# Capital Structure- A Comparative Analysis of Sugar Industry in Karnataka

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## **ABSTRACT**

The financial performance is an important factor which indicates the growth of any industry, true in case of sugar industry also. Financial performance of the sugar industry can be studied from the viewpoint of financial structure, financial assets, working capital and profitability. the financial structure or capital structure influences the cost of Finance, capital assets, level of current assets and earnings etc. the present paper is an attempt to understand comparative analysis of capital structure among select sugar factories in Karnataka. It deals with capital structure concerning debt-equity ratio and interest coverage ratio, co-efficient of correlation between debt- equity and co-efficient of correlation between debt and operating profit and adequacy of long term funds.

KEY WORDS: capital structure, Debt-Equity, Operating Income, Interest Charge, Productivity.

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#### I. INTRODUCTION

Capital structure is the combination of debt equity; capital structure constitutes the foundational base of a concern which strengthensthe financial position of the business. A proper contribution of debt and equity is a healthy sign for the financial performance of an organisation. If a concern fails in justifying the contribution of debt equity it has its impact on the growth of the concern. A good capital structure strengthens the financial position of the concern in meeting its long term as well as short term requirements. The paper is attempting to identify the capital structure in sugar industry in Karnataka in private factories and tries to understand the strength of the sugar industry in Karnataka state. The capital structure constituted debt equity where in debt represent the debentures and other external sources of finance and equity refers to equity share capital which is collected from equity shareholders and also from the other internal sources of the organisation. A good capital structure enables company to accomplish its long-term and short-term goals at the same time minimising the cost of production and increasing the productivity and efficiency of the product or service. A balanced capital structure talks about appropriate amount of capital required, appropriate mix of capital, appropriate structure of capital and find appropriate cost of debt equity to support organisational financial goals.

# II. REVIEW OF LITERATURE

**Popli G S, Gajendra**<sup>1</sup>, "Determinants of Corporate Capital Structure of Indian Industries", this study focuses on determinants of capital structure of Indian Industries. The main object is to investigate the relationship between capital structure theories and capital structure of choice of Indian firm. The author has been applied multiple regression models on the selected Industries by taking data for the period 2005 - 2011. The main variables determinants and the capital structure of industries in India are agency cost assets structure and non-debt tax Shield and size the co-efficient of these variables are significant at one per cent orfive per cent level.

Anshuhandoo, Kapil Sharma², "A Study on Determinants of Capital Structure in India", the paper studies the most important determinants of capital structure of 870 listed Indian firms comprising both Private sector companies and Government companies for the period 2001-2010. Ten independent variables and three dependent variables have been tested using regression analysis. It deals with factors such as profitability, growth, asset tangibility, size, cost of debt; tax rate and debt serving capacity have significant impact on the leverage structure chosen and by the firms in the Indian context.

**Shrabanti Pal**<sup>3</sup>, "A study on capital structure determinants of Indian Steel Companies", this paper studies the determinants of capital structure choice of Indian steel companies. The main objective of the firm is to explore the most important factors which influence most choice of capital structure of the Steel companies in India. The study is basically empirical in nature. In the present paper 37 Indian steel Companies listed under National stock market and Bombay Stock Market constitute the sample of the study. Correlation and regression analysis has been used to explore the relationship between dependent variable leverage and other independent

variables like tangibility, size, non-debt tax shield, growth opportunity, profitability and business risk. It is found that tangibility, non-debt tax Shield, size and growth opportunity have significant effect of the leverage of the capital structure of the companies. The other two variables, profitability and business risk have insignificant effect on the capital structure of the companies.

AshivnDave, AshwinParwani, Ashish Joshi, Tejas dave<sup>4</sup>, "Study of capital structure and profitability of Indian steel sector companies", the research study attempts to investigate the association capital structure has with profit after tax to sales and extent to which it creates the impact on it. Long-term debt to equity ratio, interest coverage ratio, long term debt to total assets ratio and fixed assets to total assets ratio are taken as control variables. The study in encompasses Indian steel sector companies for decade. Appropriate Statistical Techniques have been used for analysis and better dependability of the results. The research study pointed out that long-term debt to total assets has strong negative and very significant relationship with profitability. Fixed assets to total assets havetoo strong but positive relationship profitability. Long term debts to equity and interest coverage were found to be irrelevant in terms of influencing the profitability of business enterprises.

**Sandeep Goel**<sup>5</sup>, "Capital Structure Analysis in Indian Heavy Industry the Pecking Order Dimension", the present paper attempts to analyse the financing pattern of two leading business enterprises in the sector with diverse nature of funds, viz. BHEL and L&T with regard to pecking order approach in their capital structures. A deliberate attempt has been made in choosing the sample i.e. BHEL has been taken from public sector and L&T has been taken from private sector. The reason being is to appreciate the diverse financing practices of two units in the same sector. It is found that BHEL is going for pecking order dimension in its capital structure, whereas pecking order fails in case of L&T. Also, optimality of capital structure and the impact of financial leverage on shareholders return have been analysed in the present discussion using Beta analysis and other techniques. The article therefore, contributes to the theory of capital structure with optimality and related issues with Beta approach.

## Research Gap

After reviewing various reviews of literatures, it can be observed that the authors have covered various aspects of capital structure in their own pattern; few have covered areas like agency cost, assets structure and non-debt tax shield and size of co-efficient of variables. The Other paper deal with profitability, growth, asset tangibility, size, cost of debt, tax rate and debt serving capacity and its impact on the leverage structure. The other paper deals with dependent variable leverage and other independent variables like growth opportunity, profitability and business risk etc.

The other paper deals with Association of capital structure with profit after tax to sales and extent to which it creates the impact on it. Another paper deals with financing pattern of two leading business Enterprises. The paper attempts to analyse the optimality of capital structure and the impact of financial leverage on shareholders return.

The above review of literature deals with various components of capital structure but a comparative analysis of capital structure is yet not undertaken, therefore there is a research gap in the area of comparative analysis of capital structure concerning debt-equity ratio and interest coverage ratio, co-efficient of correlation between debt- equity and co-efficient of correlation between debt and operating profit and adequacy of long term funds.

## **Statement of the Problem**

The financial performance is an important factor which indicates the growth of any industry, true in case of sugar industry also. financial performance of the sugar industry can be studied from the viewpoint of financial structure, financial assets, working capital and profitability, the financial structure or capital structure influences the cost of Finance, capital assets, level of current assets and earnings etc. the present paper is an attempt to understand comparative analysis of capital structure among select sugar factories in Karnataka.

#### **Objectives of the Study**

To evaluate the performance of capital structure of select sugar factories in Karnataka.

#### Hypothesis

 $\mathbf{H_0}$ : there is no direct relationship between debt and earnings before interest and tax of private sugar industry.

H<sub>1</sub>: there is direct relationship between debt and earnings before interest and tax of private sugar industry.

# **Need for the Study**

There were lot of research work have been undertaken on capital structure of various industries in India like determinants of corporate capital structure of Indian Industries, determinants of capital structure in India, capital structure determinants of Indian steel companies, capital structure and profitability of Indian steel sector companies and capital structure analysis in Indian heavy industry etc. But, on comparative analysis of capital

structure of private sugar factories in Karnataka is scanty. Hence, there is a need to undertake research on present topic.

# **Scope of the Study**

The study covers only select sugar factories in Karnataka and excludes all other public and co-operative sugar factories from the study. At the same time the period is confined to 10 years starting from 2005-2006 to 2014-2015, and the performance of selected factories before and after study period excluded.

## Research Design

The study is nature of desk research.

**Sources of Data:** The data required for the study collected from secondary source. The secondary data obtained from the Annual reports of the selected factories; magazines, Government reports, newspapers, internet surfing etc.

**Sample Design:** As on October 2011, the population for the study comprises of 38 private sugar factories in Karnataka. With the use simple random sampling technique the researcher selected 10 Sugar factories in the Karnataka State. However due to non-cooperation of two factories (GEM and Jamkhandi Sugars Limited) in providing data they have been out of the study. This leaves eight factories as sample and represents the sugar industry. The sample factories are given below:

- 1. Parrys Sugars Limited (Parrys)
- 2. ShriPrabhulingeshwara Sugars And Chemicals Limited (Prabhulingeshwara)
- 3. Shree Renuka Sugar Limited (Renuka)
- 4. The Ugar Sugars Works Limited (Ugars)
- 5. Athani Farmers Sugar Factory Limited (Athani)
- 6. DavangereSugar Limited (Davangere)
- 7. Sri Chamundeshwari Sugar Limited (Chamundeshwari)
- 8. Bannari Amman Sugars Limited (Bannari)

Here on words the sample factories are called in short names.

#### **Tools of Analysis**

The data collected analysed with the help of ratio analysis, trend analysis and statistical techniques wherever necessary to draw meaningful inferences.

## **Limitations of the Study**

The figures taken from the annual reports have been rounded off to two decimals of rupees in Lakhs. The data available in financial statements have been translated into pre-designed the structure format so that a meaningful interpretation could be made through inter-firm and intra-firm comparison. The format in which data have been classified is selected after careful consideration of the operations of the sugar factories. Nevertheless, the limitations do in No way act as a deterrent in drawing effective and meaningful inferences from this study.

## **Analysis of Data**

The details of debt-equity ratio, operating profit and interest coverage ratio for all the sample sugar industries (on an average basis) are shown in Table-1 in order to have comparative picture.

In consolidated position, the debt and equity, on an average, recorded at `373101.55 lakhs and `240392.70 lakhs respectively. It indicates the sugar industry is more dependent on debt funds rather than on equity funds. The high degree of co-efficient of correlation 0.810 between debt and equity suggests and supports the view. From the view of creditors, the long term financial strength was not enough to meet liabilities. The comparison of individual factory reveals that the debt on an average was highest in Parrys with `34217.81 lakhs and the lowest in Davangere with `1594.45 lakhs. The debt-equity ratio of Bannari recorded highest that is 11.06 times of equity, followed by Parrys which recorded 9.50 times of equity. The debt equity ratio of Athani, Prabhulingeshwara and Davangere evidenced second highest position by accounting 4.48times, 3.31times and 2.82 times of equity respectively. The debt-equity ratio of Renuka and Chamundeshwari was 1.72times and 1.11 times of equity. The debt-equity ratio Bannari was more satisfactory which recorded by 0.60 times of its equities.

Only Bannari long term solvency position is satisfactory of the Sugar Industry in Karnataka State during the study period. It is also observed that the Parrys recorded highest debt-equity ratio, from the creditors points of view the factory is not at all in position to borrow outsiders' fund.

In the consolidated position, the industry was able to pay interest commitment. An observation of individual factory reveals that no sample sugar industries had enjoyed that standard interest coverage ratio of four times with the exception of Bannari. It is observed that Bannari's interest payment ability was very good followed by Renuka, Chamundeshwari and Davangere. It is observed that interest payment ability of Athani,

Prabhulingeshwara and Parrys is low as compare to the standard norm as well as, other sugar Factories in Karnataka state. From the view point of creditors these Factories' ability to pay interest commitment is low.

				Ta	ble-1							
	Ca	pital Struc	ture and its Impact o	n Profitability i	n Sample Suga	ır Factories: A	A Comparative	Analysis				
Particulars	Consolidated	Parrys	Prabhuligeshwara	Renuka	Ugar	Athani	Davangere	Chamundeshwari	Bannari			
Debt-Equity	ebt-Equity Ratio											
Debt	373101.55	34217.81	16519.65	215879.41	27521.36	19738.03	13547.64	19240.30	48025.30			
Equity	240392.70	8624.80	5170.28	126370.49	9630.49	4411.42	5635.93	17356.99	75829.65			
Ratio (Times)	1.52	9.50	3.31	1.72	4.48	4.48	2.82	1.11	0.60			
Interest Cov	erage Ratio											
Operating Income (PBIT)	43845.86	1148.37	2570.53	20625.49	2675.46	2108.58	1594.45	2847.88	12604.19			
Interest Charges	31681.58	2851.76	2192.56	18527.10	2221.55	1411.61	1047.96	2179.84	3101.91			
Ratio (Times)	2.13	1.00	1.31	2.84	1.31	1.50	1.71	1.94	11.06			

Source: Table 4.3

## Co-Efficient of Correlation between Debt and Equity

Table-2 Co-Efficient of Correlation Between Debt Equity During 2006 to 2015							
Name of the Factory	<b>Co-Efficient of Correlation</b>						
Consolidated	0.8105						
Parrys	0.01420						
Prabhulingeshwara	0.5733						
Renuka	0.7224						
Ugar	0.3120						
Athani	0.9652						
Davangere	0.6245						
Chamundeshwari	0.0350						
Bannari	0.7385						

Source i)Appendix-II (A) to II(I)

The Table-2displays the co-efficient of correlation between debt and equity in sample Sugar Factories. In the consolidated position of the sugar industry, the debt and equity have a positive correlation of 0.8105. It indicates that the sugar industry was relative more dependent on borrowed funds rather than equity funds. An observation of individual sugar factory's point out that the positive correlation in all the factories suggest that they have followed more or less uniform policy of raising funds from debt as well as equity. But Parrys, Chamundeshwari and Ugars have a very low degree of positive coefficient of correlation of 0.0142, 0.0350 and 0.3120 respectively. Therefore, it may be inferred that these units did not pursue a uniform policy of raising funds from the borrowings and equity. In other factories, the trends observed in consolidated picture are repeated with some degree of variations.

## Co-Efficient of Correlation between Debt and Operating Profit

Table-3 Co-Efficient of Correlation Between Debt And Operating Profit During 2006 to2015							
Name of the Factory	Co-Efficient of Correlation						
Consolidated	-0.2197						
Parrys	-0.3894						
Prabhulingeshwara	0.3231						
Renuka	-0.1271						
Ugar	0.2474						
Athani	0.5643						
Davangere	-0.6740						
Chamundeshwari	0.3655						
Bannari	-0.3121						

**Source:** i) Appendix-I (A) to I(I)

The co-efficient of correlation between debt and operating profit in sample sugar factories is shown in Table-3. In the consolidated position, co-efficient of correlation between debt and operating profit was negative, indicating that there was no positive relation between debt and operating profit in the industry. An observation of individual sugar factory points out that almost all the sugar factories have a very low positive correlation excluding Parrys, Renuka, Davangere and Bannari. In rest of sugar factories the relation between debt and operating profit was nominal with the exception of Athani with 0.5643.

## **Hypothesis Tested**

 $H_0$ . There is no direct relationship between debt and earnings before interest and tax of private sugar industry.

H<sub>1</sub>. There is direct relationship between debt and earnings before interest and tax of private sugar industry.

## One way ANOVA in Debt and Earnings before Interest and Tax

In order test the significance of variation in the debt and Earnings before Interest and Tax in between various years the one Way ANOVA Test has been applied.

It is observed from Table-4that in between years, the variances in Debt and Earnings before Interest and Tax, is significant because the calculated values exceeded the table value of F at five per cent level of significance. It can be said that the  $H_0$  is accepted and  $H_1$  is rejected.

Table 4 One Way-ANOVA of Debt and Earnings before Interest and Tax										
Degree of Mean Square (Calculated Source of Variation Sum of Squares freedom Variance Value) P-value F critic										
Between Years	5.42047E+11	1	5.42047E+11	27.690	5.2825E-05	4.414				
Within Years	3.52354E+11	18	19575243122							
Total	8.94401E+11	19								

Source: Table 4.11

#### **Adequacy of Long-Term Funds**

Long-term funds are usually meant to finance long-term assets i.e. fixed assets but also short-term assets i.e. current assets. The excess of current assets over current liabilities, usually referred to as net working capital, has to be financed through long-term funds. If only current liabilities are to be used to finance current assets, then it is obvious that there will not be any working capital i.e. excess of current assets over current

liabilities. If working capital represents excess of current assets over current liabilities, then the use of long term funds to finance current assets is compulsory.

To examine the adequacy of long-term funds, to finance both fixed assets and core current assets, long-term funds, fixed assets and current assets are expressed as a percentage of total assets. If the percentage of long-term-funds is in excess of the percentage of fixed assets, it indicates that the long-term funds are adequate to finance the entire fixed assets and also a part of current assets. If the percentage of long-term funds is less than fixed assets, it implies that these funds are insufficient even to finance fixed asset and consequently current liabilities are used not only to finance entire current assets but also a part of fixed assets. As a result, the business enterprise has to face the problem of illiquidity in view of presence of negative net working capital. The quantum of long-term funds, fixed assets and current assets as a percentage of total assets employed is embodied in Table-5. It is evident that long-term funds in the combined position have recorded, on an average, 58.71 per cent of total invested funds while the fixed assets represented only 45.06 per cent.

					Tabl						
Long Term Funds, Fixed Assets and Current Assets as a Percentage of Total Assets of Sample Sugar Factories (2006-2015)  (in Percentage)											
Name of the Factory	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Average
Consolidated											
Long Term Funds	67.36	67.74	70.29	66.81	59.48	61.73	59.00	44.31	47.07	43.30	58.71
Fixed Assets	50.09	52.95	56.26	48.69	42.00	41.38	44.85	36.33	40.27	37.73	45.06
Current Assets	49.02	45.89	39.91	49.21	40.57	40.99	48.87	42.57	37.32	41.91	43.63
Parrys			1								
Long Term Funds	64.50	78.02	81.85	81.30	80.09	82.76	75.64	46.17	60.81	45.86	69.70
Fixed Assets	56.40	73.90	83.38	78.46	72.77	66.71	60.20	32.70	30.94	32.35	58.78
Current Assets	43.47	25.94	15.58	20.74	25.26	31.44	33.97	64.53	66.61	65.49	39.30
Prabhuligeshwara											
Long Term										1	
Funds	61.37	67.29	55.64	58.07	40.66	44.80	26.47	21.18	30.88	24.33	43.07
Fixed Assets	51.48	63.31	56.44	57.28	42.61	47.65	47.93	42.17	46.80	42.67	49.83
Current Assets	48.10	36.33	43.23	42.14	56.93	51.88	51.09	57.26	52.13	55.85	49.49
Renuka											
Long Term Funds	70.65	73.53	76.07	64.08	56.10	59.64	-	4052	39.01	34.64	57.14
Fixed Assets	63.00	68.63	63.79	41.74	34.41	37.80	-	34.60	40.86	36.75	46.84
Current Assets	36.92	29.88	28.24	55.31	37.12	35.31	-	35.14	23.06	29.72	34.52
Ugar		•	-		•	•	•		•		
Long Term Funds	42.41	36.43	46.58	49.83	41.94	34.39	26.11	30.94	30.61	27.12	36.64
Fixed Assets	26.56	26.51	40.21	40.67	32.06	28.75	23.65	26.92	26.21	26.42	29.80
Current Assets	73.36	73.44	56.27	54.66	67.58	70.97	75.01	71.16	71.56	70.99	68.50
Athani		•						•	•		
Long Term Funds	40.38	33.40	30.37	41.21	29.49	36.78	50.96	53.74	54.00	54.04	42.44
Fixed Assets	31.00	30.60	29.74	41.02	31.49	27.25	42.64	41.64	45.51	42.52	36.34
Current Assets	68.98	69.38	70.24	58.96	68.49	72.73	55.98	56.58	53.19	55.81	63.04

					Tabl	le -5					
											(Contd.)
Name of the Factory	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Average
Davangere			•		'			•			
Long Term											
Funds	68.98	65.52	61.81	58.16	64.58	60.87	48.83	44.00	71.97	63.51	60.82
Fixed Assets	52.30	48.77	42.86	38.15	35.21	35.26	29.24	45.84	45.31	48.77	42.17
Current Assets	47.67	51.20	57.11	61.83	62.05	63.70	69.76	52.35	52.28	51.21	59.92
Chamundeshwari											
Long Term											
Funds	40.21	44.18	42.88	50.84	38.86	43.24	31.34	22.17	22.03	23.06	35.88
Fixed Assets	51.95	52.53	64.98	65.91	61.55	64.18	53.29	46.30	45.99	43.63	55.03
Current Assets	41.19	42.53	34.11	33.14	37.55	26.56	19.24	40.21	41.31	45.74	36.16
Bannari						1	1				
Long Term											
Funds	79.26	79.92	76.25	75.06	77.19	75.09	73.38	67.54	69.74	68.82	74.23
Fixed Assets	49.80	47.01	41.16	51.10	60.05	46.77	45.37	40.89	39.44	39.03	46.06
Current Assets	49.67	52.13	57.19	48.47	39.63	53.18	48.59	53.30	56.27	57.02	51.55

Source: Appendix-II (A) to II (I)

The proportion of long-term funds employed exceeded the proportion of fixed assets on an average by 13.65 per cent. As such, it can be said that in sample sugar industries, long-term funds were adequate to finance the fixed assets. In all the years under reference, the long-term funds have exceeded the investment in fixed assets. Thus, it is clear that a part of current assets were also financed by long-term funds in addition to the

financing of the entire fixed assets. This can also be noticed from increasing percentage of long term funds to total assets.

An examination of individual sugar industry point out that in Parrys, Renuka, Bannari, Davangere and Athani, the proportion of long-term funds exceeded the quantum of fixed assets.

On contrary, in case of Prabhuligeshwara, Ugar, Chamundeshwari, the proportion of fixed assets exceeded the quantum of long term funds. The sample sugar industries were able to finance a part of current assets too through long term funds. Quantum of long term funds has also improved in all sample sugar factories except Prabhuligeshwara and Chamundeshwari. While the quantum of long term funds has declined in the concluding year of study and Prabhuligeshwara and Chamundeshwari, it had depicted fluctuations over the years.

## Findings of the study

A clear picture of financial structure in sample sugar factories has emerged through the analysis of internal and external source of funds, capital structure and its impact on profitability, comparative analysis of profitability enabled to assess the behaviour of trends in financial structure. The following conclusions can be drawn from the analysis of financial structure management of selected sugar factories.

- Financial structure was deceptive and unbalanced in almost all sample sugar factories under the study period, because share capital contribution is very lesser than loaned capital.
- Debt- equity mix of the sample sugar factories point out that the factories used excessively in relation to equity exception of Bannari. In case of Parrys, Athani followed by Prabhulingeshwara average debt- equity ratio is very high as compare to other sample sugar factories, it shows that these factories were using debt source more to raise finance.
- There was no relation between debt and profit before interest and tax (PBIT), as these were moving in opposite directions. Despite this, the ability pay interest was good in Bannari. In other factories the relation between debt and profit before interest and tax is dissatisfactory.
- The combined position of the sample sugars factories reveals that the long-term funds were adequate to finance fixed assets and a part of current assets too with exception of Prabhulingeshwara and Chamundeshwari. It indicates that the industry is adopting conservative financing method to finance fixed assets. Further, it can be observed that the percentage of long-term funds to total assets had been increasing. The position of individual sugar factories resembles the consolidated picture of sugar industry in Karnataka state. Hence, it is evident that the sugar factories within the industry followed the conservative method of financing the assets.

## III. SUGGESTIONS

The research findings of the financial performance of sugar industry in Karnataka state clearly reveals that the finance in industry was not used efficiently as desired. The finances of individual factory need to be managed productively with pragmatic outlook in order to facilitate steady prosperity of the industry. The factories should undertake necessary measures for restructuring their financial viability as outlined below:

- In aggregate, the sample sugar factories relied mainly on external funds. It is desirable that the factories need to repay or convert loans into Equity, and also issue fresh equity shares. This would enable the factories to reduce debt burden and avoid payment of heavy interest charges. Internal reconstruction of financial systems as per the provisions of Indian Factories Act, 1956 in particularly necessary in Parrys, Athani and Prabhulingeshwara.
- To strengthen the equity base, the sample sugar factories have to raise finances through the issue of equity shares more particularly, Ugars, Prabhulingeshwara, Athani, Bannari, Renuka and Chamundeshwari.
- Capital structure and its impact on profitability analysis reveal that there is no relation between debit and equity. In other words, the practice of trading on equity did not increase earnings to the shareholders in almost all the sample sugar factories. As the earnings were not adequate to cover interest charges, there was the possibility of non-payment of interest charges to creditors, which may cause financial problems. Therefore, under these circumstances, it is better for the sample sugar factories particularly, Parrys, Prabhulingeshwara and Ugarsnot to opt for debt capital including short-term loans and advances. Instead, the present debt can be retired through the issue of equity shares.

# IV. CONCLUSION

The analysis of finance structure of sample sugar industries point out that the industry, more or less, depended on both internal and external sources. Percentage of external funds to total funds on the whole contributed higher position of the total sources of the sugar industry. As such, the industry's capacity to generate external funds was identifiable. Further, the industry depended on short term funds for financing short term programme s. it may be concluded that the financial structure of sugar industry was balanced as it has earned

profit, which contributed to internal sources of funds. Only Bannari had more Internal funds, while Shree Renuka, Chamundeshwari, Ugar, on the other hand, depended more on external funds. Further, Parrys, Athani, Sri Prabhulingeshwara and Davangere had relied heavily on external funds as its equity base was very thin.

The debt-equity mix of Parrys, Prabhulingeshwara, Athani and Ugar was lopsided since the debt was very heavy in relation to equity. Debt proportion of other four sugars industries was also greater than equity but proportionately at lesser percentage. Further, the interest coverage ratio of Parrys was meagre but in other sugar factories it was inconsistent structure of Parrys, Prabhulingeshwara, Athani and Ugars it was unjustified. The present debt-equity ratio requires immediate restructuring. If restructuring does not take place, the present financial crisis in some sample sugar factories, is sure to deepen further. It is observed that long-term funds were higher than fixed assets in some sample sugar factories. On the other hand, fixed assets were higher than long-term funds in some sample sugar factories. Therefore, it may be inferred that in some sample Sugar factories, long-term funds were adequate to finance their fixed assets requirements and core current assets. On the other hand, in some sample sugar factories long-term funds were inadequate to finance their fixed assets requirements, it means some sample sugars factories are using current liabilities to finance its current assets and also to finance a part of fixed assets. It is not a healthy sign for the factory. The sample sugar factory, whose long term funds were inadequate, should take steps to increase long-term sources of funds to meet the requirement of fixed assets and a part of current assets too.

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