ANALYSING FINANCIAL EFFICIENCY OF COOPERATIVE MILK UNIONS IN KARNATAKA WITH SPECIAL REFERENCE TO DAMUL

Dr. N. M. Makandar  
Associate Professor of Commerce  
Anjuman P.G. Department of Commerce  
And Management, Dharwad-01

Fazalath Hussain, R  
Research Scholar, Bharthiar University  
Coimbatore. Tamil Nadu

Lecturer, Sana College of Commerce and Management. Hubli

ABSTRACT

In India no problem is as grave and alarming as that of employment. Poverty and unemployment rates followed by the glaring inequalities of income and consumption which have been substantial. The animal production enterprises particularly dairying provides not only additional income, but also provides much larger employment opportunities to rural population. The agriculture being only seasonal, the dairy industry provides off season work, steady incomes and keeps the rural population employed throughout the year.

Key words: KMF, Efficiency of DMU, Impact, Ratio Analysis, Financial Growth.

Introduction

The Co-operative movement started in India in the last decade of the 19th Century with two objects in view, i.e. to protect the farmers from the hands of the private money lenders and to improve their economic condition. Madras province was the birth-place of this movement. With the setting up of an Agricultural Co-operative Banks there the movement took root in our Land and slowly gained strength. However, the growth of Co-operative movement in India during British rule was very slow and haphazard one. In most of the cases, the provincial governments took the lead. The foreign ruler had only made some committees or framed a few rules and regulations. But they did not take any wide-ranging programme to spread the movement all over the country.

From chronic shortages of milk, India has emerged today as the largest producer of milk in the world crossing 97 million tonnes. It is 'The Oyster' of the global dairy industry. It offers opportunities galore to entrepreneurs worldwide, who wish to capitalize on one of the world's largest and fastest growing markets for milk and milk products. A bagful of 'pearls' awaits the international dairy processor in India. The Indian dairy industry is rapidly growing, trying to keep pace with the galloping progress around the world.

Karnataka Milk Federation

The Corporate Office of the Karnataka Milk Federation is located in Bangalore. The Federation has a Board consisting representatives of Milk Producers and the Government nominees. The day to day functions of the Federation is managed by a group of professional managers headed by the Managing Director. Karnataka Cooperative Milk Producers' Federation Limited (KMF) is the Apex Body in Karnataka representing Dairy Farmers' Co-operatives. It is the third largest dairy co-operative amongst the dairy cooperatives in the country. In South India it stands first in terms of procurement as well as sales. One of the core functions of the Federation is marketing of Milk and Milk Products. The Brand “NANDINI” is the household name for Pure and Fresh milk and milk products. KMF has 13 Milk Unions throughout the State, which procure milk from Primary Dairy Cooperative Societies (DCS) and distribute milk to the consumers in various Towns/Cities/Rural markets in Karnataka. The first ever World Bank funded Dairy Development Program in the country started in Karnataka with the organization of Village Level Dairy Cooperatives in 1974. The AMUL pattern of dairy co-operatives started functioning in Karnataka from 1974-75 with the financial assistance from World Bank, Operation Flood II
& III. The dairy co-operatives were established under the ANAND pattern in a three tier structure with the Village Level Dairy Co-operatives forming the base level, the District Level Milk Unions at the middle level to take care of the procurement, processing and marketing of milk and the Karnataka Milk Federation as the Apex Body to coordinate the growth of the sector at the State level. Coordination of activities among the Unions and developing market for Milk and Milk products is the responsibility of KMF. Marketing Milk in the respective jurisdiction is organized by the respective Milk Unions. Surplus / deficit of liquid milk among the member Milk Unions is monitored by the Federation. While the marketing of all the Milk Products is organized by KMF, both within and outside the State, all the Milk and Milk products are sold under a common brand name “Nandini”.

**Need for the study**

Dairying has played a prominent role in strengthening India’s rural economy. It has been recognized as an instrument to bring socio-economic transformation. A symbiotic relationship exists between dairy farmers and the milk unions who process the raw milk collected from the farmers. To strengthen the recent gains in milk production, processing calls for new development initiatives and critical analysis of the financial performance of milk unions. Dairying must address itself to issues of profitability, efficiency, solvency, liquidity and turnover. Effective functioning of dairy cooperatives could translate into significant benefits to dairy farmers. Thus this article aims to investigate the financial performance of Dharwad milk union under Karnataka Milk Federation (KMF). The financial analysis of the milk unions was done taking into consideration the ratios which are critical, as it would allow milk unions to capitalize on their strengths and exploit opportunities.

**Review of Literature**

*Mattiigatti (1990)* Studied the performance of milk producers cooperative societies and their impact on dairy farming in Dharwad district. The author selected a number of physical and financial indicators to evaluate the performance. The secondary data required was collected from the various annual reports of milk producers cooperative societies for the period 1986-88. He opined that both the physical and financial indicators of the societies showed significant growth in their values. The above average societies have already progressed with higher values for the indicators compared to below average societies, while below average societies well shown a greater rate of growth, hence; he concluded that over the period of time all these societies would contribute to the overall development of the societies.

*Kale et al (2000)* studied the financial position working and operational efficiency of 23 dairy cooperatives in Raigad district of Maharashtra. They studied the economic efficiency through income expenditure ratio, expenditure income ratio, rate of return on capital and rate of turnover. They concluded that (i) the societies had low owned capital and were dependent on borrowing from financial institutions (ii) even though the working capital of the dairy cooperatives was low, their turnover was high because dairy cooperative did not make payment to milk producers from their own funds. Therefore, dairy cooperatives were able to carry on business with limited capital and (iii) majority of the societies was trading profit.

*Jayachandra Reddy et al (2004)* conducted a comparative study of economics of milk production in three states, viz., Chittoor district in Andhra Pradesh, Erode district in Tamil Nadu and Kolar district in Karnataka involving aspects related to existing cost structure of milk production, profitability of crossbred dairy cows in the three states under the viability and profitability of these enterprises. The net profitability varied from 43 percent in Tamil Nadu, 70 percent in Andhra Pradesh and 83 percent in Karnataka. The study has further brought out the fact that higher fat content provides higher prices as milk is priced based on fat and solid not-fat (SNF) content by dairies. Hence proper scientific breeding procedure is to be followed to improve fat content in the milk as well as milk production per animal.

*Thakur And Singh (2004)* Conducted surveys in the year 2002-03 to assess the energy and cost requirement for milk production in different commercial dairy farms in four locations, viz., Maharajpur, Imaliya, Pariyat and Mohaniya, around the Panagar block of Jabalpur district, representing the more plateau and Satpura hills zone of Madhya Pradesh. The locations for conducting the survey was selected at random without following
any statistical method as there are enough number of commercial dairy farms to get a good comprehensive data on the different activities in milk production.

Singh and Rekha Dayal (2004) studied the economics of production and marketing of milk in the state of Uttar Pradesh. Linear and log-linear functions were used to work out the estimates of factors affecting marketed surplus of milk both for the private and cooperative systems. The results of the study indicated that the feed and fodder cost was the most important item of the total maintenance cost accounting for 55 to 65 percent of the total cost in zone-I and 51 to 66 percent in zone-II. The net profit per day of a Milch buffalo was very low due to the higher maintenance and low milk yield of milch buffalo on each herd size group in each zone of the state.

Sidhu et al (2004) studied the impact of dairy on income and employment in Punjab. The study revealed that the livestock economy especially dairy is considered to be an economically viable alternative for increasing income and employment in the farm sector of Punjab. It is clear that the contribution of livestock economy to the farm sector has increased over time whereas the contribution of crop sub-sector to the agricultural growth as well as NSDP has declined due to stagnation/fall in productivity of important crops, rise in fixed cost and degradation of soil and water resources. The importance of dairy especially on small and marginal farms has increased and the proportion of dairy to the total farm business income on these farms has increased.

Kyoratungye Karemente, Jennifer Rose Aduwo, Emmanuel Mugejerra and Jude Lubega(2011) Previous research has shown that knowledge management provides a major competitive advantage and as such is a critical activity. This is so given that KM is the process of managing knowledge through a systematically and organizationally specified process for acquiring, organizing, sustaining, sharing, and renewing both tacit and explicit knowledge of employees to enhance organizational performance and reate value

N. Ramanjaneyalu (2012) studied the consumer behavior and dealers perception towards union of KMF. Study reviews that to excel in the highly competitive business the company needs to evolve their production, marketing and pricing strategies effectively. For doing this a clear perception about consumer preference with regard to product and service quality and price is of utmost importance. The present research work provides some insight in this matter. The study suggests that availability of Nandini milk to the retailers and to the consumers is adequate. However the public awareness about Nandini’s different types of milks is not adequate. The company has to reinforce its sales promotional activities by enhancing advertisements in Television, newspaper and displays.

Objectives of the study

1. To determine the quantum and structure of the current Assets.
2. To analyze the relationship between the current Assets and current liabilities.
3. To determine the policy regarding profitability, liquidity and risk by considering the company’s objectives.

Methodology

The Research study was made an attempt to examine the financial efficiency of cooperative milk unions with special reference to Dharwad milk union, that would be included as a research object and the study can be based on objectives. It is based on secondary data, annual reports of the company, balance sheet, income statement and company website etc.

Data analysis and Interpretation

The data collected was subjected to data analysis using ratio analysis and correlation as a statistical tool, the following ratios and tools utilized:

Current ratio
Quick or acid test ratio
Working capital turnover ratio

Current assets turnover ratio

Correlation

Current ratio

The current ratio of a unit measures the firm's short-term solvency that is, its ability to meet short-term obligations. It mainly used to give an idea of the company's ability to pay short-term liabilities (debt and payables) with its short-term ratio of total current assets to total current liabilities.

\[
\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}.
\]

Current assets include closing stock, deposits, debts, loans and advances, sundry debtors, cash in hand and bank accounts. Current liabilities include: grants, O.S.L., other liabilities, salary, recoveries, security deposits a/c, unpaid salary/wages duties and taxes, sundry creditors.

### The table 1 Showing current ratio

<table>
<thead>
<tr>
<th>Year</th>
<th>Current assets</th>
<th>Current liabilities</th>
<th>Current ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>8,62,29,464</td>
<td>3,85,01,054</td>
<td>2.24</td>
</tr>
<tr>
<td>2008-09</td>
<td>7,53,69,860</td>
<td>5,36,46,013</td>
<td>1.4</td>
</tr>
<tr>
<td>2009-10</td>
<td>9,85,39,089</td>
<td>7,03,03,203</td>
<td>1.4</td>
</tr>
<tr>
<td>2010-11</td>
<td>17,26,44,224</td>
<td>11,22,67,331</td>
<td>1.54</td>
</tr>
<tr>
<td>2011-12</td>
<td>16,12,51,763</td>
<td>10,92,56,852</td>
<td>1.48</td>
</tr>
</tbody>
</table>

Source: Secondary data

Interpretation:

The above table depicts that the current ratio is high in the year 2007-08 i.e. 2.24 which is more than the conventional norm 2.0 making it capable for the company to pay its obligations. Therefore, the liquidity position of Dharwad Milk Union is satisfactory even though the ratio for the subsequent years is less than the conventional norm.

Quick ratio or acid test ratio

The essence of this ratio i.e. acid test ratio is a test that indicates whether a firm has enough short-term assets to cover its immediate liabilities without. It is calculated by dividing the quick assets by the current liabilities.

\[
\text{QUICK RATIO} = \frac{\text{Quick current Assets}}{\text{Current liabilities}}.
\]

### The table 2 Showing quick ratio

<table>
<thead>
<tr>
<th>Year</th>
<th>Current assets</th>
<th>Current liabilities</th>
<th>Current ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>3,19,26,211</td>
<td>3,85,01,054</td>
<td>0.84</td>
</tr>
<tr>
<td>2008-09</td>
<td>1,79,40,614</td>
<td>5,36,46,013</td>
<td>0.33</td>
</tr>
<tr>
<td>2009-10</td>
<td>5,00,61,215</td>
<td>7,03,03,203</td>
<td>0.71</td>
</tr>
<tr>
<td>2010-11</td>
<td>1,62,59,79,941</td>
<td>11,22,67,331</td>
<td>1.46</td>
</tr>
<tr>
<td>2011-12</td>
<td>1,92,12,128</td>
<td>10,92,56,852</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Source: Secondary data

Interpretation:

The above table depicts the liquidity ratio of Dharwad Milk Union is satisfactory in the year 2007-08 and 2010-11 with ratios that have attained the standard norm required i.e. 0.84 and 1.46. Therefore, the company can
pay its current liabilities with its quick assets by utilizing the current assets properly. Hence the liquidity ratio of Dharwad Milk Union is satisfactory.

**Working capital turnover ratio**

The ratio is used to analyze the relationship between the money used to fund operations and purchase inventory which is later converted to sales. The higher the working capital turnover the better because the company will generate more sales compared to the money used to fund the sales.

It is calculated by following formula.

\[
\text{Working capital turnover ratio} = \frac{\text{Cost of Goods Sold}}{\text{Net Working Capital}}
\]

\[
\text{Cost of goods sold} = \text{sales} - \text{gross profit}
\]

\[
\text{Net working capital} = \text{current assets} - \text{current liabilities}
\]

<table>
<thead>
<tr>
<th>Year</th>
<th>Current assets</th>
<th>Current liabilities</th>
<th>Current ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>43,98,40,675</td>
<td>4,77,28,410</td>
<td>9.22</td>
</tr>
<tr>
<td>2008-09</td>
<td>49,50,39,504</td>
<td>2,17,23,847</td>
<td>27.4</td>
</tr>
<tr>
<td>2009-10</td>
<td>59,57,37,895</td>
<td>2,82,35,886</td>
<td>21.1</td>
</tr>
<tr>
<td>2010-11</td>
<td>89,50,58,398</td>
<td>6,03,76,893</td>
<td>14.82</td>
</tr>
<tr>
<td>2011-12</td>
<td>1,05,34,36,218</td>
<td>5,19,94,911</td>
<td>20.26</td>
</tr>
</tbody>
</table>

**Source:** Secondary data

**Interpretation:**

The above table depicts that the working capital of Dharwad Milk Union is in decreasing trend but in 2008-09 it has shown an increase with ratio of 27.40 indicating that the company utilized its working capital properly. As well as in the year 2011-12 showing an increase with a ratio of 20.26. Therefore, Dharwad Milk Union is at a position of generating more sales.

**Current assets turnover ratio**

This ratio indicates how efficiently a firm is using its current assets to generate revenue. The higher the ratio, the better the firm is in utilizing its current assets. The lower the ratio the clear picture is that the firm’s investment had not generated any gain.

It is calculated by the following formula.

Current asset turnover ratio= total sales/current assets ratio

<table>
<thead>
<tr>
<th>Year</th>
<th>Current assets</th>
<th>Current liabilities</th>
<th>Current ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>51,18,17,606</td>
<td>8,62,29,464</td>
<td>6.22</td>
</tr>
<tr>
<td>2009-10</td>
<td>73,76,99,820</td>
<td>9,85,39,089</td>
<td>7.49</td>
</tr>
<tr>
<td>2010-11</td>
<td>1,04,37,84,820</td>
<td>17,26,44,224</td>
<td>6.05</td>
</tr>
<tr>
<td>2011-12</td>
<td>1,23,00,96,774</td>
<td>16,12,51,763</td>
<td>7.63</td>
</tr>
</tbody>
</table>

**Source:** Secondary data
Interpretation:
The above table shows that, the Dharwad Milk Union has utilized its current assets. The year 2007-08 and 2008-09, the ratio has increased i.e. 6.22 to 8.07 reflecting good current assets management. Therefore throughout the years it can be concluded that the Dharwad milk union is efficiently managing its current assets.

The table 5 Correlation between current liability and fixed assets

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>X-Y</th>
<th>Y-Y</th>
<th>X^2</th>
<th>Y^2</th>
<th>XY</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.62,29,464</td>
<td>3.85,01,054</td>
<td>-3.25,77,416</td>
<td>-3.82,93,837</td>
<td>1.06,12,880</td>
<td>1.46,64,179</td>
<td>1.24,75,143</td>
</tr>
<tr>
<td>7.53,69,860</td>
<td>5.36,46,013</td>
<td>-4.34,37,020</td>
<td>-2.31,48,878</td>
<td>1.88,67,747</td>
<td>5.35,87,055</td>
<td>1.00,55,183</td>
</tr>
<tr>
<td>9.85,39,089</td>
<td>7.03,03,203</td>
<td>-2.02,67,791</td>
<td>-64.91,688</td>
<td>4.10,78,335</td>
<td>4.21,42,013</td>
<td>1.31,57,217</td>
</tr>
<tr>
<td>17.26,44,224</td>
<td>11.22,67,331</td>
<td>5.38,37,344</td>
<td>3.54,72,440</td>
<td>2.89,84,596</td>
<td>1.25,82,939</td>
<td>1.37,78,441</td>
</tr>
<tr>
<td>16.12,51,763</td>
<td>10.92,56,852</td>
<td>4.24,44,883</td>
<td>3.24,61,961</td>
<td>1.80,15,681</td>
<td>1.05,37,789</td>
<td>1.37,78,441</td>
</tr>
<tr>
<td>59,40,34,400</td>
<td>38,39,74,453</td>
<td>11,75,59,239</td>
<td>13,35,13,975</td>
<td>6,85,63,403</td>
<td>1,00,55,183</td>
<td>1,00,55,183</td>
</tr>
</tbody>
</table>

Source: Secondary data

Interpretation:
The above table shows that, Correlation between current liability and fixed assets is to be 0.547288. Thus we can say that there is a positive relationship between current liabilities and current assets.

Conclusion
The study financial efficiency of Dharwad Milk Union is satisfactory. In this study where it reveals that the growth and liquidity position of DMU is positively correlated. Working in various accounts and finance department to procure more information regarding to working capital management. For this study five years financial statement i.e. Balance Sheet and Profit & Loss account have been taken for calculating ratio analysis to check the liquidity position of the Dharwad Milk Union whereby its position in the past years was occupied with problems like finance and marketing it experienced less quantity of milk supply. But in recent years it has a better position through utilizing its assets and resources properly hence generating more income.

References
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12. Financial Statements of DMU.