



## An Analytical Financial Study of Selected Milk Producer Co-Operative Society in Anand District

### KEYWORDS

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#### Objectives:

Followings are the objectives of the research study.

1. To study the workings of selected milk co-operative societies in Anand Dist.
2. To study the significance of contribution of selected milk co-operative societies in Anand Dist.
3. To study Profitability, Productivities and Workability of selected milk co-operative societies in Anand Dist.
4. To study incomes, expenditures, assets, debts of selected milk co-operative societies in Anand Dist.
5. To study financial performance of selected milk co-operative societies in Anand Dist.

#### SAMPLE DESIGN

The researcher has taken 8 Milk Producer Co-Op Societies conveniently from Anand District in Gujarat. i.e.,

Borsad Milk Producer Co-operative Society  
Rangpur Milk Producer Co-operative Society  
Mahelav Milk Producer Co-operative Society  
Roonaj Milk Producer Co-operative Society  
Anklaav Milk Producer Co-operative Society  
Moraj Milk Producer Co-operative Society  
Umreth Milk Producer Co-operative Society  
Rasnol Milk Producer Co-operative Society

#### SUMMARY OF RESEARCH WORK:

##### GROSS PROFIT RATIO

Year Co-Op	2008-09	2009-10	2010-11
Borsad	5.08 %	5.012 %	4.31 %
Rangpur	5.84 %	5.75 %	4.64 %
Mahelav	4.53 %	4.99 %	1.88 %
Roonaj	9.40 %	7.92 %	7.059 %
Anklav	7.96 %	8.025 %	9.044 %
Moraj	4.29 %	4.49%	3.83%
Umreth	2.41%	3.82%	3.17%
Rasnol	4.02%	2.87%	2.67%

#### Analysis :

1. Looking at the gross – profit ratios of Borsad Milk Co-Op Society, it seems to increase in gross profit from 2008-2009 to 2009-2010 by 0.040% but the same decreases by 0.70% in 2010-11.
2. Looking at the gross profit ratios of Rangpur Milk Co-Op Society, it seems to decrease constantly profit figures from the last three years.

G.P of 2009-10 has been decreased by 0.09% to that of 2008-09 and it also get reduced by 1.11% in 2010-11.

3. Looking at the gross profit ratios of Mahelav Milk Co-Op Society, it seems to increase by 0.46% in 2009-10 to that of 2008-09 but in 2010-11, it is reduced by 3.4% that is not bearable literally.
4. Looking at the gross profit ratios of Roonaj Milk Co-Op Society, we can say that the gross profit figures of the same are reducing year-by-year. It is decreased by 1.48% in 2009-10 and by 0.86% in the next year i.e. 2010-11.
5. Anklav Milk Co-Op Society is doing well business on gross profit figures of the society are increasing year-by-year. As it is increased by 0.065% to that of 2008-09, And it is also increased by 1.019% in 2010-11.
6. From the profit figures of Moraj Milk Co-Op Society, we can say that it is increased by 0.20% in 2009-10 to that of 2008-09, and the same is decreased by 0.66% in 2010-11.
7. From the profit figures of Umreth Milk Co-Op Society, it is seen that gross profit of the society has increased by 1.41% but it is also decreased by 0.65% in 2010-11.
8. It is seen that the gross profit figures of Rasnol Milk Co-Op Society are decreasing constantly year-by-year, As it is decreased by 1.15% in 2009-10 and by 0.20% in 2010-11 respectively.

##### NET PROFIT RATIO

Year Co-Op	2008-09	2009-10	2010-11
Borsad	0.31 %	0.26 %	0.23 %
Rangpur	2.21 %	2.44 %	1.06 %
Mahelav	1.79 %	3.22 %	0.44 %
Roonaj	5.90 %	5.40 %	5.43 %
Anklav	0.37 %	0.56 %	0.58 %
Moraj	1.89 %	2.02 %	1.37 %
Umreth	0.997 %	2.93 %	1.03 %
Rasnol	2.79 %	2.09 %	1.57 %

#### Analysis :

1. As we can see the profit figures of Borsad Milk

Co-Op Ltd. reduce year-by-year. It was 0.31% in 2008-09 and it is 0.23% means 0.08% decrease in Net Profit.

- Rangpur Milk Co-Op Ltd. is doing good business but from 2009-10 to 2011-11. There is a sudden decrease in profit by 1.38 % , that is abnormal change in profit figure.
- Mahelav Milk Co-Op Ltd. is increasing their profit margin in 2009-10 by 1.43% to that of 2008-09. But there is a huge level of decrease in profit by 2.78% in 2010-11.
- Roonaj Milk Co-Op Ltd. is another milk union getting a higher level of net profit i.e., 5.90% but it reduced by 0.50% in 2009-10. However, the same increased by 0.03% in 2010-11.
- Anklav Milk Co-Op Ltd. is looking forward to increase in Net profit year-by-year. As it was 0.37% in 2008-09 and by increase of 0.19%, it was 0.56% in 2009-10. It was 0.58% in 2010-11.
- Moraj Milk Co-Op Ltd. has on increase of 0.13% in 2009-10 to that of 2008-09. But it was 1.37% getting reduced by 0.65% in 2010-11.
- Looking at the profit figures of Umreth Milk Co-Op Ltd., we can see that there is an increase of 1.93% approx. in net profit in 2009-10 to that of 2008-09. But it reduced by 1.90% in 2010-11.
- Rasnol Milk Co-Op Ltd. is getting their profit figures reduced year-by-year. As it was 2.79% and was 1.57% in 2010-11. 1.22% decrease is seen between two years.

#### RETURN ON CAPITAL EMPLOYED

Year Co-Op	2008-09	2009-10	2010-11
Borsad	38.76 %	37.55 %	34.39 %
Rangpur	32.36 %	41.88 %	22.44 %
Mahelav	67.30 %	125.63 %	16.66 %
Roonaj	52.60 %	51.48 %	59.23 %
Anklav	13.61 %	19.56 %	20.66 %
Moraj	52.62 %	54.13 %	34.66 %
Umreth	23.80 %	77.93 %	27.14 %
Rasnol	96.62 %	68.98 %	52.71 %

#### Analysis :

- Borsad Milk Co-Op Ltd. is getting reduced their return on capital employed by every year. It was 38.76% and after a reduction of 4.37% , it is 34.39% in 2010-11.
- Rangpur Milk Co-Op Ltd. has a mix trend in Return On Capital Employed. As it was 32.36% in 2008-09 and it increased by 9.52% in 2009-10 and was 41.88% but suddenly there is a fall in the same and was 22.44% in 2010-11.
- Mahelav Milk Co-Op Ltd. is doing a better business as there is a higher rate of return i.e.,

125.63% in 2009-10 by increase of 58.33% that is unpredictable. But in just next year in 2010-11 it was 16.66% only and reduced by 108.97% that is unbearable.

- Roonaj Milk Co-Op Ltd. is doing a good business as they are getting a constant return on investment averagely. It was 59.23% in 2010-11 increasing by 7.75% to that of 2009-10.
- Anklaav Milk Co-Op Ltd. has an increasing trend in Return On Capital Employed. As it was 13.61% in 2008-09 and was 20.66% in 2010-11, 7.05% of increase is seen.
- Moraj Milk Co-Op Ltd. is doing good business as it was 54.13% return on Capital Employed in 2009-10. But suddenly it was fallen to 34.66%.
- Umreth Milk Co-Op Ltd. is going with a mixed trend in return. As it was 23.80% in 2008-09 and was 77.93% but it decreased in 2010-11 and was 27.14%.
- Rasnol Milk Co-Op Ltd. is going with a decline trend in return on capital-employed. As it was 96.62% in 2008-09, 68.98% in 2009-10 and 52.71% in 2010-11, Rasnol bears a decline of 43.91% within two years.

#### EXPENSE RATIO

Year Co-Op	2008-09	2009-10	2010-11
Borsad	5.55 %	5.47 %	4.89 %
Rangpur	6.02 %	4.22 %	4.55 %
Mahelav	4.41 %	3.82 %	3.10 %
Roonaj	5.94 %	4.61 %	4.66 %
Anklav	9.39 %	10.72 %	10.74 %
Moraj	3.61 %	3.84 %	3.81 %
Umreth	3.50 %	4.52 %	3.39 %
Rasnol	3.48 %	3.37 %	3.14 %

#### Analysis :

- Borsad Milk Co-Op Ltd. is moving towards good position because expenses are reducing gradually as it was 5.55% in 2008-09 and was 4.89% in 2010-11 means decrease of 0.66%.
- Rangpur Milk Co-Op Ltd. is also moving towards reducing cost as it was 6.02% where it was 4.22% in 2009-10. But it reversed and increased by 0.33% in 2010-11.
- Mahelav Milk Co-Op Ltd. is doing good business because cost ratio is falling year-by-year as it was 4.41%.
- Roonaj Milk Co-Op Ltd. suffer a mixed trend in expense ratio as it was 5.94% and by fall of 1.33%, it was 4.61% in 2009-10 looks good position but suddenly it increased in 2010-11 by 0.05%.
- Anklaav Milk Co-Op Ltd. focus on their cost ratio and is an increase trend constantly. It was 9.39% in 2008-09 and was 10.74% in 2010-11

means an increase of 1.35%.

- Moraj Milk Co-Op Ltd. has a good position as compare to other milk unions. But however there is a mixed trend in cost ratio. It was 3.61% in 2008-09 whereas it was 3.81% in 2010-11 means surplus of 0.20%.
- Umreth Milk Co-Op Ltd. is also suffering a mixed in cost ratio as it was 3.50% in 2008-09 and by a surplus of 1.02%, it was 4.52% in 2009-10. But a slide fall of 1.13% in total cost, it was 3.39% in 2010-11 against total sales.
- Rasnol Milk Co-Op Ltd. is moving towards a better situation because cost ratio is gradually falling down. It was 3.48% in 2008-09 and by reduction of 0.34% it was 3.14% in 2010-11.

#### PROPRIETARY RATIO

Year Co-Op	2008-09	2009-10	2010-11
Borsad	2.36%	1.83%	22.71%
Rangpur	15.24%	16.23%	10.23%
Mahelav	8.42%	9.04%	9.97%
Roonaj	23.78%	23.10%	22.13%
Anklav	4.48%	4.38%	4.42%
Moraj	6.25%	7.84%	8.99%
Umreth	15.83%	12.79%	13.68%
Rasnol	13.59%	13.29%	13.92%

#### Analysis :

- Owner's Fund of Borsad Milk Producer Co-Op Ltd. is reducing by 0.53% in 2009-10 to that of 2008-09 whereas it grows up by 20.88% in 2010-11 that shows an unseen increasing in owner's fund.
- Rangpur Milk Producer Co-Op Ltd. is going with mix trend in Proprietary Ratio. We have seen increasing trend by 0.99% in 2009-10 to 2008-09. On another hand we have seen decreasing trend by 6.00% in 2010-11 to 2009-10.
- Mahelav Milk Producer Co-Op Ltd. is doing well business as proprietary ratio is constantly going upward. It was 8.42% in 2008-09 and by increasing it was 9.04% in 2009-10. The trend regard the ratio remains the same to the next year as it was 9.97%.
- Roonaj Milk Producer Co-Op Ltd. is the best in proprietary ratio. However, the ratio is constantly declining year-to-year. 1.65% is visible reduction in proprietary ratio in two years..
- Anklav Milk Producer Co-Op Ltd. is going with mix trend in proprietary ratio. We have seen decreasing trend by 0.10% in 2009-10 to 2008-09. On another hand we have seen increasing trend by 0.04% in 2010-11 to 2009-10.
- Moraj Milk Producer Co-Op Ltd. is going with a constant increasing trend as there is 2.74% growth in owner's fund in two years.

- Umreth Milk Producer Co-Op Ltd. is going with mix trend in proprietary ratio. We have seen decreasing trend by 3.04% in 2009-10. On another hand we have seen increasing trend by 0.89% in 2010-11 to 2009-10.
- Rasnol Milk Producer Co-Op Ltd. is going with mix trend in proprietary ratio. We have seen decreasing trend by 0.30% in 2009-10 to 2008-09. On another hand we have seen increasing trend by 0.63% in 2010-11 to 2009-10.

#### MILK TURNOVER ( In Percentage )

Year Co-Op	2008-09	2009-10	2010-11
Borsad	24.45%	16.55%	16.19%
Rangpur	50.87%	26.82%	29.00%
Mahelav	32.35%	21.55%	27.63%
Roonaj	3.65%	21.34%	29.00%
Anklav	18.66%	1.40%	5.53%
Moraj	23.28%	3.95%	1.84%
Umreth	24.31%	18.09%	17.83%
Rasnol	28.40%	18.45%	18.89%

#### Analysis :

- Milk Production of Borsad Milk Producer Co-Op Ltd. is constantly declining for the last three years as it was 24.45% fall in 2008-09 and it continues to the following years by 7.9% and 0.36% respectively.
- Milk Production of Rangpur Milk Producer Co-Op Ltd. is gradually falling for the last three years but there was a higher declining rate of milk production and sales in 2009-10 i.e., 24.05%. In 2010-11 the reduction gap in turnover has reduced to 2.18%.
- Milk Production of Mahelav Milk Producer Co-Op Ltd. is in the trend of fluctuation as in 2009-10 the fall in sales was 10.8% and in the next year by good practice of the said Co-Operative Ltd. it increased by 6.08%.
- Milk Production of Roonaj Milk Producer Co-Op Ltd. is doing well business constantly because the figures of Milk selling has been increasing for the last three years. There was surplus of 17.69% in 2009-10 to that of 2008-09.
- Milk Production of Anklav Milk Producer Co-Op Ltd. is in the trend of fluctuation as in 2009-10 the fall in sales was 17.26% and in the next year by good practice of the said Co-Operative Ltd. it increased by 4.13%.
- Milk Production of Moraj Milk Producer Co-Op Ltd. is gradually falling for the last three years but there was a higher declining rate of milk production and sales in 2009-10 i.e., 19.33%. In 2010-11 the reduction gap in turnover has reduced to 2.11%.
- Milk Production of Umreth Milk Producer Co-Op Ltd. is gradually falling for the last three years but there was a higher declining rate of milk

production and sales in 2009-10 i.e., 6.22%. In 2010-11 the decline gap in sales has reduced to 0.26%.

8. Milk Production of Rasnol Milk Producer Co-Op Ltd. is in the trend of fluctuation as in 2009-10 the fall in sales was 9.95% and in the next year by good practice of the said Co-Operative Ltd. it increased by 0.44%. A betterment of doing business has been seen.

#### ANOVA TEST FOR HYPOTHESES TESTING

One-way (or single factor) ANOVA: Under the one-way ANOVA, we consider only one factor and then observe that the reason for said factor to be important is that several possible types of samples can occur within that factor. We then determine if there are differences within that factor.

#### AVERAGE FINANCIAL PERFORMANCE OF SELECTED MILK PRODUCER CO-OP. SOCIETIES IN ANAND DISTRICT

Ratios	Borsad	Rangpur	Mahelav	Roonaj	Anklav	Moraj	Umreth	Rasnol
Gross Profit Ratio	4.80	5.41	3.80	8.12	8.34	4.20	3.13	3.18
Net Profit Ratio	0.27	1.90	1.81	5.57	0.50	1.76	1.65	2.15
Return on Capital Employed	36.9	32.22	69.86	54.43	17.94	47.13	42.95	72.77
Expense Ratio	5.30	4.93	3.77	5.07	10.28	3.75	3.80	3.33
Prop. Ratio	8.97	13.9	9.14	23.00	4.42	23.08	14.1	13.6

Summary:				
Group	Count	Sum	Average	Variance
Borsad	5	56.23733	11.24747	215.1816
Rangpur	5	58.37	11.674	151.8881
Mahelav	5	88.4	17.68	858.3943
Roonaj	5	96.213	19.2426	440.9893
Anklav	5	41.49966	8.299932	43.18
Moraj	5	79.93334	15.98667	377.8844
Umreth	5	65.64567	13.12913	302.307
Rasnol	5	95.03667	19.00733	924.9764

#### ANOVA:

Source of Variance	S S	Df	MS	F	P-Value	F crit
Between Groups	570.0367	7	81.43381	0.196534	0.984005	2.312741
Within Groups	13259.2	32	414.3501			
Total	13829.24	39				

#### INFERENCE:

Above Table shows the ANOVA of Selected Milk Producer Union Ltd. In Anand Dist.. It is found that f-value of the

ANOVA is 0.196534 and P-value is 0.984005.

As P-value is more than 0.05, we accept the null hypothesis and reject the alternate hypothesis. It means that there is no significant difference in average profitability of selected Milk Producer Union Ltd. In Anand Dist.

#### LEVEL OF SIGNIFICANCE

The level of significance is as usual i.e., 0.05 (5%) for the testing the hypothesis.

#### SIGNIFICANCE OF THE STUDY:

1. Helps Government to improve co-operative sector level
2. Assist to explore research work on the same phenomenon
3. To assess the potential of Milk co-operatives in contribution of national development
4. Milk Production increase and quality excellence
5. Betterment of financial management and accountability
6. For better reward/compensations and bonus to milk canning men
7. Awareness in all village level milk co-operatives for right accounts and financial control.
8. To scale a quality based improvement line for them

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