



ORIGINAL RESEARCH PAPER

Commerce

ANALYSIS OF LIQUIDITY AND SOLVENCY POSITION OF SELECTED CO-OPERATIVE MILK UNIONS OF KARNATAKA MILK FEDERATION IN NORTH KARNATAKA

KEY WORDS: Co-operative Unions, Ratios, Index, Efficiency, Growth.

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ABSTRACT

The focus of this research paper is to emphasize the liquidity efficiency and solvency position of Karnataka Milk Federation's selected District Co-operative Milk producers Unions. To meet the objective researcher used Current Ratio, Quick Ratio, Debt-Equity Ratio, Proprietary Ratio and Fixed Assets Ratio. The efforts should be made to increase the profit by reducing cost to improve the efficiency of dairies. The result reveals that financial efficiency of DAMUL, GUMUL and VIMUL are in good.

INTRODUCTION

Co-operative organisation has long been recognized as an effective instrument for bringing about the desired socio economic changes in our country. In the view of predominance of agriculture in Indian economy. Chronic poverty and indebtedness of Indian peasants, dairy co-operatives was the first activity to be organized on a co-operative basis. Industries whereby milk and milk-products handled are known as Dairy Industry. Dairy Industry includes all the firms dealing with the processing of milk and manufacturing of milk products and their marketing in industrial scale. Dairy industrial is a very important and the basic industry for country like India. Nearly 70% of the people in India are based on agriculture and most of have the cattle (cows and buffalos) in their houses.

Indian dairy industry is dominated by co-operative sectors from many years. India represents one of the world's largest and fastest growing markets for milk and milk products. Dairy development on co-operative lines has been recognized as one of the important activities suitable for increasing the income level of the rural poor people. It is also a very significant sector to generate employment for the landless families' weaker sections, in the rural areas.

Dairy industry occupies a prominent position in the industrial structure of India. World focus on India for this industry are because of low cost economy, liberalization process, low inflation rate, inexpensive labour, large democracy, no Government interference etc. Dairy industry has very rapidly infrastructure facilities due to which serve bottlenecks have been created in the way of rapid industrialization. Milk consumption in India has much less than the developed countries. Dairy industry occupies important place in Indian economy. It is one of the industries of consumer goods. Its products are more useful items for popular diet. Large portion of India's population is vegetarian and therefore more milk and milk products are important.

India has a long tradition of keeping milk animals as a part of the farming household. Animals are cared for highly rated milk and milk products are also greatly valued in the society as a source of good nutrition. Cow is considered to be a sacred animal. Milk is used in most of the rituals. Milk production and consumption is always a part of Indian Culture.

Human being is a social animal and therefore he has to stay within the society. He is bounded with the rules and regulations, customs and traditions prevailing within the society. But member of the society required some sort of relations and co-operation for their co-existence and

livelihood. Similarly our daily food and drink require somebody else's effort. The term "co-operation" is developed and become popular from this philosophy. It has gained a wide acceptance in social and economic activities.

REVIEW OF THE LITERATURE

Nilesh N. Shah (2001), conducted a study entitled, "Profitability Analysis of Kaira District Co-operative Milk Producers Union Limited, Anand". In this study researcher tries to find out the profit of the study period and compared it with other years and evaluate the factors affects the profit during the study period. The main finding of research work is that a better performance of Amul during the study period without substantial losses during the years and profit increased every year. The profitability trend of Amul is increased during the period of the study. The low gross profit ratio may indicate unfavourable purchasing and mark-up policies. There is a need to reduce cost of production and improve purchasing policy. The net profit ratio shown a trifling reduction in percentage of net profit is indicates that the administrative expenses are slowly rising.

Selvarani. V (2004) conducted a study entitled, "A Study and Comparative Analysis of Co-operative Milk Producers' Union in Tiruchirappalli and Coimbatore District". Researcher was found that the consumer of both the unions preferred to buy Aavin milk over other brands because of its assured quality and easy availability. More number of the consumers in both the unions found the price to be reasonable and was satisfied with the quality of milk. The selling & administrative and distribution & rural milk collection expenses were found to be very higher in Coimbatore district co-operative milk producers' union. It concluded that the efficient operation of the dairy industry depends on the quantum of procurement of milk and reducing overhead charges of the dairy unit. The dairy unions, through its reasonable pricing policy allowing an good margin of profit to the producers and also bringing milk within the reach of the economically weaker groups, should pave path for the beginning of much cherished 'white revolution' in the country.

Olekar R.O and Dr. Shiralashetti A.S (2007) in their research study "Co-operative Movement in India" said that the growth and development of Co-operatives have not been up to the expectations. The Co-operatives in India have been facing many problems and challenges during World Trade Organisation regime. Hence, everyone should fight against the World Trade Organisation challenges by reforming policies and laws towards co-operatives development in the interest of the India's economic development in general, and members of the co-operatives in particular.

STATEMENT OF THE PROBLEM

“Analysis of liquidity and solvency position of selected Co-operative Milk Unions of Karnataka Milk Federation in North Karnataka”

PERIOD OF THE STUDY

The study is mainly confine to the An Empirical Study of The Financial efficiency of Selected District Dairy Co-operatives in Karnataka. This study covers fifteen years from the period of 2003-04 to 2017-18.

OBJECTIVES OF THE STUDY

1. To analyse the liquidity position of dairy Co-operatives in North Karnataka.
2. To analyse the solvency position of dairy Co-operatives in North Karnataka.

SCOPE OF THE STUDY

The scope of the present study consists of five selected district dairy co-operatives in North Karnataka. The study of analysis of liquidity and solvency position has been undertaken for a period of fifteen years. The study is specifically concentrated on financial efficiency which is found out from the financial data gathered from the annual report of district dairy industries. It is useful to the Dairy Unions for future planning and decision making process, to the Government, stake holders, society and authority of the co-operative dairies and the interested users.

DATA ANALYSIS AND INTERPRETATION

1. Liquidity Ratios

Liquidity refers to the ability of a firm to meet its obligations in the short run usually one year. A firm must have adequate working capital to run its usual operations. Inadequate working capital may bring the entire business operation to a grinding halt because of inability of the firm to pay for salary, wages, day to day expenses and materials. Hence, Liquidity ratios are measured between current assets and current liability.

a. Current Ratio

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Table No.-01 The current ratio of the units of Karnataka Milk federation in North karnataka shows that they are in fluctuating trend in all the Milk unions during the study period of fifteen years. The dairy industries are showing their current ratios in many years are less than the mean values of respective Co-operatives. Lesser the current ratio greater the burden of making payment to their creditors and suppliers, higher burden of liability of the firm constrict to raise the fund from outsiders, because it gives negative signals to the bankers, fund suppliers, money lenders, creditors and others; which may reduces the operational work of the organization and deprived the productions and ultimately the returns to dairy industry in the form of profits.

The grand mean of the industry was at 1.406:1, out of five Milk Unions only two dairy unions i.e. Dharwad and Gulbarga Milk Unions are revealed their mean value of current ratio more than the grand mean or industry mean i.e. 1.65:1 and 2.47:1 rest of the Unions Belgaum, Vijayapura and Bellary Milk Unions are showing their current ratio less than the grand mean value.

b. Quick Ratio

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liability}}$$

Table No.-02 The quick ratio of the dairy industries revealed that all the five dairy unions are in fluctuating trend and in many years the quick ratios are showing lower than the standard norm of the ratio. It means that the dairy industries

are facing the problem of meeting current obligations of the firm. Making of delay in payments to creditors or others will cause to make delay in arrangement of materials and other requirements of productions in the dairy. This also reasoned for losing the market share as well as customers due to not meeting the demand on time.

The grand mean of the industry was at 1.002:1, out of five Milk Unions only two dairy unions i.e. Dharwad and Gulbarga Milk Unions are revealed their mean value of quick ratio more than the grand mean value i.e. 1.03:1 and 1.94:1 rest of the Unions such as Belgaum, Vijayapura and Bellary Milk Unions are showing their quick ratio less than the grand mean value.

2. Solvency Ratios

Solvency ratios calculated by using the balance sheet items determines the part of debt in total financing, solvency ratios are also calculated by using the profit and loss items by determining the degree to which operating profits are enough to cover the fixed charges.

The short term creditors like raw material suppliers and bankers are more concerned with the firm's current debt paying ability. Whereas, the long term creditors like financial institutions, bankers and debenture holders etc. are concerned with the firm's long term financial strength. Hence, the financial position of the firm should have a strong either short or long term.

a. Debt – Equity Ratio:

$$\text{Debt–Equity Ratio} = \frac{\text{Shareholders' Funds}}{\text{Total Long Term Debt}}$$

Table No.-03 The debt-equity ratio of the dairy unions is shows that the grand mean value is at 0.468:1. The dairy unions like Dharwad and Vijayapura district Co-operatives are have its debt-equity ratio more than the grand mean value i.e. 0.55:1 and 0.84:1. The other dairy unions such as Belgaum, Gulbarga and Bellary district co-operatives are have its debt-equity ratios less than the grand mean value. The average of all the dairy unions' shows that the industries are not maintaining the debt equities instead they are dependent on equities of the firm. The dairy unit should make use of debts for their better growth and development.

b. Proprietary Ratio

$$\text{Proprietary Ratio} = \frac{\text{Capital Employed}}{\text{Total Liability}}$$

Table No.-04 The proprietary ratio of the dairy unions is shows that the grand mean value is at 0.554:1. The dairy unions like Dharwad, Belgaum and Vijayapura district Co-operatives are have its proprietary ratio more than the grand mean value i.e. 0.69:1, 0.57:1 and 0.58:1. The other dairy unions such as Gulbarga and Bellary district co-operatives are have its proprietary ratios less than the grand mean value. The dairy industries need to maintain their proprietary ratios as per standard norm of 0.5:1 for its better performance.

c. Fixed Assets Ratio

$$\text{Fixed Assets Ratio} = \frac{\text{Fixed Assets}}{\text{Networth}}$$

Table No.-05 The fixed assets ratio of the dairy unions is shows that the grand mean value is at 0.468:1. The dairy industries are in fluctuation trend in their respective years in the particular unions. The dairy unions like Dharwad and Vijayapura district Co-operatives are have its fixed assets ratio more than the grand mean value i.e. 0.55:1, and 0.84:1. The other dairy unions such as Belgaum, Gulbarga and Bellary district co-operatives are have its fixed assets ratios less than the grand mean value. The dairy industries need to maintain their fixed assets ratios as per standard norm of 0.75:1 for its better functioning.

CONCLUSION

The ratio analysis is prime practice of financial efficiency of any firm. Ratio analysis helps to make systematic summarization of a large collection of data from financial statements in to a short form and to make meaningful interpretations and to reveal accurate conclusion about the financial position and performance of selected district dairy

co-operatives of karnataka. As per the ratios used in this research article to analysis the liquidity efficiency and solvency position of dairies. The overall liquidity in DAMUL and GUMUL are quite good amongst selected district dairy co-operative. . The overall solvency position of DAMUL, GUMUL and VIMUL are quite good amongst selected district dairy co-operative.

TABLE NO.-01 Current Ratios of Selected District Dairy Co-operatives in Karnataka

YEAR	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average Value
Milk Unions																
DAMUL	1.41:1	2.15:1	1.63:1	1.77:1	1.60:1	1.30:1	1.30:1	2.13:1	2.04:1	1.55:1	1.39:1	1.81:1	1.58:1	1.81:1	1.22:1	1.65:1
Index	100	152.48	115.60	125.53	113.48	92.20	92.20	151.06	144.68	109.93	98.58	128.37	112.06	128.37	86.52	
BEMUL	0.74:1	0.48:1	1.18:1	0.53:1	0.49:1	0.40:1	0.47:1	0.85:1	0.99:1	1.29:1	1.11:1	1.32:1	1.05:1	0.88:1	0.93:1	0.85:1
Index	100	64.86	159.46	71.62	66.21	54.05	63.51	114.86	133.78	174.32	150	178.38	141.89	118.92	125.68	
GUMUL	0.25:1	0.46:1	2.50:1	1.66:1	1.20:1	2.35:1	2.97:1	5.79:1	6.87:1	4.85:1	2.37:1	1.32:1	1.35:1	1.44:1	1.64:1	2.47:1
Index	100	184	1000	664	480	940	1188	2316	2748	1940	948	528	540	576	656	
VIMUL	0.57:1	0.62:1	0.77:1	0.76:1	0.84:1	0.94:1	1.01:1	1.18:1	1.51:1	1.38:1	0.94:1	1.02:1	1.06:1	0.99:1	1.41:1	1.00:1
Index	100	108.77	135.09	133.33	147.37	164.91	177.19	207.02	264.91	242.11	164.91	178.95	185.96	173.68	247.67	
RBKMUL	1.11:1	0.75:1	0.91:1	0.83:1	0.90:1	0.84:1	0.77:1	0.95:1	1.20:1	1.07:1	1.09:1	1.11:1	1.32:1	1.44:1	1.55:1	1.06:1
Index	100	67.57	81.98	74.77	81.08	75.68	69.37	85.59	108.11	96.40	98.20	100	118.92	129.73	139.64	
Average Value	0.82:1	0.89:1	1.40:1	1.11:1	1.01:1	1.17:1	1.30:1	2.18:1	2.52:1	2.03:1	1.38:1	1.32:1	1.27:1	1.31:1	1.35:1	1.406:1

TABLE NO.-02 Quick Ratios of Selected District Dairy Co-operatives in Karnataka

YEAR	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average Value
Milk Unions																
DAMUL	0.72:1	1.24:1	1.13:1	1.10:1	1.04:1	0.83:1	1.02:1	1.15:1	1.19:1	0.70:1	1.05:1	1.10:1	0.91:1	1.44:1	0.86:1	1.03:1
Index	100	172.22	156.94	152.78	144.44	115.28	141.67	159.72	165.28	97.22	145.83	152.78	126.39	200	119.44	
BEMUL	0.39:1	0.33:1	0.79:1	0.42:1	0.37:1	0.27:1	0.32:1	0.63:1	0.67:1	0.82:1	0.86:1	0.52:1	0.40:1	0.69:1	0.65:1	0.55:1
Index	100	84.62	202.56	107.69	94.87	69.23	82.05	161.54	171.79	210.26	220.51	133.33	102.56	176.92	166.67	
GUMUL	0.18:1	0.34:1	1.58:1	1.00:1	0.94:1	2.14:1	2.23:1	4.41:1	5.41:1	3.64:1	1.79:1	1.19:1	1.28:1	1.38:1	1.52:1	1.94:1
Index	100	188.89	877.78	555.55	522.22	1188.89	1238.89	2450	3005.56	2022.22	994.44	661.11	711.11	766.67	844.44	
VIMUL	0.39:1	0.42:1	0.47:1	0.46:1	0.56:1	0.72:1	0.71:1	0.75:1	0.93:1	0.87:1	0.71:1	0.61:1	0.76:1	0.81:1	0.92:1	0.67:1
Index	100	107.69	120.51	117.95	143.59	184.62	182.51	192.31	238.46	223.08	182.05	156.41	194.87	207.69	235.90	
RBKMUL	0.79:1	0.51:1	0.67:1	0.63:1	0.70:1	0.68:1	0.66:1	0.77:1	1.03:1	0.75:1	0.85:1	0.91:1	0.88:1	1.17:1	1.28:1	0.82:1
Index	100	64.56	84.81	79.75	88.61	86.76	83.54	97.47	130.38	94.94	107.59	115.19	111.39	148.10	162.03	
Average Value	0.49	0.57	0.93	0.72	0.72	0.93	0.99	1.54	1.85	1.36	1.05	0.88	0.85	1.10	1.05	1.002:1

TABLE NO.-03 Debt-Equity Ratios of Selected District Dairy Co-operatives in Karnataka

YEAR	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average Value
Milk Unions																
DAMUL	1.57:1	1.24:1	1.25:1	0.96:1	0.72:1	0.91:1	0.00:1	0.00:1	0.00:1	0.00:1	0.00:1	0.63:1	0.33:1	0.23:1	0.43:1	0.55:1
Index	100	78.98	79.62	61.15	45.86	57.96	00.00	00.00	00.00	00.00	00.00	40.13	21.02	14.65	27.39	
BEMUL	1.01:1	0.99:1	0.65:1	0.53:1	0.35:1	0.19:1	0.06:1	0.00:1	0.05:1	0.51:1	0.17:1	0.43:1	0.20:1	0.00:1	0.00:1	0.34:1
Index	100	98.02	64.36	52.48	34.65	18.81	5.94	00.00	4.95	50.50	16.83	42.57	19.80	00.00	00.00	
GUMUL	1.12:1	0.56:1	1.08:1	0.90:1	0.73:1	1.02:1	0.00:1	0.00:1	0.00:1	0.00:1	0.00:1	0.05:1	0.05:1	0.05:1	0.04:1	0.37:1
Index	100	50.00	96.43	80.36	65.18	91.07	00.00	00.00	00.00	00.00	00.00	04.46	04.46	04.46	03.57	
VIMUL	2.48:1	2.25:1	1.90:1	1.47:1	1.31:1	1.24:1	0.49:1	0.36:1	0.30:1	0.27:1	0.27:1	0.22:1	0.01:1	0.01:1	0.01:1	0.84:1
Index	100	90.73	76.61	59.27	52.82	50.00	19.76	14.52	12.10	10.88	10.88	08.87	00.40	00.40	00.40	
RBKMUL	0.44:1	0.39:1	0.26:1	0.16:1	0.12:1	0.11:1	0.15:1	0.11:1	0.09:1	0.18:1	0.12:1	0.11:1	0.19:1	0.57:1	0.62:1	0.24:1
Index	100	88.64	59.09	36.36	27.27	25.00	34.09	25.00	09.44	40.90	27.27	25.00	08.36	129.55	140.91	
Average Value	00.13	00.12	00.25	00.19	00.36	00.23	00.29	00.80	00.61	00.42	00.33	00.34	00.42	00.52	00.45	0.468:1

TABLE NO.-04 Proprietary Ratios of Selected District Dairy Co-operatives in Karnataka

YEAR	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average Value
Milk Unions																
DAMUL	0.83:1	0.86:1	0.82:1	0.85:1	0.78:1	0.74:1	0.67:1	0.71:1	0.73:1	0.63:1	0.49:1	0.62:1	0.54:1	0.62:1	0.52:1	0.69:1
Index	100	103.61	98.79	102.41	93.98	89.15	80.72	85.54	87.95	75.90	59.04	74.70	65.06	74.69	62.65	

BEMUL	0.89:1	0.89:1	1.14:1	0.54:1	0.53:1	0.52:1	0.51:1	0.53:1	0.44:1	0.55:1	0.42:1	0.53:1	0.40:1	0.20:1	0.46:1	0.57:1
Index	100	100	128.09	60.67	59.55	58.42	57.30	59.55	49.44	61.79	47.19	59.55	44.94	22.47	51.68	
GUMUL	0.49:1	0.58:1	0.87:1	0.84:1	0.70:1	0.66:1	0.41:1	0.32:1	0.25:1	0.23:1	0.37:1	0.49:1	0.42:1	0.48:1	0.56:1	0.51:1
Index	100	118.37	177.55	171.43	142.86	134.69	83.67	65.31	51.02	49.94	75.51	100	85.71	97.96	114.28	
VIMUL	0.78:1	0.79:1	0.77:1	0.75:1	0.64:1	0.59:1	0.64:1	0.63:1	0.64:1	0.52:1	0.35:1	0.36:1	0.38:1	0.39:1	0.41:1	0.58:1
Index	100	101.28	98.72	96.15	82.05	75.64	82.05	80.76	82.05	66.67	44.87	46.15	48.72	50.00	52.56	
RBKMUL	0.70:1	0.68:1	0.67:1	0.62:1	0.47:1	0.40:1	0.40:1	0.38:1	0.36:1	0.25:1	0.24:1	0.28:1	0.29:1	0.28:1	0.31:1	0.42:1
Index	100	97.14	97.71	88.57	67.14	57.14	57.14	54.28	51.43	35.71	34.28	40.00	41.42	40.00	44.29	
Average Value	00.13	00.12	00.25	00.19	00.36	00.23	00.29	00.80	00.61	00.42	00.33	00.34	00.42	00.52	00.45	0.554:1

TABLE NO.:-05 Fixed Assets Ratios of Selected District Dairy Co-operatives in Karnatak

YEAR	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average Value
Milk Unions																
DAMUL	1.15:1	1.08:1	1.03:1	0.95:1	1.02:1	1.28:1	0.60:1	0.56:1	0.56:1	0.61:1	0.56:1	0.61:1	0.66:1	0.64:1	1.09:1	0.55:1
Index	100	93.91	89.56	82.61	88.70	111.30	52.17	48.70	48.70	53.04	48.70	53.04	57.39	55.65	94.78	
BEMUL	1.59:1	1.60:1	0.97:1	1.52:1	1.43:1	1.45:1	1.24:1	0.92:1	1.09:1	0.95:1	1.03:1	1.04:1	1.12:1	1.51:1	1.09:1	0.34:1
Index	100	100.63	61.01	95.60	89.94	91.19	77.99	57.86	68.55	59.75	64.78	65.41	70.44	94.97	68.55	
GUMUL	1.54:1	1.51:1	1.23:1	1.26:1	1.19:1	1.59:1	1.59:1	1.60:1	1.60:1	1.61:1	1.36:1	0.70:1	0.70:1	0.65:1	0.65:1	0.37:1
Index	100	98.05	79.87	81.82	77.27	103.25	103.25	103.90	103.30	104.55	88.31	45.45	45.45	42.21	42.21	
VIMUL	0.55:1	0.49:1	0.49:1	0.63:1	0.76:1	0.74:1	0.55:1	0.51:1	0.54:1	0.58:1	0.91:1	0.74:1	0.52:1	0.68:1	0.67:1	0.84:1
Index	100	89.09	89.09	114.55	138.18	134.55	100.00	92.73	98.18	105.45	165.45	134.45	94.55	123.64	121.82	
RBKMUL	1.28:1	1.21:1	1.17:1	1.15:1	1.33:1	1.51:1	1.54:1	1.52:1	1.60:1	2.02:1	1.76:1	1.56:1	1.38:1	1.36:1	1.43:1	0.24:1
Index	100	94.53	91.41	89.84	103.91	117.97	120.31	118.75	125	157.81	137.50	121.88	107.81	106.25	111.72	
Average Value	00.13	00.12	00.25	00.19	00.36	00.23	00.29	00.80	00.61	00.42	00.33	00.34	00.42	00.52	00.45	0.468:1

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