Research Paper Management

Profitability Performance Of Dairy Industry in Andhra Pradesh – A Case Study of Kdmpmacu (Vijaya Dairy) Limited - Vijayawada

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ABSTRACT
Dairy Industry is highly concentrated industry with the top five sectors constituting the majority of the country's Gross Domestic Product (GDP) and National income. This paper is an attempt to evaluate the financial health of the Dairy industry in Andhra Pradesh with the help of some financial ratios and correlation co-efficient. Profitability is the Key measurement of the financial performance of any enterprises which is taken for this study. Measuring current and past profitabilities and projecting future profitabilities is very important. For this purpose, the study of the co-operative sector unit KDMPMACU (Vijaya Dairy) Limited, which is one of the low capital intensive have been conducted.

KEYWORDS National Income, Financial Health, Profitability, Financial Ratios

Introduction:
India has emerged today as the largest producer of milk in the world. This has been achieved through "operation flood" one of the world's largest dairy development programmes, which created strong linkages between the rural producers and urban consumers. The Indian dairy sector contributes a large share in the agriculture at Gross Domestic Product (GDP). In the early 1990s, the Government of India initiated major trade policy reforms, which favoured increasing privatization and liberalization of all sector of the economy and dairy sector was no exception to this. Dairy industry, particularly, the handling, processing and marketing of fluid milk, which was reserved mainly for the cooperative sector, was delicensed in June 1991. The private sector companies including multi-nationals were allowed to set up milk processing and product manufacturing plants. The basic philosophy underlying delicensing was to encourage the competition in procurement and marketing of milk, thus increasing value for both producers and consumers. Although delicensing attracted a large number of players, concerns on issue like excess capacity, sale of contaminated / substandard quality of milk etc. induced the Government to promulgate the Milk and Milk Products Order (MMPO) 1992, some provisions of which were again modified in April-1993. Now-a-days, Indian dairy industry will have face the world dairy markets At the time in changing scenario Andhra Pradesh State is undergoing considerable modernization with latest technology. It will be right to study and analyse the performance of the district co-operative milk unions of Andhra Pradesh with reference to KDMPMACU (Vijaya Dairy) Limited and to suggest measure to cost control and improve their profitability.

Research Design and Methodology:-
Objectives:-
Following are the objectives of this study:-
- To examine the profitability performance with the help of some important parameters such as gross profit ratio, net profit ratio, operating profit ratio, return on investment, return on capital employed, return on equity and operating ratio.
- To examine the earning capacity of Vijaya Dairy and testing significance of correlation by student t-test.
- To assess the critical factors affecting the profitability of Vijaya Dairy, and
- To suggest for the betterment of the earning on the basis of findings of the study.

Hypothesis of the Study:
- Profitability of the company remains similar throughout the year.
- Profitability is significantly correlated with the investment of the Dairy.

Data Sources and Period of the Study:
In order to meet the objectives of the study, secondary data were collected from the published annual reports of the Vijaya Dairy. These financial data are classified, tabulated and edited as per the requirement of the profitability analysis. This study has covered ten years' data from 2003-04 to 2012-13 for the analysis.

Limitations of the Study:
- The study covers only a period of 10 years i.e. 2003-04 to 2012-13 for the profitability analysis of Vijaya Dairy, Vijayawada only.
- The secondary data has been culled out from published annual reports only.

Analysis:
The following profitability ratios are used in this study:

Goss Profit Ratio	Goss Profit / Net Sales x 100
Net Profit Ratio	Net Profit / Net Sales x 100
Operating Profit Ratio	Operating Profit / Net Sales x 100
Operating Ratio	Operating Cost / Net Sales x 100
Return on Investment	EBIT / Total Capital Employed x 100 Where Total Capital Employed= Total Net Fixed Assets (including Capital Work in Progress) + Net Current Assets
Productivity Ratio	Gross Profit / Total Sales x 100
Return on Equity	Net Profit / Net Worth x 100

To analyse the relationship between profit and sales and between profitability and investments, coefficient of correlation has been used and tested the significance with the help of student t-test.

Results and Discussion:

Table-1 shows that the Gross Profit (G.P.) Ratio of the company was fluctuating between 49.6 - 78.3 per cent. It is highest in 2006-07 and the least in 2012-13. The gross profit ratio decreased constantly except in the year 2006-07. Vijaya Dairy is in the good position with the average gross profit ratio during the study period touching 65.0 per cent and S.D. 10.4. But the decreasing trend is a serious problem for the company.

Net profit of the company during the study period ranged from 8.71 percent - 40.09 per cent. Net profit ratio has the maximum value in the year 2006-07 and a minimum in 2012-13. The net profit ratio in the initial years i.e. 2003-04 to 2006-07 increased subsequently but declined to the least. The average net profit ratio for the study period was 23.9 per cent, which is satisfactory.

Table -1: Profitability Ratios of Vijaya Dairy

Year	Gross Profit (Rs in Lakh)	Net Profit (Rs in Lakh)	Operating Profit (Before Depreciation) (Rs in Lakh)	Operating Cost (Rs in Lakh)	Net Sales (Rs in Lakh)	Gross Profit Ratio (%)	Net Profit Ratio (%)	Operating Profit Ratio (%)	Operating Ratio (%)
2003-04	2,197.85	737.37	1,526.82	1,718.71	3114.37	70.6	23.68	49.03	55.19
2004-05	3,121.42	1234.84	2,315.01	1,983.08	4123-96	75-7	29.94	56.14	48.09
2005-06	3,548.71	1562.20	2,648.30	2,305.40	4851.90	73.1	32.20	54.58	47.52
2006-07	4,649.67	2381.38	3,632.52	2,410.63	5940.19	78.3	40.09	61.15	40.58
2007-08	3,587.02	1631.52	2,333.59	2,800.63	4988.80	71.9	32.70	46.78	56.14
2008-09	3,294.30	1272.27	1,790.21	3,427.05	5094.52	64.7	24.97	35.14	67.27
2009-10	2,769.44	814.22	1,090.36	4,084.15	5055.66	54.8	16.11	21.57	80.78
2010-11	3,501.52	1069.30	1,594.09	4,461.67	5958.98	58.8	17.94	26.75	74.87
2011-12	3,387.04	849-50	1,144.91	5,466.66	6,500.27	52.1	13.07	17.61	84.10
2012-13	3,380.63	592.83	906.87	6,009.61	6,809.45	49.6	8.71	13.32	88.25
Mean	**3343.8**	**1214.5**	**1898.3**	**3466.8**	**5243.80**	**65.0**	**23.9**	**38.2**	**64.3**
S.D.	**626.2**	**536.3**	**841.9**	**1490.8**	**1110.10**	**10.4**	**9.9**	**17.5**	**17.0**

Source: Calculated from Annual Reports of Vijaya Dairy.

The Operating Profit Ratio (OPR) in the years i.e. 2003-04 to 2006-07 increased afterwards and declined to the least in the year 2012-13. During the study period the highest OPR was 61.15 per cent in the year 2006-07 and the least in 2012-13. It also indicated decreasing trend of profitability of the company in recent years which is not a good indication for the Dairy.

The operating ratio fluctuated from 47.52 per cent in the year 2006-07 to 88.25 percent in the year 2012-13. It has decreased from 55.19 per cent in 2003-04 to 40.58 per cent in the year 2007-08 and thereafter it started increasing and reached the highest at 88.25 per cent in 2012-13. As the higher operating ratio indicates lower efficiency in the production and lower operating ratio indicates higher efficiency in the production, the increasing trend of operating ratio is a serious matter for the company management. It is the main cause of the decreasing trend of profitability performance of the company as the overall sales turnover presented an increasing trend during the study period.

Table -2: Efficiency Ratios of Vijaya Dairy

Year	EBIT (Rs. in Lakh)	Gross Profit (Rs. in Lakh)	Net Profit (Rs. in Lakh)	Total Capital Employed (Rs. in Lakh)	Total Assets (Rs. in Lakh)	Net Worth (Rs in Lakh)	Return on Investment (%)	Productivity Ratio (%)	Return on Equity (%)
2003-04	1,170.88	2,197.85	737.37	4821.05	5,885.33	3756.67	24.29	37.34	19.63
2004-05	1,930.88	3,121.42	1234.84	5350.21	6,156.65	4697.81	36.09	50.70	26.29
2005-06	2429.64	3,548.71	1562.20	6534.40	8,307.96	5892.67	37.18	47.48	26.51
2006-07	3,620.40	4,649.67	2381.38	8307.96	9,526.57	7695.22	43.58	48.81	30.95
2007-08	2,468.10	3,587.02	1631.52	9366.85	11,022.76	8874.45	26,35	32.54	18.38
2008-09	1,931.12	3,294.30	1,272.27	9495.23	12,324.40	9769.81	20.34	26.73	13.02
2009-10	1,157.14	2,769.44	814.22	10069.42	13,276.10	10395.58	11.49	20.86	7.83
2010-11	1,525.77	3,501.52	1,069.30	10541.28	14,613.90	11164.61	14.47	23.96	9.58
2011-12	1198.62	3,387.04	849-50	11851.34	15,520.78	11715.08	10.11	21.82	7.25
2012-13	897.59	3,380.63	592.83	11416.04	16,326.95	11932.45	7.86	20.71	4.97
Mean	**1833.0**	**3343.8**	**1214.5**	**8775.4**	**11296.1**	**8589.4**	**23.2**	**32.6**	**16.4**
S.D.	**832.7**	**626.2**	**536.3**	**2465.4**	**3756.0**	**2960.6**	**12.5**	**11.6**	**9.3**

Source: Calculated from Annual Reports of Vijaya Dairy

Table-2 shows the relationship of profitability with the investment and net worth of the company. As the Table-2 indicates the Return On Investment (ROI), Productivity Ratio (PR) and ROE (Return on Equity) all disclosed an increasing trend from the year 2003-04 to 2006-07 and decreasing trend from 2006-07 to 2012-13 except in the year 2010-11. In the year 2010-11 the given ratios disclosed an increase over the previous year. The highest ROI was 43.58 per cent for the year 2006-07 and the lowest was 7.80 per cent in the year 2013-14. Average ROI during the study period was 23.20 percent.

Productivity Ratio which shows the return on total assets was highest 48.81 per cent for the year 2006-07 and lowest 20.71 per cent in 2012-13- The average productivity ratio for the study period was 32.6 per cent as shown in Table-2.

Return on equity which indicate the return on shareholders' fund was the highest at 30.95 per cent in 2006-07 and lowest 4.97 per cent in the year 2012-13. The average value of ROE was 16.4 per cent during the study period.

The average values of ROI, PR and ROE for the study period was good but the decreasing trend of these ratios may create a problem for the company and also affect the faith of its participative members provided it takes timely steps to stem the downward trend.

Correlation(r) and Student t-Test
Table-3: Correlation(r) and Student t-Test

Particulars	Net Profit to Net Sales	Operating Profit to Capital Employed	Net Profit to Net Worth
Correlation Value (r)	0.01757	-0.47046	-0.2714
|t| calculated	0.049703	1.507964	0.79865
T critical	2.306	2.306	2.306
Significant	No	No	No
Level of Significant	5%	5%	5%

Table-3 indicates the correlation and student t-test value, It show a very low positive correlation between net profit and net sales, which indicate that the profit is correlated to some other factors like operating expenses. Negative correlation between operating capital employed and net profit worth is observed. This negative correlation is just opposing all the theories, however, it is found insignificant i.e., there is no any significant correlation between profit and sales, and profit and investment.

Findings and Conclusions:

- Gross profit ratio of the company was positive in the study period and satisfactory because the average GP ratio stood at 65 per cent. But it showed a decreasing trend in the last six years of the study period. The decreasing rate was approximately 8 percent in the middle of the study period and 4 per cent in last three years of the study period warranting the serious attention of the company. The average net profit ratio for the study period is 23.9 percent is considered satisfactory. But the decreasing trend of net profit margin and very low rate of net profit ratio during the last two years of the study period is a serious matter for the company. Operating profit ratio is also satisfactory for the study period. But the decreasing trend is also shown here. The increasing operating ratio indicates that company has no control over its operating cost and expenses like selling and distribution expense, administrative expense, cost of production etc. Operating ratio had a great impact in terms of decrease in the value of profitability ratios. The company should control its production cost to increase the profitability.
- Return on Investment, Productivity Ratio, Return on Equity has' the sign of the decreasing trend in the last six years showing lower rate of growth in profitability as compared to the investment.
- There is a weak positive correlation between Net Profit and Net Sales. Operating profit to Capital Employed and Net Profit to Net Worth ratios show a negative and weak correlation. However, all the correlations are showing the insignificant impact during study period.

Based on the analysis of various data, it is clear that die profitability depends on the optimal utilization of resources; therefore, the company should utilize its resources more efficiently to minimize the cost of production (operating cost) and maximize profitability.

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