through the computation of profit ratios[3].

Objective:

The present study aims to find out the Profitability Performance of the select sugar factories in Chittoor District.

Review of Literature

Devdatta Tare, Fakhruddin Sunelwala and Akash Agrawal (2014), in their study “Profitability Analysis of Selected Companies Sugar Industry Based on Their Margin on Sales” stated that sugar is one of the most important commodities; produced and consumed around the world. India is the second largest producer of sugar in the world having a share of over 16 percent of world’s sugar production after Brazil’s 22 percent. This article was an attempt to study Indian sugar industry and to analyze the profitability of selected sugar companies based on their margin on sales. For studying the same, one way ANOVA was used. Net Profit Margins, Total Asset Turnover and Return on Equity were the variables studied and used for the study[4].

Dr. Ashok Kumar. M (2015), attempted “A Study on Financial Performance Analysis of Sugar Companies in Tamil Nadu” 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 was conducted during 2006-07 to 2010-11 which made it clear that the Ministry of Company Affairs, Ministry of Finance – Government of India, as well as the Reserve Bank of India were seriously thinking together for further liberalization, and to reduce the bank rate of interest in 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. 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 are above the hands of a common man[5].

SAMPLE DESIGN

The present study is confined to the study of evaluation of profitability performance of select sugar factories in Chittoor district. There are 6 sugar factories in Chittoor district. Out of these, two factories are in co-operative sector, and four factories are in private sector. Out of these six sugar factories, three sugar factories are not working i.e., one in private sector and two in co-operative sector. The researcher has adopted census method and chosen three sugar factories namely, Prudential Sugar Corporation Limited, Nindra, SNJ Sugars and Products Limited, S.R.Puram and Suddalagunta Sugars Limited, B.N.Kandriga and all belong to private sector.

Scope and Limitation of the Study

The present study is confined to the evaluation of profitability performance in terms of profitability of select sugar factories in Chittoor district only. The present study may not be free from limitations. The figures taken from the annual reports have been rounded off to two decimals of rupees in lakh. The accuracy of the data depends on the accuracy of the data available in the balance sheet of the company.

Source of Data Collection

The study is based on the data collected from secondary source only. Both qualitative and quantitative data relating to the working of sugar factories, cost of production, financial performance and other related aspects are collected from individual sugar industries, and regarding their capacity and production etc., the data was collected from journals, annual survey of the industry and the annual reports of the select sugar factories.

Period of Study

The study is confined to the evaluation of profitability performance of select sugar factories in Chittoor district only. In the opinion of the researcher, a time span of 10 years is quite reasonable to assess the trend and growth in the effective utilization of resources and efficiency of financial performance. To exclude abnormalities, the period is fixed for 10 years i.e., from 2006-07 to 2015-16.

Growth in Sales:

The operations of business are combined and coordinated to realize the aim. Sales constitute the end product of all business operations. It is important that the firm shall be able to generate adequate profit on each unit of sales. If sales lack a sufficient margin of profit, it is difficult to cover fixed costs and earn profit to shareholders[5]. The quantity, quality, and regularity of flow of sales revenue govern the physical appearance and the internal condition of a business organization[6]. An increase in sales volume is not necessarily favourable from the view point of profit, and decrease vice-versa. Normally, higher volume of sales generates greater profit. The increase in the volume of sales year after year should enlarge reasonable cost, as a result more profits and growth of business can be expected. Growth in Sales in the Prudential Sugar Corporation Limited, SNJ Sugars & Products Limited and the Sudalagunta Sugars Limited during 2006-07 to 2015-16 is presented in table 1.

Table 1

Growth in Sales in the Prudential Sugar Corporation Limited, SNJ Sugars & Products Limited and the Sudalagunta Sugars Limited during 2006-07 to 2015-16

(Rupees in Lakhs)

Particulars	Prudential Sugar Corporation Limited		SNJ Sugars & Products Limited		Sudalagunta Sugars Limited	
Year	Sales	Trend	Sales	Trend	Sales	Trend
2006-07	9059.44	100	13227.33	100	10390.58	100
2007-08	7182.55	79.28	11637.33	87.97	9189.05	88.43
2008-09	4992.81	55.11	8381.74	63.36	9097.53	87.56
2009-10	7222.52	79.72	11923.37	90.14	10650.92	102.50
2010-11	7702.99	85.03	14939.62	112.95	13678.15	131.63
2011-12	7828.87	86.42	10533.21	79.63	12483.16	120.14
2012-13	10800.64	119.22	14145.57	106.94	16647.73	160.22
2013-14	7816.98	86.29	15159.40	114.60	49311.74	474.58
2014-15	8415.90	92.89	15503.39	117.20	47507.93	457.22
2015-16	9440.62	104.20	14037.19	106.12	19158.73	184.38
Average	**8046.33**		**12948.82**		**19811.55**	

Source: **Compiled from the Annual Reports of the Sugar factories.**

Growth in Sales in the Prudential Sugar Corporation Limited, SNJ Sugars & Products Limited and the Sudalagunta Sugars Limited during 2006-07 to 2015-16 is shown in table 1. The trend is computed in subsequent year 2015-16 and the base year 2006-07. The value of base year is assumed as 100. In Prudential Sugar Corporation Limited sales were worth Rs. 9059.44 lakhs in 2006-07 whereas Rs. 9440.62 lakhs with a trend value of 104.20 per cent in 2015-16 and on an average it stood at Rs. 8046.33 lakhs.

In SNJ Sugars & Products Limited sales were of worth Rs. 11637.33 lakhs and trend value 87.97 per cent in 2007-08 whereas Rs. 14037.19 lakhs with the trend value of 106.12 per cent in 2015-16 and on an average it constituted at Rs. 12948.82 lakhs. In Sudalagunta Sugars Limited sales were worth Rs. 9189.05 lakhs with the trend value of 88.43 per cent whereas Rs. 19158.73 lakhs with the trend value of 184.38 per cent and on an average it constituted at Rs. 19811.55 lakhs.

Gross Profit to Sales Ratio:

Financial result of a manufacturing unit can be measured by computing the Gross profit to sales ratio. Gross profit is the result of relationship among price, sales value and costs. The GPSR is vital to gauge the business results. Gross profit can be found by subtracting cost of goods sold from net sales[6]. The ratio measures the efficiency of production as well as pricing. A high Gross Profit to Sales Ratio implies that the firm is able to produce products / render services at a relatively low cost. This is a clear sign of good management[7]. The Gross Profit to Sales Ratio can be obtained with the following formula:

$$Gross\ profit\ to\ sales\ ratio = \frac{Gross\ profit}{Net\ sales} x100$$

The consolidated gross profit to sales ratios in the PSCL, SNJS & PL and SSL are presented in table 2.

Table 2

Consolidated Gross Profit to Sales Ratios in the PSCL, SNJS & PL and SSL

Year	PSCL	SNJS&PL	SSL
2006-07	24.67	56.25	4.88
2007-08	30.99	31.62	20.04
2008-09	5.26	46.37	27.23
2009-10	15.74	12.24	30.50
2010-11	11.79	26.27	22.49
2011-12	3.40	41.97	25.07
2012-13	17.97	27.25	23.16
2013-14	4.07	26.51	11.89
2014-15	11.09	24.11	11.53
2015-16	14.53	24.82	24.63
Average	**13.95**	**31.74**	**20.14**
SD	**8.96**	**12.83**	**8.11**
CV (%)	**64.22**	**40.42**	**40.26**
CGR	**-7.07**	**-5.02**	**3.56**
LGR	**-3.22**	**-0.81**	**5.04**

Source: Compiled from the Annual Reports of the sugar companies

Gross Profit to Sales Ratios in the PSCL on an average 13.95 per cent. The standard deviation was 8.96 and CV was 64.22 per cent. The CGR was -7.07 per cent and LGR was -3.22 per cent. Gross Profit to Sales Ratios in the SNJS & PL on an average 31.74 per cent. The standard deviation was 12.83 and CV was 40.42 per cent. The CGR was -5.02 per cent and LGR was -0.81 per cent. Gross Profit to Sales Ratios in the SSL on an average 20.14 per cent. The standard deviation was 8.11 and CV was 40.26 per cent. The CGR was 3.56 per cent and LGR was 5.04 per cent. The gross profit to sales ratio of Sudalagunta Sugars Limited was satisfactory during the study period when compared to Prudential Sugar Corporation Limited and SNJ Sugars & Products Limited. The analysis of mean variance is calculated in the following way:

ANOVA

Source of Variation	*SS*	*DF*	*MS*	*F*	*P-value*	*F crit*
Between Groups	1631.165	2	815.5823	7.872224	0.002026	3.354131

Within Groups	2797.268	27	103.6025
Total	4428.433	29	

Hypothesis: There are no significant differences among the three sugar factories with regard to gross profit to sales ratios in the PSCL, SNJS&PL and SSL.

Inference: The F calculated value is greater than the F table value. Hence, the null hypothesis (H_0) is rejected and it is concluded that there are significant differences among the three sugar factories.

Total Assets Turnover Ratio:

The total assets ratio explains the efficiency of a firm to generate sales from assets. The ideal norm of TATR is 2 times. The higher the ratio, the higher will be the sales generated per rupee of investment in total assets. On the other hand, a lower ratio indicates that the total tangible assets are not properly and efficiently utilized in the concern. By analyzing the ratio over a period of time, one can know whether the sales volume is fairly relative to total investment in assets. The ratio can be calculated with the help of the following formula:

$$Total\ assets\ turnover\ ratio = \frac{Sales}{Total\ assets}$$

The total assets turnover ratios in Prudential Sugar Corporation Limited, SNJ Sugars & Products Limited and Sudalagunta Sugars Limited during 2006-07 to 2015-16 are presented in table 3.

Table 3

Total Assets Turnover Ratio in PSCL, SNJS&PL and SSL during 2006-07 to 2015-16

Year	PSCL	SNJS&PL	SSL
2006-07	1.03	0.51	0.63
2007-08	0.91	0.45	0.49
2008-09	0.62	0.33	0.50
2009-10	0.86	0.44	0.56
2010-11	0.91	0.61	0.68
2011-12	0.77	0.48	0.55
2012-13	1.16	0.57	0.65
2013-14	0.76	0.59	1.59
2014-15	0.73	0.57	1.12
2015-16	0.81	0.49	0.49
Average	**0.86**	**0.50**	**0.73**
SD	**0.16**	**0.09**	**0.36**
CV (%)	**18.60**	**18.00**	**49.31**
CGR	**-1.10**	**2.58**	**4.94**
LGR	**3.60**	**6.55**	**10.02**

Source: Compiled from the Annual Reports of the sugar companies

Total Assets Turnover Ratios in PSCL, SNJS&PL and SSL are shown in table 3. The total assets turnover ratio on an average 0.86 in Prudential Sugar Corporation Limited, 0.50 in SNJ Sugars & Products Limited and 0.73 in Sudalagunta Sugars Limited. The three sugar factories on an average good in prudential sugar corporation limited when compared to SNJS&PL and SSL in the study period. The one-way analysis of variance is calculated as follows:

ANOVA

Source of Variation	*SS*	*DF*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.633627	2	0.316813	6.006488	0.006952	3.354131
Within Groups	1.42412	27	0.052745			
Total	2.057747	29				

Hypothesis: There are no significant differences among the three sugar factories with regard to total assets turnover ratio.

Inference: The calculated F value is greater than F table value. Hence, the null hypothesis (H_0) is rejected and it is concluded that there are no significant differences among the three sugar factories.

Capital Employed Turnover Ratio:

Capital Employed is equivalent to total fixed assets plus net working capital. The ratio shows the efficiency in the use of capital employed. In other words, it reveals how many times the capital employed has turned over in a year. The higher the ratio, the greater are the profits. The lower the ratio, the lesser are the profits. It means that a low capital turnover ratio indicates that the sales are not sufficient and, therefore, profits are inadequate. This ratio can be calculated with the following formula

$$Capital\ employed\ turnover\ ratio = \frac{Sales}{Capital\ employed}$$

The Capital Employed Turnover Ratios in Prudential Sugar Corporation Limited during 2006-07 to 2015-16 are illustrated in table 4.

Table 4

Capital Employed Turnover Ratios in PSCL, SNJS&PL, SSL during 2006-07 to 2015-16

Year	PSCL	SNJS&PL	SSL
2006-07	1.29	0.58	0.71
2007-08	1.24	0.51	0.59
2008-09	0.81	0.46	0.56
2009-10	1.22	0.65	0.65
2010-11	1.31	0.79	1.66
2011-12	1.87	0.55	1.23
2012-13	3.18	0.74	1.96
2013-14	1.75	0.79	3.88

2014-15	1.53	0.82	2.75
2015-16	3.73	0.69	1.04
Average	**1.79**	**0.66**	**1.50**
SD	**0.93**	**0.12**	**1.09**
CV (%)	**51.95**	**18.18**	**72.66**
CGR	**11.30**	**4.28**	**15.48**
LGR	**13.45**	**7.89**	**16.10**

Source: Compiled from the Annual Reports of the sugar companies

Capital employed turnover ratio in PSCL, SNJS&PL and SSL are shown in table 4. The capital employed turnover ratio is on an average 1.79 in Prudential Sugar Corporation Limited, standard deviation is 0.93 and CV is 51.95 per cent. In SNJ Sugars & Products Limited capital employed turnover ratio is on an average is 0.66, SD is 0.12 and CV is 18.18 per cent and in Sudalagunta Sugars Limited capital employed turnover ratio is on an average 1.50, SD is 1.09 and CV is 72.66 per cent. The one-way analysis of variance is calculated as follows:

ANOVA

Source of Variation	*SS*	*DF*	*MS*	*F*	*P-value*	*F crit*
Between Groups	6.9545	2	3.47725	4.995523	0.01426	3.354131
Within Groups	18.79398	27	0.696073			
Total	25.74848	29				

Hypothesis: There are no significant differences among the three sugar factories with regard to capital employed turnover ratio.

Inference: The calculated F value is greater than the F table value. Hence, the null hypothesis (H0) is rejected and it is concluded that there were no significant differences among the three sugar factories.

Net Profit to Sales Ratio:

The NPSR is an indicator of the ability of management to operate business with success. The cost of merchandise or services, operating expenses and the cost of borrowed funds are recovered from revenue and they leave a margin of reasonable compensation to owners for providing their capital at risk[8]. A high net profit margin would ensure adequate return to owners and enables the firm to withstand adverse business conditions. It is a good indicator to measure the efficiency of a business concern. This ratio, together with the operating ratio, throws light on the importance of non-operating activities. The standard norm for NPR is 4-6 per cent. It can be computed with the help of the following formula:

$$Net\ profit\ to\ sales\ ratio = \frac{Net\ profit}{Sales}\ X\ 100$$

The net profit ratios in Prudential Sugar Corporation Limited during 2006-07 to 2015-16 are presented in table 5.

Table 5
Net Profit to Sales Ratios in PSCL, SNJS&PL, SSL during 2006-07 to 2015-16

Year	PSCL	SNJS&PL	SSL
2006-07	6.36	25.33	5.23
2007-08	7.14	Loss	2.56
2008-09	0.58	40.08	0.86
2009-10	Loss	Loss	10.84
2010-11	Loss	18.26	2.41
2011-12	3.05	9.55	2.79
2012-13	8.99	0.70	2.15
2013-14	1.36	2.72	3.36
2014-15	1.16	2.29	0.70
2015-16	21.25	2.87	0.12
Average	**6.24**	12.73	**3.10**
SD	**6.82**	**14.65**	**3.09**
CV (%)	**109.24**	115.08	**99.67**

Source: Compiled from the Annual Reports of the sugar companies

Table 5 shows the net profit to sales ratio in the Prudential Sugar Corporation Limited during 2006-07 to 2015-16. In two out of ten years study period, it was negative i.e., during 2009-10 and 2010-11years. The standard deviation was 6.82 and CV was 109.24 per cent. It indicates that the operating costs in the form of administrative, selling and distribution expenses and financial costs in the form of interest charges were high. Therefore, loss was incurred instead of profit.

The net profit to sales ratio in the SNJ Sugars & Products Limited during 2006-07 to 2015-16 was negative in two out of ten years study period. The standard deviation was 14.65 and CV was 115.08 per cent. It may be concluded that the overall operating profit to sales ratio in SNJ Sugars & Products Limited was good during the study period.

The net profit to sales ratio in Sudalagunta Sugars was positive in ten out of ten years study period. The net profit to sales ratio was 5.23 per cent in 2006-07 whereas 0.12 per cent in 2015-16 and on an average it was constituted at 3.10 per cent. The standard deviation was 3.09 and CV was 99.67 per cent. It may be concluded that the net profit to sales ratio was satisfactory.

Conclusion:

The sugar factories should concentrate on the long term survival. It may be said that both the sugar factories have failed to convert sales into net profit. In other words, managerial ability was poor in terms of controlling cost of production, administrative, selling and distributive expenses and financial charges. Therefore, the management had to focus and to take measures to reduce the cost of production and improve profitability in the years to come.

REFERENCES:

1. Bradley, J.F; "**Administrative Financial Management",** Frances & Noble, New York, 1964, p.104.
2. Howard and Upton, "**Introduction to Business Finance"**, New York: McGraw Hill, 1964, P.98.
3. Kulshrestha, N.K., **"Analysis of Financial Statements of Indian Paper Industry",** Aligarh: Neumann Prakasham, 1972, p.75.
4. **Devdatta Tare, Fakhruddin Sunelwala and Akash Agrawal (2014),** "Profitability Analysis of Selected Companies Sugar Industry Based on Their Margin on Sales", Abhinav National Monthly Referred Journal of Research in Commerce and Management, ISSN: 2277-1166, Volume-3, Issue-6, pp.13-19.
5. **Dr.Ashok Kumar.M (2015)**, "A Study on Financial Performance Analysis of Sugar Companies in Tamil Nadu", International Journal of Advance Research in Computer Science and Management Studies, ISSN: 2321-7782, Vol-3, Issue-2, pp.360-368.
6. Guthmann, H.G; "**Analysis of Financial Statements",** Prentice Hall of India, New Delhi, 1979, p.201.
7. Kennedy, R.D and McMullen, S.Y; (1969), **Op.Cit.,** p.404.
8. Helfert, E.A; "**Techniques of Financial Analysis"**, Richard D. Irwin, Illinois, 1972, p.53.