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## A COMPARATIVE STUDY OF FINANCIAL STATEMENT OF DISTRICT CO-OPERATIVE DAIRIES OF NORTH GUJARAT

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### ABSTRACT

*District co-operative dairies play very imperative role for enhancing economic growth and promoting equitable regional development. In North Gujarat region of the Gujarat state, there is a considerable development of co-operative dairies like The Mehsana District Milk Producers Union Ltd. (Dudh Sagar Dairy), The Banaskantha District Milk Producers Union Ltd.(Banas Dairy) etc. All these co-operative dairies are working under the guidelines of GCMMF (Gujarat Co-Operative Milk Marketing Federation). These dairies are not only providing the livelihood to farmers, employment to people but continuously provides milk and milk related products to Gujarat state and neighboring states. A financial statement furnish information pertaining to strength of particular dairy so here we, as a researchers, have made sincere efforts to measure the financial position of each co-operative by applying different methods of analysis like comparative statement, common size statement, trend percentage, statement of change in working capital, cash flow statement, ratio analysis etc.*

### KEYWORDS

Ratio, Co- operative Union, Dairy.

### INTRODUCTION

In India Dairy Business has been practiced as rural cottage industry over the last couple of the years. Semi-commercial dairy started with the establishment of military dairy farms and co-operative milk unions throughout the country towards the end of the 19th century. Since Independence this Industry has made rapid progress. A large number of modern milk and milk product factories have since been established. The organized dairies in India have been successfully engaged in the routine commercial production of pasteurized bottled milk for Indian dairy products.

This is not a small achievement when we consider the fact that dairying in India is largely stringent that farmers in general keep dairy animals in proportion to their free crop and also are available for family labor with little or no purchased inputs and a minimum of marketed outputs. The existence of restrictive trade policy milk in the Dairy Industry and the emergence of Amul type cooperatives have changed the dairy farming practices in the country. In India milk production is dominated by small and marginal land-holding farmers and also by landless laborers. Crop production of the agricultural land still depends on rain, which is prone to both drought and floods, rendering agricultural income is very much uncertain for most of the farmers. Dairying, as a subsidiary source of income and occupation, is real relief to most of the farmers in the society. Usually one or two milk animals enable the farmers to generate sufficient income to break the vicious subsistence agricultural-debt cycle.

### DAIRY DEVELOPMENT IN INDIA

The dairy cooperative movement has been central to the development of dairying in India. The inspiration for this movement was the success of the Khaira (Kheda) District Cooperative Milk Producers' Union -- better known as Amul. Founded in 1946 in response to the exploitation of district's dairy farmers, Amul grew rapidly from its initial base of two societies and two hundred liters of milk. That growth, however, posed a challenge that threatened its existence: flush season production of milk exceeded the demand. Yet the cooperative's success depended on accepting the farmers' milk year round. At that time the advanced dairying nations conserved milk by conversion into powder and butter. This could either be sold as products, or combined with fluid milk to extend the supply during the lean season when demand outstripped production. Experts from the North pronounced buffalo milk as unsuitable for conversion into powder. It couldn't be done, they said. This provided the opportunity for the first major Indian scientific and technological breakthrough.

### OBJECTIVES OF THE STUDY

The objective of the research work is to do comparative study of the co-operative milk producers' unions which are lying in the north Gujarat region as far as their Profitability, Liquidity, Efficiency/Activity is concerned.

### RESEARCH METHODOLOGY

To undertake the study researchers have collected secondary data from the annual report during the period from 2006 to 2011 of selected dairies of the north Gujarat region. Moreover other required information were collected through referring Financial literatures, published articles, related websites, magazines, journals etc.

In this study work following dairies have been as sample of study.

1. The Mehsana District Co-operative milk producers' Union Ltd, (**Dudh Sagar dairy**) Mehsana.
2. The Sabarkantha District Co-operative milk producers' Union Ltd, (**Sabar dairy**) Himatnagar.
3. The Banaskantha District Co-operative milk producers' Union Ltd, (**Banas dairy**) Palanpur.

According to the objectives researcher has applied the necessary statistical tools like, average mean, percentage, ratio and graphic presentation of data, ANOVA test.

**ANALYSIS**

**• GROSS PROFIT RATIO**

A Gross Profit ratio is the indicator of the performance of the organization. A high ratio of gross profit is a sign of good management as it implies that the cost of production of the firm is relatively low and low Gross Profit Ratio shows the organization health is not good. It requires more concentration on the organization condition.

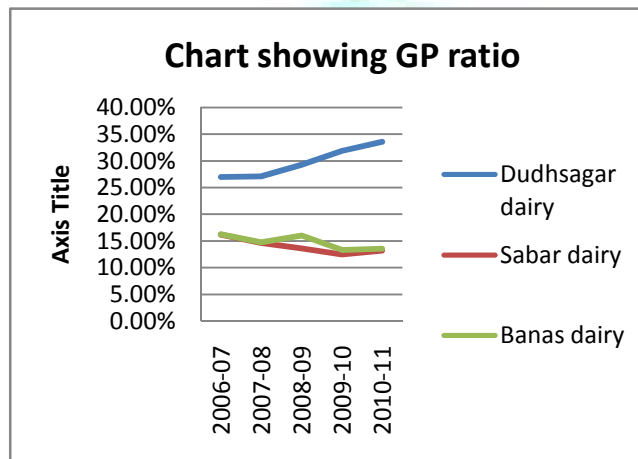
Table-1 shows the Gross Profit of the selected three dairies from 2006 to 2012.

**TABLE 1: GROSS PROFIT RATIO**

Name of dairy	2006-07	2007-08	2008-09	2009-10	2010-11	Average
Dudhsagar dairy	26.95%	27.05%	29.24%	31.79%	33.55%	29.72%
Sabar dairy	16.18%	14.64%	13.61%	12.46%	13.20%	14.02%
Banas dairy	16.25%	14.73%	15.99%	13.31%	13.58%	14.77%

Source: Computed from published Annual report of the units

**GRAPH -1**



Above graph shows that the Gross Profit ratio of the Dudhsagar Dairy is more than the other two selected dairy. moreover it reflect that the GP ratio of the Dudhsagar dairy is consistently increasing while GP ratio line of the SABAR dairy and BANAS dairy is falling down year by year. The gross profit ratio of Dudhsagar dairy is increased because sales increased by higher rate as compare to purchase expenses.

**• NET PROFIT RATIO**

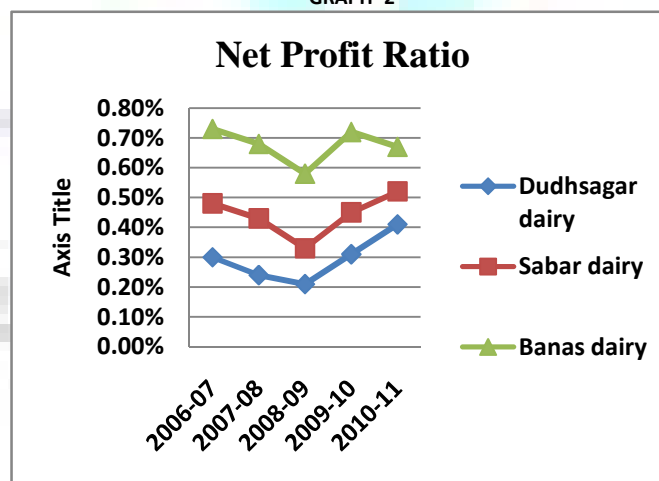
The Net Profit Margin is indicative of management’s ability to operate the business with sufficient success not only to recover from revenues of the period, the cost of merchandise or services, the expenses of operating the business (including depreciation) and the cost of the borrowed funds but also to leave a margins of reasonable compensation to the owners for providing their capital at risk. The ratio of the net profit (after interest and taxes) to sales essentially expresses the cost price effectiveness of the operations.

**TABLE 2: NET PROFIT RATIO**

Name of dairy	2006-07	2007-08	2008-09	2009-10	2010-11	Average
Dudhsagar dairy	0.30%	0.24%	0.21%	0.31%	0.41%	0.29%
Sabar dairy	0.48%	0.43%	0.33%	0.45%	0.52%	0.44%
Banas dairy	0.73%	0.68%	0.58%	0.72%	0.67%	0.68%

Source: Computed from published Annual report of the units

**GRAPH -2**



Above table-3 indicates that the net profit ratio for all successive years for the Banas Dairy is quite higher than the Net Profit Ratio of Sabar dairy and Duth sugar dairy which is completely inversely behaving to the Gross Profit ratio of the same dairy. It means Banas Dairy has adequate return to the owners to withstand adverse economic conditions However; a firm with a low profit margin can earn a high rate of return on investments if it has a higher inventory turnover.

**• RETURN ON TOTAL ASSETS RATIO**

The ROA measures the profitability of the total funds/ investments of a firm. It shows the efficiency of management of using the assets.



**TABLE 3: RETURN ON TOTAL ASSETS RATIO**

Name of dairy	2006-07	2007-08	2008-09	2009-10	2010-11	Average
Dudhsagar dairy	0.84%	0.85%	0.37%	0.44%	0.54%	0.58%
Sabar dairy	2.52%	1.99%	1.10%	1.13%	0.91%	1.42%
Banas dairy	2.54%	1.84%	1.37%	1.60%	1.30%	1.68%

Source: Computed from published Annual report of the units

From the above table-3, we can say that the Return on Total Assets Ratio of Banas Dairy is higher than the the Sabar dairy and Duth sagar Dairy. But among this the RTAR of Dudh sagar is very low. Hence we depicts that the overall management of the assets in the various field of dairy industry is good.

• **RETURN ON CAPITAL EMPLOYED RATIO**

Below table it shows the return on capital employed ratio of the three selected dairies through year 2006 to 2011.

**TABLE 4: RETURN ON CAPITAL EMPLOYED RATIO**

Name of dairy	2006-07	2007-08	2008-09	2009-10	2010-11	Mean
Dudhsagar dairy	5.38%	5.12%	2.72%	2.51%	3.72%	3.71%
Sabar dairy	8.07%	9.32%	12.40%	14.71%	3.97%	8.86%
Banas dairy	11.72%	5.96%	6.72%	6.73%	6.96%	7.39%

Source: Computed from published Annual report of the units

Here, average return on capital employed ratio of Sabar dairy is higher than the Dudh sagar and Banas Dairy. But return on capital ratio of Duth Sagor dairy is very low than the other two dairies. The return on capital employed ratio of Dudhsagar dairy is reduced because increased in capital employed by higher rate as compare to increase in EBIT. The capital employed of Dudhsagar dairy is increased because expansion of plant.

• **RETURN ON SHAREHOLDERS' FUND RATIO**

**TABLE 5: RETURN ON SHAREHOLDERS' FUND RATIO (RSFR)**

Name of dairy	2006-07	2007-08	2008-09	2009-10	2010-11	Mean
Dudhsagar dairy	7.68%	7.07%	0.90%	1.39%	2.04%	2.68%
Sabar dairy	6.67%	6.73%	6.38%	9.30%	11.13%	7.84%
Banas dairy	13.99%	11.95%	12.08%	15.23%	14.53%	13.49%

Source: Computed from published Annual report of the units

If we look at the above table, it depicts that continuously the Banas dairy have good return to their shareholders throughout the one decade than compared to the other two dairy. The Banas dairy PAT is increased by higher rate due to increased in sales by higher rate as compare to increase in total expenses. So, return on shareholders' fund is increased.

**ANOVA TEST**

Ho: There is no any significant difference in Net Profit Ratio (NPR), Return on Total Assets Ratio (RTAR), Return On Capital Employed Ratio (RCER) and Return On Shareholders' Fund Ratio (RSFR) of selected co-operative dairies.

**TABLE-6: ANOVA TEST**

RATIO	NPR	RTAR	RCER	RSFR
Sig. (Two Tailed)	.000	.010	.022	.000

In the above ANOVA table-6, the two tailed significant test value for Net Profit Ratio (NPR) and Return on Shareholders' Fund Ratio (RSFR) of selected co-operative dairies is 0.000. Hence, we may say that NPR and RSFR is significantly different between the selected dairies. While the return on shareholders' fund ratio and Return On Capital Employed Ratio (RCER) is not significantly different.

**ANALYSIS OF ACTIVITY AND EFFICIENCY**

**TABLE – 7: AVERAGE RATIO**

Name of dairy	ITR	TATR	FATR	CATR	NWCTR
Dudhsagar dairy	8.86 Times	1.98 Times	6.55 Times	3.07 Times	5.15 Times
Sabar dairy	16.62 Times	3.26 Times	33.06 Times	3.69 Times	15.91 Times
Banas dairy	12.42 Times	2.49 Times	16.75 Times	2.99 Times	5.62 Times

**1. Inventory (or Stock) Turnover Ratio: (ITR)**

Inventory Turnover ratio of Sabar dairy is (16.62 times) higher than the other two dairy which shows that the inventory management of Sabar dairy is quite more efficient than the other two dairies because less average stock. Here, Dudhsagar Dairy ITR is very low (8.86times) which implies result of inferior quality goods, overvaluation of closing inventory, stock of obsolete goods and deliberate excessive purchases in anticipation of future increase in their prices and so on. Thus, a firm should have neither too high nor too low inventory turnover.

**2. Total Assets Turnover Ratio (TATR)**

Total turnover ratio measures the efficiency of a firm in managing and utilizing its assets. The higher the turnover ratio, the more efficient is the management and utilization of the assets while low turnover ratios are indicative of underutilization of available resources and presence of idle capacity. In operational terms, it implies that the firm can expand its activity level (in terms production and sales) without requiring additional capital investments.

**3. Fixed assets turnover ratio**

To ascertain the efficiency and profitability of business, the total assets are compared to sales. The more the sales in relation to the amount invested in fixed assets, the more efficient is the use of fixed assets. It indicates higher efficiency. If the sales are less as compared to investment in fixed assets, it means that the fixed assets are not adequately utilized by business.

If this ratio is low, it indicates that investments in fixed assets is more than what is necessary and must be reduced. If this ratio is found to be higher, it means the fixed assets are being used effectively to earn profits in the business. It must however be remembered that the fixed assets shown in the denominator is their written down value and hence this ratio for a company using old machinery will have low value in denominator and therefore, its ratio will be high. While the written down value of a company with new machinery will be high and its ratio will, therefore, be low. This fact must be kept in mind while interpreting this ratio.

**4. Current Assets Turnover Ratio(CATR)**

This ratio is determined to know how efficiently the current assets are used by business. Whether this ratio is satisfactory or not can be said only by comparing it with that of other firms in the same business. If the ratio is low, it indicates that current assets are not efficiently used by business and if the ratio is high, it indicates that current assets are efficiently used by business.

**5. Net Working Capital Turnover Ratio (NWCTR):**

Net working capital means excess of current assets over current liabilities. Net working capital shows liquidity of enterprise. More the liquidity better is the capacity to repay current liabilities resulting into less risk. Thus, a higher net working capital turnover ratio shows better position.

HO6: There is no any significant difference in ITR, TATR, of selected co-operative dairies.

TABLE – 8: ANOVA TEST

Ratio	ITR	TATR	FATR	CATR	WCATR
sig. value	.009	0.155	0.000	0.47	0.033

**ANALYSIS OF LIQUIDITY****INTRODUCTION**

Liquidity of business is one the key factors determining its propensity to succeed or fail. Both excess and shortage of liquidity affect the interest of the enterprise and on the profitability. If the enterprise is earning very low rate of return or incurring losses, there would be no funds generated by the operation of the enterprise which are essential to retire the debts. In fact there is a tangle between liquidity and profitability, which eventually determines the optimum level of investment in current assets. If the enterprise loses its face in the market wants or liquidity, it requires Herculean efforts to restore its position. Instances are not lacking of great industrial giants, with comfortable books profits coming to grief for want of liquidity.

TABLE-9

Name of dairy	Mean		
	CR	LR	ATR
Dudhsagar dairy	2.65:1	1.75:1	0.97:1
Sabar dairy	1.53:1	1.41:1	0.70:1
Banas dairy	2.44:1	1.8:1	1.24:1

**CURRENT RATIO (CR)**

This most widely used ratio shows the proportion of current assets to current liabilities. It is also known as 'Working Capital Ratio' as it is a measure of working capital available at a particular time. The ratio is obtained by dividing current assets by the current liabilities. It is measure of short-term financial strength of the business and shows whether the business will be able to meet its current liabilities, as and when they mature. Liability which will mature within a period of 12 months is a current liability. They include creditors, bills payable, bank overdraft, outstanding expenses, provision for taxation etc. Similarly, current assets are in the form of cash or can be readily converted into cash within a short time. They include cash, bank balance, stock, debtors, bills receivables, prepaid expenses, accrued income, readily marketable securities etc.

**LIQUID RATIO (LR)**

A variant of current ratio is the liquid ratio or quick ratio which is designed to show the amount of cash available to meet immediate payments. It is obtained by dividing the liquid assets by liquid liabilities.

Liquid assets are obtained by deducting stock-in trade from current assets. Stock is not treated as a liquid asset because it cannot be readily converted into cash as and when required, the current ratio of a business does not reflect the true liquid position, if its current assets consist largely of stock-in-trade.

The liquid liabilities are obtained by deducting bank overdraft from current liabilities. Bank overdraft is not included in liquid liabilities because bank overdraft is not likely to be called on demand and is treated as a sort of permanent mode of financing. Hence, it is not treated as a quick liability.

**ACID TEST RATIO (ATR)**

The measure of absolute liquidity may be obtained by comparing only cash and bank balance as well readily marketable securities with liquid liabilities. This is very exacting standard of liquidity value and it is satisfactory if the ratio is 0.5:1. It is computed by dividing the value of quick assets by liquid liabilities. Here, quick assets do not include both stock and debtors, because payments from debtors would not generally be received immediately when liquid liabilities are to be paid. Thus the quick assets comprise only cash balance, bank balance and readily marketable securities only.

**H0: There is no any significant difference in CR, LR and ATR of selected co-operative dairies.**

TABLE- 10: ANOVA TEST

Ratio	CR	LR	ATR
sig. value	.396	.965	.986

**5.2 SUGGESTIONS**

1. The average processing expenses of Dudhsagar dairy is highest; it is higher than average processing expenses. Dudhsagar dairy has to reduce in processing expenses by decreasing in depreciation expenses and transportation expenses.
2. The average marketing expense of Sabar dairy is highest; it is higher than average marketing expenses. Sabar dairy has to reduce in marketing expenses by decreasing in packaging expenses.
3. The average office expense of Banas is highest; it is higher than average office expenses. Banas dairy has to reduce in office expenses by decreasing in co-operative development expenses.
4. The Gross profit of Sabar dairy is lowest. Sabar dairy has to increase in gross profit by increasing in production of different product with better quality and by decreasing in purchase expenses.
5. The net profit ratio of Dudhsagar dairy is lowest. Dudhsagar dairy has to increase net profit by decreasing in processing expenses, marketing expenses and financial expenses.
6. The return on total assets of Dudhsagar dairy is lowest, so for increasing it to increase in sales and increase in utilization of fixed assets.
7. The return on capital employed of Dudhsagar dairy is lowest, so for increasing it increase in sales. The return on shareholders' fund of Dudhsagar dairy is lowest, so for increasing it increase in sales.

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