

# A COMPARATIVE STUDY ON PROFITABILITY AND LIQUIDITY OF RAJKOT UNION & BHARUCH UNION

**Mitalben Kantigiri Gauswami, Dr.V.J. Dwivedi**

Assistant Professor, Shree R.P. Arts, K.B. Commerce, & Smt. B.C.J. Science College, Khambhat,  
S.P. University, V.V. Nagar, Gujarat, India.  
mitalkgauswami810@gmail.com

Principal, Shree R.P. Arts, K.B. Commerce, & Smt. B.C.J. Science College, Khambhat,  
S.P. University, V.V. Nagar, Gujarat, India.

## Abstract

Animal husbandry is a tradition in India. now a day's dairy industry has become an economic support system for people working in the area of animal husbandry. From the ancient era to the recent milk is universally accepted as a balanced diet for the human being. In recent times with the changing environment the process of milk production, collection & sales also have been changed. Due to changes in such a process cooperative milk production units came into existence. In short, a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social & cultural needs and aspiration thoroughly in a jointly-owned and democratically-controlled enterprise. At present time the role of the dairy industry is not limited to money only it also maintains the health of people. The object of this study is to compare and analyze the financial performance of Bharuch union and Rajkot union. In this study, a researcher will conduct research work based on financial performance indicators like Profitability Ratios, Liquidity Ratios, and earning the position of the firm. For the study researcher collected secondary data from Bharuch union and Rajkot union from the years 2015-2016 to 2019-2020. Dairy cooperative units earn the least profit because the dairy cooperative is a safeguard for milk producers and consumers. Both unions' liquidity position is poor.

**Keywords:** Cooperative, Profitability, Liquidity, Financial performance

## INTRODUCTION

A cooperative is a private commercial entity owned and controlled by people who used its products and services. Cooperatives are formed by individuals who coordinate with each other. cooperation has three dimensions economic, social, and moral.

### **Rajkot District Cooperative Milk Producers Union Limited:**

There are many cooperative milk producer's unions but Rajkot district cooperative milk producer's union Ltd is one of the milk producers' unions, which is suitable in Saurashtra district. It was established in 1996 by the animal husbandry department of the Gujrat states under a pilot project of UNICEF a sister concern of the UNO "socio-economic development" is the main objective of Rajkot district cooperative milk producer's union ltd. It operates one milk union and six milk chilling plants. Gopal is the brand name of Rajkot union and all the products of Rajkot union are sold with the same brand name.

### **Bharuch District Cooperative Milk Producers Union Limited:**

Bharuch District cooperative milk producers' union ltd is known as Dudhdhara Dairy. Bharuch milk union was established on 18 December 1959. It is the farmers' organization engaged in the business of procuring milk from the village and processing and selling the quality milk product to consumers on a cooperative basis.

Bharuch milk union started milk procurement rural cooperative and 192 members; at present, it has 600 rural cooperatives & more than 59200 milk producer members. It produces milk, buttermilk, ghee, flavor milk & paneer. Bharuch milk union operates one pilot plant.

## REVIEW OF LITERATURE

Desai. Harish. P (2006) has done his Ph.D. on "Financial Performance Appraisal of Selected District Dairies Cooperative in Gujarat" in May 2006. Under this research, he has made a humble attempt in surveying the monetary strength of the chosen cooperative dairy units by applying accounting tools and procedures of the date of nine district cooperative dairy associations in Gujarat State. For this reason, he has utilized many accounting devices and strategies like common size statements, Ratio analysis, and so on. He has additionally utilized some statistical statements like, Mean, Regression, F-test, and T-test. (Desai, 2006)

Kaur. Manvir (2011) author has studied in her paper the operational performance of MILKFED and HDDCF. The researcher has considered the operational performance of MILKFED (The Punjab State cooperative milk producers federation Limited) and HDDCF (Haryana Dairy Development Cooperative Federation Ltd) based on different indicators utilizing 5 years financial data. It has been seen that the MILKFED and HDDCF have set up their milk booths in urban and semi-urban regions yet they have no milk booths in the rural areas. It was discovered that societies of HDDCF were decreased in the year 2009-10. The proportion of interest income to the total income of HDDCF was discovered higher as compared with MILKFED yet MILKFED was earning more from different sources when compared with HDDCF. It has been discovered that the HDDCF spent a bigger extent of absolute costs on its representatives as compared to MILKFED however MILKFED had used its assets more effectively than HDDCF. HDDCF earned a high rate of profit for its investments as compared to MILKFED. The author examined that the financial performance of HDDCF was superior to MILKFED. (Kaur, 2011)

Rathod. Manisha. B (2015) has done her Ph.D. on “An Analysis of Financial Performance of Cooperative Dairy Industry in Gujarat”. Under this study, she covers the period of ten years from 2003-04 to 2012-13. The study is based on secondary data published by Cooperative dairy in their annual reports and accounts. The main objective of the study is to measure the financial performance of concerned dairy and find out the various factors which affect the financial performance. Further to compare the performance of all the unit’s researcher has used F-test (ANOVA) and a test for the hypothesis study. (Rathod, 2015)

Shah Nilesh (2015) studied “Profitability Analysis of District Cooperative Dairy Units in Gujrat”. This research work is the study of the profitability analysis of district cooperative milk producers’ union limited. In this study, the researcher finds out the profit of the study period and compares it with other years, and evaluate the factors that affect the profit during the study period for comparison of the probability of all the union he has used Mean, Ratios, and ANOVA. (Shah, 2015)

## RESEARCH METHODOLOGY

### 3.1 INTRODUCTION:

Research is defined as careful consideration of study regarding a particular concern or problem using scientific method. According to the American sociologist Earl Robert Babbie, research is a systemic inquiry to describe, explain, predict and control the observed Phenomenon. This study is based on secondary data.

### 3.2 RESEARCH STATEMENT:

The research statement examined is termed “A Comparative study on Profitability and Liquidity of Rajkot Union & Bharuch Union.”

### 3.3 RESEARCH DESIGN:

#### 3.3.1 OBJECTIVE OF THE STUDY:

- 1) To compare profitability of Rajkot union and Bharuch union.
- 2) To compare liquidity of Rajkot union and Bharuch union.

#### 3.3.2 SAMPLE SELECTION:

In Gujrat there are 18 Milk Producers Unions. For this research a convenient sampling method has been adopted and two milk producers’ unions have been selected.

#### SELECTED MILK PRODUSERS UNIONS IN GUJRAT

SR NO	NAME OF THE MILK PRODUSERS UNION	DATE OF REGISTRATION
1	The RAJKOT District Cooperative Milk Producers’ Union Ltd. (GOPAL dairy) RAJKOT	05/09/1961
2	BHARUCH District Cooperative Milk Producers’ Union Ltd. (DUDHDHARA dairy) BHARUCH	18/12/1960

#### 3.3.3 DATA COLLECTION:

The present study is based on secondary data. secondary data means data gathered and recorded by someone else prior to and for a purpose other than the current project. The data is collected from the annual reports of selected milk producers’ unions in Gujrat and published article through related websites, browsers and portals.

#### 3.3.4 HYPOTHESIS:

- 1) H<sub>0</sub>: There is no significant difference in the Net Profit Ratio of selected dairy units.
- 2) H<sub>0</sub>: There is no significant difference in the Return on Equity Ratio of selected dairy units.
- 3) H<sub>0</sub>: There is no significant difference in the Current Ratio of selected dairy units.
- 4) H<sub>0</sub>: There is no significant difference in the Liquid Ratio of selected dairy units.

#### 3.3.5 TOOLS AND TECHNIQUES:

The present study is mainly intended to compare the profitability and liquidity of Rajkot union and Bharuch union. The period of the study is 2015-2016 to 2019-20. For the data analysis Ratios and t test have been used.

#### 3.3.6 SCOPE OF THE STUDY:

Present study has been undertaken by selecting two dairy cooperative units, researcher can increase the number of dairy cooperative units. The researcher has analysed five years data from 2015-16 to 2019-20 further it can be increase.

### 3.3.7 LIMITATION OF THE STUDY:

- 1) Research study based on analysis of only five years data.
- 2) Only two milk producers' unions are analysed in this research study.
- 3) Measurement of profitability and liquidity is full of practical difficulties.

## DATA ANALYSIS

### A) Profitability Ratios:

**(1) Net Profit Ratio:** Net Profit Ratio is one of the most important indicators of company's overall financial health. The Net Profit Ratio measures the efficiency of a firm. High Net Profit Ratio show more efficiency of firm at converting its revenue in actual profit.

**TABLE-1**

NET PROFIT RATIO = NET PROFIT / SALES X100 (%)		
YEAR	RAJKOT UNION	BHARUCH UNION
2015-16	1.105	0.197
2016-17	0.559	0.431
2017-18	0.792	0.245
2018-19	0.775	0.278
2019-20	0.711	0.138
AVERAGE	0.788	0.257

The above table shows the Net Profit Ratio of Rajkot union and Bharuch union. In Rajkot union Net Profit Ratio was 1.105% in the year 2015-16. It was reduced to 0.711% in 2019-20. Average Net Profit Ratio in Rajkot union was 0.788%. In Bharuch union Net Profit Ratio was 0.197% in the year 2015-16. It was reduced to 0.138% in 2019-20. Average Net Profit Ratio in Bharuch union was 0.257% it indicated that Net Profit decreased during the years. It is not good sign for the unions. Rajkot union earn more profit compare to Bharuch union.

**TABLE-2**

t-Test: Two-Sample Assuming Equal Variances		
	RAJKOT	BHARUCH
Mean	0.788409731	0.257829261
Variance	0.039752254	0.012161053
Observations	5	5
Pooled Variance	0.025956653	
Hypothesized Mean Difference	0	
Df	8	
t Stat	5.207111955	
P(T<=t) one-tail	0.000407647	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	0.000815295	
t Critical two-tail	2.306004135	

Table No.2 shows that p value is less than 0.05 so that null hypothesis is rejected. Hence alternate hypothesis is accepted. It is concluded that there is a significant difference in Net Profit Ratio of Rajkot Union and Bharuch Union.

**(2) Return on Equity Ratio (ROE):** The Return on Equity Ratio measures the profitability of a company in relation to the equity. Return on Equity Ratio signifies how good the company is in generating returns on the investment of shareholders.

**TABLE-3**

RETURN ON EQUITY = PAT / SHAREHOLDERS EQUITY		
YEAR	RAJKOT UNION	BHARUCH UNION
2015-16	22.364	1.17
2016-17	8.952	2.088
2017-18	11.252	2.23
2018-19	10.354	3.062
2019-20	11.046	1.723
AVERAGE	12.7936	2.0546

The above table shows the Return on Equity Ratio of Rajkot union and Bharuch union. It shows that in Rajkot union Return on Equity Ratio decreased to 11.046 in 2019-2020 from 22.364 in 2015-16. Average Return on Equity Ratio in Rajkot union was 12.793 it shows decreasing trend. In Bharuch union Return on Equity Ratio increased to 1.723 in 2019-20 from 1.170 in 2015-2016. Average Return on Equity Ratio in Bharuch union was 2.054. it shows increasing trend. Return on Equity Ratio indicates whether the firm earned a satisfactory return for its shareholders or not. Higher the ratio that firm generating sufficient returns for the shareholders. Rajkot union generate more returns compared to Bharuch union.

**TABLE-4**

t-Test: Two-Sample Assuming Equal Variances		
	RAJKOT	BHARUCH
Mean	12.7936	2.0546
Variance	29.4331828	0.4848028
Observations	5	5
Pooled Variance	14.9589928	
Hypothesized Mean Difference	0	
Df	8	
t Stat	4.390183469	
P(T<=t) one-tail	0.001158489	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	0.002316978	
t Critical two-tail	2.306004135	

Table No.4 shows that p value is less than 0.05 so that null hypothesis is rejected. Hence alternate hypothesis is accepted. It is concluded that there is a significant difference in Return on Equity Ratio of Rajkot Union and Bharuch Union.

**(B) Liquidity Ratios:**

**1) Current Ratio:** Current Ratio is a Liquidity Ratio. Current Ratio measures company's ability to pay short term liabilities and dues within one years. The Current Ratio compares company current assets to its current liabilities.

**TABLE-5**

CURRENT RATIO = CURRENT ASSETS / CURRENT LIABILITIES		
YEAR	RAJKOT UNION	BHARUCH UNION
2015-16	1.000	1.254
2016-17	1.022	1.614
2017-18	1.009	1.203
2018-19	0.909	1.305
2019-20	0.818	1.328
AVERAGE	0.951	1.340

The above table shows that Current Ratio of Rajkot union decreased to 0.818 in 2019-2020 from 1.00 in 2015-16. Average Current Ratio in Rajkot union was 0.951. It shows decreasing trend yet it is below the ideal Current ratio. In Bharuch union Current Ratio increased to 1.328 in 2019-20 from 1.254 in 2015-2016. Average Current Ratio in Bharuch union was 1.340. It shows increasing trend. Current Ratio indicates short term financial strength of the firm. Higher ratio shows that firm has enough assets to pay its current liabilities.

**TABLE-6**

t-Test: Two-Sample Assuming Equal Variances		
	RAJKOT	BHARUCH
Mean	0.951448102	1.340950616
Variance	0.007539975	0.025545578
Pooled Variance	0.016542777	
Hypothesized Mean Difference	0	
Df	8	
t Stat	-4.788241698	
P(T<=t) one-tail	0.000688037	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	0.001376075	
t Critical two-tail	2.306004135	

Table No.6 shows that p value is less than 0.05 so that null hypothesis is rejected. Hence alternate hypothesis is accepted. It is concluded that there is a significant difference in Current Ratio of Rajkot Union and Bharuch Union.

**2) Liquid Ratio:** Liquid Ratio is also known as Quick Ratio. Liquid Ratio is an indicator of whether a company's current asset will be sufficient to meet the company's obligation when they become due. Liquid Ratio is used to determine whether a company has enough Liquid Assets to be instantly converted into cash to meet short-term dues.

**TABLE-7**

LIQUID RATIO = LIQUID ASSETS / CURRENT LIABILITIES		
YEAR	RAJKOT UNION	BHARUCH UNION
2015-16	1.099	1.208
2016-17	1.096	1.102
2017-18	1.325	1.21
2018-19	1.25	1.236
2019-20	1.261	1.232
AVERAGE	1.206	1.197

The above table shows that Liquid Ratio of Rajkot union increased to 1.261 in 2019-2020 from 1.099 in 2015-16. Average Liquid Ratio in Rajkot union was 1.206. In Bharuch union Liquid Ratio increased to 1.232 in 2019-20 from 1.208 in 2015-2016. Average Liquid Ratio in Bharuch union was 1.197. It shows an increasing trend in both the unions. Liquid Ratio is an important indicator of the liquidity position of the firm. Higher ratio shows that the firm has enough liquid assets to pay its liabilities.

**TABLE-8**

t-Test: Two-Sample Assuming Equal Variances		
	RAJKOT	BHARUCH
Mean	1.2062	1.1976
Variance	0.0106677	0.0030148
Observations	5	5
Pooled Variance	0.00684125	
Hypothesized Mean Difference	0	
Df	8	
t Stat	0.164399588	
P(T<=t) one-tail	0.436747217	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	0.873494435	
t Critical two-tail	2.306004135	

Table No.8 shows that p value is greater than 0.05 so that null hypothesis is accepted. It is concluded that there is no significant difference in Liquidity Ratio of Rajkot Union and Bharuch Union.

## FINDINGS AND SUGGESTIONS

(1) Net Profit Ratio of Rajkot union is more than one in 2015-16, in 2016-17 it was decreased, after that it was increased. It shows Net Profit Ratio of Rajkot union was unstable. In Bharuch union, the Net Profit Ratio fluctuated during the study period. Rajkot union earns more profit as compared to Bharuch union. In both unions Net Profit Ratio was unsatisfactory. One of the reasons for the lower Net Profit Ratio was the higher manufacturing & operating expenses of unions. Another reason was profit-making is not the main purpose of milk unions.

(2) Return on Equity Ratio of Rajkot union fluctuated during the study period. In Bharuch union's Return on Equity Ratio was continuous unstable during the study period. Return on Equity Ratio of Rajkot union shows that Rajkot union generation handsome refunds for the shareholders, while Bharuch union earns fewer returns for the shareholders compared to Rajkot union.

(3) Current Ratio of the Rajkot union was equal to or more than one till 2017-18 after that it reduced to less than one. During the study period, it was a rise and fell. In Bharuch union, the Current Ratio was continuously going up and down. During the study period, it was more than one for all the years. It shows liquidity position of Bharuch union is good. In Rajkot union, there is a need to improve in liquidity position. There are two ways for that one is to increase current assets and another way is to decrease Current Liabilities.

(4) Liquid Ratio of Rajkot union and Bharuch union were unstable during the period of study. Liquid assets were little more than current liability but not much more. Both unions should have taken the necessary steps to improve the Liquid Ratio. Rajkot union and Bharuch union both had almost similar liquid positions.

## CONCLUSION

From the above analysis, the researcher concluded that both the dairy cooperative units earn the least profit. The reason behind that was the purpose of dairy cooperatives is not to earn profit but protect milk producers from exploitation by private dairies. Another reason was cooperatives cannot increase the selling price because cooperatives are also a safeguard for milk consumers. Based on the return on equity ratio researcher analyzed that the Rajkot union earns more return for the shareholders compared to the Bharuch union. The researcher found that both unions are poor in liquidity. Bharuch union is better than Rajkot union in liquidity.

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