CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

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This Chapter deals with the analysis of financial performance of Datta sugar factory and Kagal sugar factory for a period of five years from 2004-05 to 2008-09. Various ratios have been calculated to assess the financial health of both factories, finally comparative statements are prepared to determine the effectiveness of finance function of the both the factories.

1) Current Ratio = $\dfrac{\textbf{Current Assets}}{\textbf{Current Liabilities}}$

A) Current Ratio of Datta Factory

Table No. 4.1

Current Assets and Current Liabilities of Datta Factory

(Fig. in Lakhs)

Year	Current Assets	Current Liabilities	Ratio
2004/2005	169.12	40.30	4:1:1
2005/2006	167.96	56.91	2:9:1
2006/2007	114.09	47.73	2.3:1
2007/2008	80.95	68.17	1.1:1
2008/2009	181.25	69.81	2.5:1

Source: Annual Reports of Datta Factory

B) Current Ratio of Kagal factory

Table 4.2

Current Assets and Current Liabilities of Kagal factory

(Fig. in Lakhs)

Year	Current Assets	Current Liabilities	Ratio
2004/2005	107.43	49.94	2.1:1
2005/2006	108.77	67.30	1.6:1
2006/2007	113.81	56.22	2.2:1
2007/2008	88.14	48.84	1.8:1
2008/2009	139.92	63.55	2.2:1

Source: Annual Reports of Kagal Factory

C) Comparison of current ratio

Table 4.3

Comparison of current ratio

Year	Datta Factory	Kagal Factory
2004/2005	2:9:1	2.1:1
2005/2006	4:1:1	1.6:1
2006/2007	2.3:1	2.0:1
2007/2008	1.1:1	1.8:1
2008/2009	2.5:1	2.2:1

Interpretation

Table No. 4.1 shows the current assets, current liabilities position of the Datta factory for five year 2004-05 to 2008-09. As seen from the Table the current ratio of Datta factory has remained at much higher level than the standard ratio of 2:1 barring the year 2007-08 in which it was 1.1:1.

The current assets, current liabilities position and the current ratio of Kagal factory is shown in Table No. 4.2. As seen from the Table the current ratio was satisfactory in the years 2004-05, 2006-07 & 2008-09. However in the year 2005-06 & 2007-08 it was below the standard ratio 2:1. This means that the current assets were not twice the current liabilities.

Table No. 4.3 shows comparison between current ratio of Datta factory and Kagal factory. The current ratio of Datta factory is far better than that of Kagal factory. This indicates that the short term solvency of the Datta factory is better than that of Kagal factory.

2) Quick Ratio

$$\textbf{Quick Ratio} = \frac{\textbf{Quick Assets-Inventories}}{\textbf{Current Liabilities}}$$

A) Quick Ratio of Datta Factory

Table 4.4

Quick Assets and Current Liabilities of Datta Factory

(Fig. in Lakhs)

Year	Quick Assets	Current Liabilities	Ratio
2004/2005	132.68	40.30	3.2:1
2005/2006	159.43	56.91	2.8:1
2006/2007	104.26	47.73	2.1:1
2007/2008	73.45	68.17	1.0:1
2008/2009	171.59	69.81	2.4:1

Source: Annual Reports of Datta Factory

B) Quick Ratio of Kagal Factory

Table 4.5

Quick Assets and Current Liabilities of Kagal Factory

(Fig. in Lakhs)

Year	Quick Assets	Current Liabilities	Ratio
2004/2005	11.93	49.94	0.23:1
2005/2006	27.27	67.30	0.40:1
2006/2007	59.15	56.22	1.05:1
2007/2008	36.10	48.84	0.73:1
2008/2009	32.38	63.55	0.50:1

Source: Annual Reports of Kagal factory

C) Comparison of Quick Ratio

Table 4.6

Comparison of Quick Ratio

Year	Datta Factory	Kagal Factory
2004/2005	3.2:1	0.23:1
2005/2006	2.8:1	0.40:1
2006/2007	2.1:1	1.05:1
2007/2008	1.0:1	0.73:1
2008/2009	2.4:1	0.50:1

Interpretation

Table No. 4.4 shows the quick assets, current liabilities position and the quick ratio of Datta factory from 2004-05 to 2008-09. As seen from the Table the quick ratio of Datta factory has remained at much higher level than the standard ratio of 1:1 except the year 2007-08 in which it was 1.0:1.

The quick assets, current liabilities position and the quick ratio of Kagal factory is shown in Table No. 4.5. As seen from the Table the quick ratio of Kagal factory has remained at much low level than the standard norm. It may be an indication of bad liquidity position. However, in the year 2006-07 quick ratio increased to 1.05:1 and was just equal to the standard norm. It is clear that the factory's short term liquidity position is not satisfactory.

Table No. 4.6 shows comparison between quick ratio of Datta factory and Kagal factory. The quick ratio of Datta factory was far better than that of Kagal factory. This indicates that the short term solvency position of Datta factory was better than that of Kagal factory.

2) Leverage/Capital Structure Ratio/Financial Ratio

1) Debt Equity Ratio = $\dfrac{\textbf{Outsiders Funds}}{\textbf{Shareholders Funds}}$

A) Debt Equity Ratio of Datta Factory

Table No. 4.7

Outsiders Funds and Shareholders Funds of Datta Factory

(Fig. in Lakhs)

Year	Outsiders Funds	Shareholders' Funds	Ratio
2004/2005	169.15	81.81	2.0:1
2005/2006	149.72	84.48	1.7:1
2006/2007	112.44	90.93	1.2:1
2007/2008	58.20	94.63	0.6:1
2008/2009	155.60	99.55	1.5:1

Source: Annual Reports of Datta factory

B) Debt of Equity ratio of Kagal Factory

Table 4.8

Outsiders and Shareholders Funds of Kagal Factory

(Fig. in Lakhs)

Year	Outsiders Funds	Shareholders' Funds	Ratio
2004/2005	67.88	55.80	1.21:1
2005/2006	42.62	67.39	0.63:1
2006/2007	68.87	73.57	0.93:1
2007/2008	80.37	86.52	0.92:1
2008/2009	99.11	110.22	0.89:1

Source: Annual Reports of Kagal factory

C) Comparison of debt Equity Ratio

Table 4.9

Comparison of debt Equity Ratio

Year	Datta Factory	Kagal Factory
2004/2005	2.0:1	1.21:1
2005/2006	1.7:1	0.63:1
2006/2007	1.2:1	0.93:1
2007/2008	0.6:1	0.92:1
2008/2009	1.5:1	0.89:1

Interpretation

Table No. 4.7 shows the outsiders funds and share holders funds and the debt equity ratio of Datta factory from 2004-05 to 2008-09. As seen from the Table the Datta factory has used more outsiders funds in its capital structure.

The outsiders funds, shareholders funds and debt equity ratio of Kagal factory is shown in Table No, 4.8. As seen from the Table Kagal factory proportion has used moderately the debt funds.

Table No. 4.9 shows comparison debt equity ratio of Datta factory and Kagal factory. The debt equity ratio of Datta factory was far better than that of Kagal factory. This indicates that the long term solvency of Datta factory was better than that of Kagal factory. Datta factory has made good use of outsiders funds to finance its activities in corporation with Kagal factory.

2) Proprietary Ratio = $$\frac{\textbf{Shareholders Funds}}{\textbf{Total Assets}} \times 100$$

A) Proprietary Ratio of Datta Factory

Table 4.10

Shareholders Funds and Total Assets of Datta Factory

(Fig. in Lakhs)

Year	Shareholders' Funds	Total Assets	Ratio
2004/2005	81.81	289.02	28.30
2005/2006	84.48	290.63	29.06
2006/2007	90.93	251.10	36.21
2007/2008	94.63	222.01	42.62
2008/2009	99.55	324.60	30.66

Source: Annual Reports of Datta factory

B) Proprietor Ratio of Kagal Factory

Table 4.11

Shareholders Funds and Total Assets of Kagal Factory

(Fig. in Lakhs)

Year	Shareholders' Funds	Total Assets	Ratio
2004/2005	55.80	173.67	32.12
2005/2006	67.39	177.32	38.00
2006/2007	73.57	198.67	37.00
2007/2008	86.52	215.74	40.10
2008/2009	110.22	272.88	40.39

Source: Annual Reports of Kagal factory

C) Comparison of Proprietary Ratio

Table 4.12

Comparison of Proprietary Ratio

Year	Datta Factory	Kagal Factory
2004/2005	28.30	32.12
2005/2006	29.06	38.00
2006/2007	36.21	37.00
2007/2008	42.62	40.10
2008/2009	30.66	40.39

Interpretation

Table No. 4.10 and 4.11 show the proprietary ratio of Datta factory & Kagal factory for a period five years from 2004-05 to 2008-09. As seen from Table No. 4.10 the proportion of proprietors funds in total assets of the factory has increased from 28.30 percent to 30.66 percent. In the year

2006-07 and 2007-08 it was 36.21 percent and 42.62 percent respectively. This reveals that the factory has used outsider fund more to finance its total assets.

In Kagal factory the proportion of proprietors funds in total assets was found above 30 percent. It varied between 32.12 and 40.39 percent over the period of study.

As shows in Table No. 4.12 it is clear that Kagal factory had depended more on proprietors funds, approximately 10 percent more than Datta factory.

3) Fixed Assets Ratio = $\dfrac{\textbf{Fixed Assets}}{\textbf{Proprietary Funds}}$

A) Fixed Assets Ratio of Datta Factory

Table 4.13

Fixed Assets and Proprietors funds of Datta factory

(Fig. in Lakhs)

Year	Fixed Assets	Proprietors Fund	Ratio
2004/2005	111.80	81.81	1.36:1
2005/2006	115.27	84.48	1.36:1
2006/2007	117.59	90.93	1.29:1
2007/2008	118.06	94.63	1.24:1
2008/2009	120.29	99.55	1.20:1

Source: Annual Reports of Datta factory

B) Fixed Assets of Kagal Factory

Table 4.14

Fixed Assets and Proprietors Fund of Kagal Factory

(Fig. in Lakhs)

Year	Fixed Assets	Proprietors fund	Ratio
2004/2005	64.86	55.80	1.16.1
2005/2006	67.26	67.39	0.99.1
2006/2007	83.58	73.57	1.13.1
2007/2008	73.74	86.72	0.85.1
2008/2009	78.04	110.22	0.70.1

Source: Annual Reports of Kagal factory

C) Comparison of Fixed Assets Ratio

Table 4.15

Comparison of Fixed Assets Ratio

Year	Datta Factory	Kagal factory
2004/2005	1.36:1	1.16.1
2005/2006	1.36:1	0.99.1
2006/2007	1.29:1	1.13.1
2007/2008	1.24:1	0.85.1
2008/2009	1.20:1	0.70.1

Interpretation

Table No. 4.13 and 4.14 show the fixed assets ratio of Datta factory and Kagal factory for a period five years from 2004-05 to 2008-09. As seen from Table No. 4.13 the proportion of proprietors funds in fixed assets of the factory has increased from 1.20.1 percent to 1.29.1 percent. In the year 2004-05 and 2005-06 it was 1.36.1 percent and 1.36.1 percent respectively. This reveals that the factory has used outsider funds more to finance its fixed assets.

In Kagal factory the proportion of proprietors funds in fixed assets decreased from 1.16:1 to 0.70:1 percent over the period of study.

Table 4.15 shows comparison of fixed assets ratio of Datta factory and Kagal factory. It is clear that Kagal factory had depended more on proprietors funds, approximately 20 percent more than Datta factory.

3. Activity Ratios/Turnover Ratio

1) Fixed Assets Turnover Ratio = $\frac{\textbf{Net Sales}}{\textbf{Net Fixed Assets}}$

A) Fixed Assets Turnover Ratio of Datta Factory

Table 4.16

Sales and Fixed Assets of Datta factory

(Fig. in Lakhs)

Year	Sales	Fixed Assets	Ratio (times)
2004/2005	218.45	111.80	1.95
2005/2006	119.23	115.27	1.03
2006/2007	165.15	117.59	1.40
2007/2008	173.18	118.06	1.46
2008/2009	224.82	120.29	1.86

Source: Annual Reports of Datta factory

B) Fixed Assets Turnover ratio of Kagal Factory

Table 4.17

Sales and Fixed Assets of Kagal Factory

(Fig. in Lakhs)

Year	Sales	Fixed Assets	Ratio
2004/2005	138.75	64.86	2.13
2005/2006	156.04	67.26	2.31
2006/2007	128.84	83.58	1.54
2007/2008	124.90	73.74	1.69
2008/2009	186.39	78.04	2.38

Soure: Annual reports of Kagal factory

C) Comparison of Fixed Assets Turnover Ratio

Table 4.18

Comparison of Fixed Assets Turnover Ratio

Year	Datta Factory	Kagal Factory
2004/2005	1.95	2.13
2005/2006	1.03	2.31
2006/2007	1.40	1.54
2007/2008	1.46	1.69
2008/2009	1.86	2.38

Interpretation

Table No. 4.16 and 4.17 show the fixed assets turnover ratio of Datta factory and Kagal factory for a period of five years from 2004-05 to 2008-09. As seen from Table 4.16 fixed assets turnover ratio from the year 2004-05 to 2008-09 was 1.95, 1.03, 1.40, 1.46 and 1.86 respectively and average ratio is 1.54. In all the years ratio was not satisfactory.

Table 4.17 shows the fixed assets turnover ratio of Kagal factory. As seen from Table of Kagal factory in overall 5 years the ratio is always below the standard ratio for the year 2004-05 to 2008-09 are 2.13, 2.31, 1.54, 1.69 and 2.38 respectively and average ratio is 2.01. All the years ratio is satisfactory.

Table No. 4.18 shows comparison fixed assets turnover ratio of Datta factory and Kagal factory. It was clear that Datta factory had an indication of under utilization of fixed assets and Kagal factory had an indication of over utilization.

2) Total Assets of Turnover Ratio = $\frac{\textbf{Net Sales}}{\textbf{Total Assets}}$

A) Total Assets of Turnover Ratio of Datta Factory

Table 4.19

Sales and Total Assets of Datta Factory

(Fig. in Lakhs)

Year	Sales	Total Assets	Ratio (times)
2004/2005	218.45	289.02	0.75
2005/2006	119.23	290.63	0.41
2006/2007	165.15	251.10	0.65
2007/2008	173.18	222.01	0.78
2008/2009	224.82	324.60	0.69

Soure: Annual reports of Datta factory

B) Total Assets of Turnover Ratio of Kagal Factory

Table 4.20

Sales and Total Assets of Kagal Factory

(Fig. in Lakhs)

Year	Sales	Total Assets	Ratio (Times)
2004/2005	138.75	173.67	0.79
2005/2006	156.04	177.32	0.87
2006/2007	128.84	198.67	0.64
2007/2008	124.90	215.74	0.57
2008/2009	186.39	272.88	0.68

Source: Annual Reports of Kagal factory

C) Comparison of Total Assets of Turnover Ratio

Table 4.21

Comparison of Total Assets of Turnover Ratio

Year	Datta Factory	Kagal Factory
2004/2005	0.75	0.79
2005/2006	0.41	0.87
2006/2007	0.65	0.64
2007/2008	0.78	0.57
2008/2009	0.69	0.68

Interpretation

Table No. 4.19 shows that the total assets turnover ratio of Datta factory from 5 years 2004-05 to 2008-09. As seen from Table of Datta factories ratio varied between the range of 0.41 and 0.78 times. The low ratio indicates a low degree of effectiveness in use of assets.

Table No. 4.20 shows that the total assets turnover ratio of Kagal factory from 2004-05 to 2008-09. As seen from the table Kagal factory ratio varied between the range of 0.64 and 0.87 times. The low ratio indicates a low degree of effectiveness in use of assets.

Table No. 4.21 shows comparison of total assets turnover ratio of Datta factory and Kagal factory. It was clear that Datta factory failed in efficient utilization of total assets. This indicates that the sales generated per rupee of investment in total assets were less.

3) Current Assets Turnover Ratio = $\dfrac{\textbf{Net sales}}{\textbf{Current Assets}}$

A) Current Assets Turnover Ratio of Datta Factory

Table 4.22

Sales and Current Assets of Datta Factory

(Fig. in Lakhs)

Year	Sales	Current Assets	Ratio (in times)
2004/2005	218.45	169.12	1.29
2005/2006	119.23	167.96	0.70
2006/2007	165.15	114.09	1.44
2007/2008	173.18	80.95	2.13
2008/2009	224.82	181.25	1.24

Source: Annual Reports of Datta factory

B) Current Assets Turnover Ratio of Kagal Factory

Table 4.23

Sales and Current Assets of Kagal Factory

(Fig. in Lakhs)

Year	Sales	Current Assets	Ratio (in times)
2004/2005	138.75	107.43	1.29
2005/2006	156.04	108.77	1.43
2006/2007	128.84	113.81	1.13
2007/2008	124.90	88.14	1.41
2008/2009	186.39	139.92	1.33

Source: Annual Reports of Kagal factory

C) Comparison of current Assets Turnover Ratio

Table 4.24

Comparison of current Assets Turnover Ratio

Year	Datta Factory	Kagal Factory
2004/2005	1.29	1.29
2005/2006	0.70	1.43
2006/2007	1.44	1.13
2007/2008	2.13	1.41
2008/2009	1.24	1.33

Interpretation

Table No. 4.22 shows that the current assets turnover ratio of Datta factory from 2004-05 to 2008-09. As seen from the Table the current assets turnover ratio was low in all the years except 2007-08 in which, it was above 2 percent. The low ratio is an indicator of the poor utilization of current assets.

Table No. 4.23 show that the current assets turnover ratio of Kagal factory from 2004-05 to 2008-09. As seen from the Table the current assets turnover ratio. It was level 1.5 percent which is an indication of poor utilization of the current assets.

Table No. 4.24 shows comparison current assets turnover ratio of Datta factory and Kagal factory. In case of both the factory the current assets turnover ratio was low shows poor utilization of current assets.

4. Profitability Ratio

1. Net Profit Ratio $$\frac{\textbf{Net profit}}{\textbf{Sales}} \textbf{X100}$$

A) Net Profit Ratio of Datta Factory

Table 4.25

Net profit and Net Sales of Datta Factory

(Fig. in Lakhs)

Year	Net Profit	Net Sales	Ratio (in Percentage)
2004/2005	225	218.45	1.03
2005/2006	68	119.23	0.58
2006/2007	-125	165.15	-0.75
2007/2008	-227	173.18	-1.31
2008/2009	366	224.82	1.62

Source: Annual Reports of Datta Factory

B) Net profit Ratio of Kagal Factory

Table 4.26

Net profit and Sales of Kagal Factory

(Fig. in Lakhs)

Year	Net Profit	Sales	Ratio (in Percentage)
2004/2005	16.31	138.75	0.11
2005/2006	16.97	156.04	0.10
2006/2007	28.91	128.84	0.22
2007/2008	50.93	124.90	0.40
2008/2009	25.22	186.39	0.13

Source- Annual reports of Kagal factory

C) Comparison of Net profit Ratio

Table 4.27

Comparison of Net profit Ratio

Year	Datta Factory	Kagal Factory
2004/2005	1.03	0.11
2005/2006	0.58	0.10
2006/2007	-0.58	0.22
2007/2008	-1.31	0.40
2008/2009	1.62	0.13

Interpretation:

Profitability position of Datta factory and Kagal factory is shown in the Table No. 4.29 and 4.29 respectivelly. As seen from Table No. 4.28 in Datta factory earned Net profit in years 2004-05, 2005-06 and 2008-09 only. It incurred Net loss in the years 2006-07 and 2007-08. The Net profit ratio was very poor below 2%.

In Kagal factory the net profit ratio was very-very poor i.e. below 0.5 percent in all the years of study. It is an indication of overall inefficiency of the factory.

Table No. 4.30 shows comparison of Net profit ratio of Datta factory and Kagal factory. As seen from the Table both factories were not efficient managed and the Net profit ratio in both cases was very poor.