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ANALYSIS OF LIQUIDITY

6.1 INTRODUCTION

Liquidity of business is one of the key factors determining its propensity succeeds or failed. Both excess and shortage of liquidity affect the interest of the enterprise. By excess liquidity in a business enterprise, it is meant that it is carrying higher current assets than are warranted by the requirements of production. As per the accountant; working capital is a liquidity concept. Whether the firm will be able to pay of its debts is using its cash flow is more important than what level of current or non-current assets it maintains. Viewed thus, the difference between current assets and current liabilities is more important than the size of investment either in current assets or current liabilities. The efficiency of working capital management finally depends upon the liquidity that is maintained by the firm. Through several other factors may decided the liquidity of the firm, change cash flow, consequent upon the change in working capital items are lightly pertinent. If cash flow were certain, less working capital would be required, usually the problems stems from the difficulty in forecasting in flows vis-a-vis outflows.

6.2 CONCEPT OF LIQUIDITY

By the term ‘liquidity’ is meant the debt-repaying capacity of an undertaking. It refers to the firm’s ability to meet the claims of suppliers of goods, services and capital. According to Archer and D’Ambrosio, liquidity means cash and cash availability, and it is from current operations and previous accumulations that cash is available, to take care of the claims of both the short-term suppliers of capital and the long-term ones. It has two dimensions; the short-term and the long-term liquidity.

Short-term liquidity implies the capacity of the undertaking, to repay the short-term debt which means the same as the ability of the firm in meeting the currently maturing obligations from out of the current assets. The purpose of the short-term analysis is to
derive a picture of the capacity of the firm to meet its short-term obligations out of its short-term resources, that is, to estimate the risk of supplying short-term capital to the firm.

Analysis of the firm’s long-term position has for its rationale the delineation of the ability of a firm to meet its long-term financial obligations such as interest and dividend payment and repayment of principal. Long-term liquidity refers to the ability of the firm to retire long-term debt and interest and other long-run obligations. When relationships are established along these lines, it is assumed that in the long-run assets could be liquidated to meet the financial claims of the firm. Quite often the expression ‘liquidity’ is used to mean short term liquidity of the companies.

In the present study, liquidity is taken to mean the short-term liquidity which refers to the ability of the undertakings to pay off current liabilities. This is chosen because the study relates to the management of short-term assets and liabilities. In other words, the long-run success of an undertaking lies in its ability to survive in the immediate future. Further, Dairy units may have tremendous potential for little profitability in the long run but may languish due to inadequate liquidity. It is, therefore, short-term liquidity that has been considered crucial to the very existence of an enterprise.

6.3 RELATIONSHIP BETWEEN LIQUIDITY AND PROFITABILITY

Liquidity has an important relationship with profitability. If we have enough liquid resources, we may be able to get benefit of cash discount on purchases and consequently that will be result in increasing profits. If we cannot pay the creditors for goods in the given period, we have to pay interest on the amount of purchases. Thus, shortage of liquid resources will result in low of cash discount and payment of interest. Both the losses will certainly decrease over profits. Secondly, we may keep the stock at desired manners and that will benefit us in circulation of business activities. Contrary to this, if we are not able to keep sufficient stock due to shortage of liquid resources, then the production cycle may not be continued and that will result in heavy losses. Liquidity
resources of a business concern for all over to expand huge business activities more, and less in financial. In case of Co-operative Dairy Units in Gujarat, the management of liquid resources plays a greater role.

6.4 MEASUREMENT OF LIQUIDITY

Liquidity of an enterprise can be studied in two ways, namely, (i) Technical liquidity, and (ii) Operational liquidity. The difference between the two methods liquidity measurement depends upon whether one assumes the ‘liquidation concept’ business as in case of the technical liquidity or the ‘going concern concept’ of business as in the case of the operational liquidity. The first method of computation of liquidity is based on the assumption that the firm might become insolvent at any time and whether, in such an event, the current assets held by the undertakings would be sufficient to pay-off the current liabilities. On the other hand, the computation of ‘operational liquidity’ attempts the measurement of the firm’s potential to meet the current obligations on the basis of net cash flows originating from out of its own operations with the view that a manufacturing enterprise cannot pay off current liabilities from its current assets when it is in the run. It is assumed under this approach that firms are going firms and hence the liabilities are met through the net cash flows arising out of their operations.

1. TECHNICAL LIQUIDITY:

Technical liquidity is normally evaluated on the basis of the following ratio in a business enterprise.

1. Current Ratio
2. Quick Ratio
3. Liquid Ratio
2. OPERATIONAL LIQUIDITY:

The efficiency ratios are particularly useful to the manager trying to improve the operational efficiency of the enterprise. Numerous ratios can be calculated and used for analyzing the efficiency of the working capital but generally, three important ratios are used, Inventory Turnover Ratio, Debtors Turnover Ratio and Working Capital Turnover Ratio.

6.5 LIQUIDITY ANALYSIS OF THE CO-OPERATIVE DAIRY UNITS UNDER STUDY

The concept of liquidity within a business is vital to the understanding of financial management as it is the basic criteria of test the short term liquidity position of the enterprise. For the analyzing of liquidity of Co-operative dairy units the following ratios have been computed.

1. Current Ratio
2. Quick Ratio
3. Liquid Ratio

6.5.1 CURRENT RATIO

It is most widely used measure of testing liquid position of a concern. It is applied to test solvency and short-term financial strength of a concern. It indicates the relationship between firm’s current assets to current liabilities. “Current ratio is a tool for measuring the short-term stability or ability of a company to carry on day-to-day work and meet the short-term commitments earlier.” The significant of the current ratio is that it is not only a measure of solvency but is an index of working capital available of the enterprises.

\[
\text{Current Ratio} = \frac{\text{Total Current Asset}}{\text{Total Current Liabilities}}
\]
This ratio is an indicator of the firm’s commitment to meet short-term liabilities. Current assets means the assets that will either be used up or converted into cash within a year’s time or normal operating cycle of the business whichever is longer. Current liabilities means payable within a year operating cycle whichever is longer out of the existing current assets by creation of current liabilities. It is an index of the solvency of a concern. An ideal current ratio is 2:1 the ratio is considered as a safe margin of solvency due to the fact that if the current assets are reduced to half i.e. one instead of two then also the creditor will be able to get their payments in full. However, a business having seasonal trading activity may show a lower current ratio at certain period of the year. A very high current ratio is also not desirable since it means less efficient use of funds. This is because a high current ratio means excessive dependence on long-term sources of raising funds.

Table No. 6.1.A
Current Ratio of the Dairy Units under Study
(From 2003-04 to 2012-13)

<table>
<thead>
<tr>
<th>Year</th>
<th>Dudhsagar Dairy</th>
<th>Gopal Dairy</th>
<th>Amul Dairy</th>
<th>Sumul Dairy</th>
<th>Vasudhara Dairy</th>
<th>Sabar Dairy</th>
<th>Madhur Dairy</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>1.09</td>
<td>1.42</td>
<td>2.37</td>
<td>0.97</td>
<td>1.86</td>
<td>1.33</td>
<td>0.94</td>
<td>1.4257</td>
</tr>
<tr>
<td>2004-05</td>
<td>1.20</td>
<td>1.30</td>
<td>2.33</td>
<td>0.89</td>
<td>1.68</td>
<td>1.28</td>
<td>0.98</td>
<td>1.38</td>
</tr>
<tr>
<td>2005-06</td>
<td>1.84</td>
<td>1.57</td>
<td>2.12</td>
<td>0.89</td>
<td>1.81</td>
<td>1.30</td>
<td>1.22</td>
<td>1.5357</td>
</tr>
<tr>
<td>2006-07</td>
<td>1.91</td>
<td>1.07</td>
<td>1.64</td>
<td>0.90</td>
<td>1.40</td>
<td>1.32</td>
<td>1.20</td>
<td>1.3485</td>
</tr>
<tr>
<td>2007-08</td>
<td>2.13</td>
<td>1.35</td>
<td>2.09</td>
<td>1.16</td>
<td>2.23</td>
<td>1.22</td>
<td>1.14</td>
<td>2.83</td>
</tr>
<tr>
<td>2008-09</td>
<td>2.28</td>
<td>1.07</td>
<td>1.62</td>
<td>1.11</td>
<td>1.25</td>
<td>1.09</td>
<td>1.03</td>
<td>1.35</td>
</tr>
<tr>
<td>2009-10</td>
<td>3.14</td>
<td>1.16</td>
<td>1.33</td>
<td>0.75</td>
<td>1.97</td>
<td>1.06</td>
<td>0.83</td>
<td>1.4628</td>
</tr>
<tr>
<td>2010-11</td>
<td>4.55</td>
<td>0.81</td>
<td>1.36</td>
<td>1.14</td>
<td>1.92</td>
<td>4.42</td>
<td>0.88</td>
<td>3.77</td>
</tr>
<tr>
<td>2011-12</td>
<td>2.01</td>
<td>1.20</td>
<td>1.14</td>
<td>1.18</td>
<td>2.75</td>
<td>3.57</td>
<td>0.74</td>
<td>1.7985</td>
</tr>
<tr>
<td>2012-13</td>
<td>3.53</td>
<td>0.95</td>
<td>1.21</td>
<td>1.54</td>
<td>2.19</td>
<td>1.46</td>
<td>0.68</td>
<td>1.6514</td>
</tr>
<tr>
<td>Total</td>
<td>23.68</td>
<td>11.9</td>
<td>17.21</td>
<td>10.53</td>
<td>19.06</td>
<td>18.05</td>
<td>9.64</td>
<td>18.552</td>
</tr>
<tr>
<td>Average</td>
<td>2.368</td>
<td>1.19</td>
<td>1.721</td>
<td>1.053</td>
<td>1.906</td>
<td>1.805</td>
<td>0.964</td>
<td>1.8552</td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective Dairy Units.
Dudhsagar dairy

In Dudhsagar Dairy the current assets and current liabilities recorded a progressive and fluctuating trend during the study period. The ratio was higher than the norms of 2:1 in 2007-08 to 2012-13. The average of this ratio was more than the norms (2.368 Times). The highest ratio was 4.55 times in 2010-11 and the lowest ratio was 1.09 times in 2003-04. The average ratio of Dudhsagar Dairy was highest among all the Dairy Units. From the creditor point of view the solvency position of this Dairy was sound in 2010-11 and 2012-13 because the current assets of this year were more than the double.

Gopal Dairy

In Gopal Dairy the current assets and current liabilities recorded a fluctuating tendency during the period of study. The current ratio of Gopal dairy was always less than the
standard norms. The highest ratio was 1.57 times in 2005-06 and the lowest ratio was 0.81 times in 2010-11. The average ratio of Gopal Dairy was 1.19 times.

**Amul Dairy**

During the study period the current ratio of Amul dairy varied in a wide range of 2.37 times in 2003-04, and the lowest being 1.14 times in 2011-12. The ratio registered a fluctuating trend. It was 2.37 times in 2003-04, then after it decreased to 1.64 times in 2006-07. Again it increased and indeed it reached at 2.09 times in 2007-08. The average turns out to be 1.721 times. Notably in four years (2003-04, 2004-05, 2005-06, 2007-08) during the study the ratio above the standard norms. It shows a good working capital and solvency position of the Amul dairy but in remaining years the fact that the current Solvency position of this year’s were not as good as compared the above four years.

**Sumul Dairy**

In Sumul Dairy the current assets and current liabilities recorded a fluctuating tendency during the period of the study. Similar was the trend of the ratio which varied from 0.75 in 2009-10 to 1.54 times in 2012-13. The current ratio of Sumul Dairy was always less than the standard norms. The average ratio of Sumul Dairy was 1.19 times.

**Vasudhara Dairy**

In Vasudhara Dairy the current assets and current liabilities recorded a progressive and fluctuating trend during the study period. The ratio was higher than the norms of 2:1 in 2007-08, 2011-12 and 2012-13, but the average of ratio Vasudhara Dairy was less than the norms (1.906 Times). The highest ratio was 2.75 times in 2011-12 and the lowest ratio was 1.25 times in 2008-09. The average ratio of Vasudhara Dairy was 1.906 times.

**Sabar Dairy**

During the study period the current ratio of Sabar Dairy varied in a wide range of 4.42 times in 2010-11, and the lowest being 1.06 times in 2009-10. The ratio registered a
fluctuating trend. It was 4.42 times in 2010-11, then after it decreased to 1.46 times in 2012-13. The average turns out to be 1.805 times. Notably in two years (2010-11, 2011-12) during the study the ratio above the standard norms.

Madhur Dairy

The current ratio of Madhur Dairy registered an increasing trend in first three years of the study period. It was 0.94 times in 2003-04 and reached 1.22 times in 2005-06. Then after continuously decrease and stopped with 0.83 times in 2009-10. The current ratio of Madhur Dairy was always less than the standard norms. The highest ratio was 1.22 times in 2005-06 and the lowest ratio was 0.68 times in 2012-13. The average ratio of Madhur Dairy was 0.964 times indicated low liquidity position of dairy units.

ANOVA TEST ON CURRENT RATIO

Null Hypothesis (Ho):

There is no any significant difference in current ratio of selected co-operative dairies.

Alternative Hypothesis (H1):

There is significant difference in current ratio of selected co-operative dairies.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f.</th>
<th>MS</th>
<th>F Value</th>
<th>F crit (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>16.0661</td>
<td>6</td>
<td>2.677683</td>
<td>6.0842</td>
<td>2.2464</td>
</tr>
<tr>
<td>Within Groups</td>
<td>27.72639</td>
<td>63</td>
<td>0.440101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43.79249</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The analysis showed the significant result. It can be seen from the table, that the calculated value of ‘F’ was found as 6.0842 while the table value of ‘F’ was 2.2464 at 5% level of significance. The calculated value of ‘F’ being greater than the table value ‘F’, the null hypothesis stood rejected and the alternative hypothesis accepted at 5% level of significance.

6.5.2 LIQUID RATIO

Liquid Ratio is necessary to overcome the limitation of the current Ratio. In current ratio Liquid position of concern is not said to be satisfactory if the current assets include stock which is outdated or out of fashion. Liquid ratio shows whether or not the concern is able pay its debts immediately when require. The liquid ratio is a more refined measure of the firm’s liquidity. This ratio establishes a relationship between liquid assets and liquid liabilities. The liquid ratio is found out by dividing the total of liquid assets by total of liquid liabilities. The Formula of liquid ratio is as follows.

\[
\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Liquid Liabilities}}
\]

Liquid Assets includes Cash and book debt (Debtors and bills receivable) only. Inventories are excluded, because it takes time to sell finished goods and convert raw materials and work -in- progress in to finished goods. Prepaid expenses should also be excluded because they cannot convert into cash. Liquid liabilities include all the current liabilities excluding bank overdraft.

It is commonly held that liquid ratio should be 1:1. If this ratio is less than 1:1 i.e., liquid assets are less than the liquid liability the financial position of the concern shall be deemed to be unsound and real cash will have to be provided for the payment of liabilities. On the other hand, if the ratio is more than the 1:1, it can be summarized that financial condition of the enterprise is sound and good.
### Table No. 6.2.A

#### Liquid Ratio of the Dairy Units under Study
(From 2003-04 to 2012-13)

<table>
<thead>
<tr>
<th>Year</th>
<th>Dudhsagar Dairy</th>
<th>Gopal Dairy</th>
<th>Amul Dairy</th>
<th>Sumul Dairy</th>
<th>Vasudhara Dairy</th>
<th>Sabar Dairy</th>
<th>Madhur Dairy</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>0.81</td>
<td>0.95</td>
<td>1.70</td>
<td>0.76</td>
<td>1.36</td>
<td>1.02</td>
<td>0.82</td>
<td>1.0600</td>
</tr>
<tr>
<td>2004-05</td>
<td>0.57</td>
<td>0.99</td>
<td>1.37</td>
<td>0.61</td>
<td>1.25</td>
<td>0.35</td>
<td>0.84</td>
<td>0.8542</td>
</tr>
<tr>
<td>2005-06</td>
<td>0.87</td>
<td>1.11</td>
<td>1.04</td>
<td>0.65</td>
<td>1.43</td>
<td>0.55</td>
<td>1.07</td>
<td>0.9600</td>
</tr>
<tr>
<td>2006-07</td>
<td>1.30</td>
<td>0.84</td>
<td>0.89</td>
<td>0.60</td>
<td>0.80</td>
<td>0.82</td>
<td>1.09</td>
<td>0.9057</td>
</tr>
<tr>
<td>2007-08</td>
<td>0.96</td>
<td>1.07</td>
<td>0.95</td>
<td>0.76</td>
<td>1.64</td>
<td>0.43</td>
<td>0.84</td>
<td>0.9500</td>
</tr>
<tr>
<td>2008-09</td>
<td>1.26</td>
<td>0.87</td>
<td>0.53</td>
<td>0.81</td>
<td>1.12</td>
<td>0.81</td>
<td>0.82</td>
<td>0.8885</td>
</tr>
<tr>
<td>2009-10</td>
<td>2.42</td>
<td>0.93</td>
<td>0.73</td>
<td>0.69</td>
<td>1.05</td>
<td>0.89</td>
<td>0.59</td>
<td>1.0428</td>
</tr>
<tr>
<td>2010-11</td>
<td>3.58</td>
<td>0.48</td>
<td>0.76</td>
<td>0.65</td>
<td>1.36</td>
<td>1.57</td>
<td>0.73</td>
<td>1.3042</td>
</tr>
<tr>
<td>2011-12</td>
<td>3.95</td>
<td>0.82</td>
<td>0.54</td>
<td>0.56</td>
<td>1.50</td>
<td>3.19</td>
<td>0.50</td>
<td>1.5800</td>
</tr>
<tr>
<td>2012-13</td>
<td>1.56</td>
<td>0.84</td>
<td>0.44</td>
<td>0.75</td>
<td>1.65</td>
<td>0.72</td>
<td>0.52</td>
<td>0.9257</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17.28</strong></td>
<td><strong>8.90</strong></td>
<td><strong>8.95</strong></td>
<td><strong>6.84</strong></td>
<td><strong>13.16</strong></td>
<td><strong>10.35</strong></td>
<td><strong>7.82</strong></td>
<td><strong>10.471</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>1.728</td>
<td>0.89</td>
<td>0.895</td>
<td>0.684</td>
<td>1.316</td>
<td>1.035</td>
<td>0.782</td>
<td>1.0471</td>
</tr>
</tbody>
</table>

**Source:** Computed from Published Annual Reports of the respective Dairy Units

#### Chart No. 6.2

Liquid Ratio of the Dairy Units under Study
**Dudhsagar Dairy**

Table no.6.2.A indicated a progressive and fluctuating trend in the liquid ratio of Dudhsagar Dairy. The ratio was higher than the norms of 1:1 in 2006-07 and 2008-09 to 2012-13. The average of this ratio was more than the norms (1.728 Times). The highest ratio was 3.95 times in 2011-12 and the lowest ratio was 0.57 times in 2004-05. The average ratio of Dudhsagar Dairy was highest among all the Dairy Units.

**Gopal Dairy**

On the basis of table no.6.2.A it can be said that the liquid ratio of Gopal Dairy registered an increasing in first three years of study period. Than after ups and downs trend in 2006-07 to 2012-13. The highest ratio was 1.11 times in 2005-06 and the lowest ratio was 0.48 times in 2010-11. The liquid ratio was always less than its standard norms during the period except year 2005-06. The average turns out to be 0.89 times.

**Amul Dairy**

In Amul Dairy, the liquid ratio registered a fluctuating trend through the period under the study. The ratio was 1.7 times in 2003-04 decreasing in first four years and reached to 0.89 times in 2006-2007. It further declined to 0.44 times in 2012-13. The highest ratio was 1.70 times in 2003-04 and the lowest ratio was 0.44 times in 2012-13. The liquid ratio was always less than its standard norms during the period except first two years. The average of Amul Dairy was 0.895 times.

**Sumul Dairy**

In Sumul Dairy the liquid assets and liquid liabilities recorded a fluctuating trend during the period of the study. The highest ratio was 0.81 times in 2008-09 and the lowest ratio was 0.56 times in 2011-12. The liquid ratio of Sumul Dairy was always less than the standard norms. The average ratio of Sumul Dairy was 0.684 times.
Vasudhara Dairy

The liquidity position of Vasudhara can be said too very sound. The ratio was always more than its standard norms during the period except year 2006-07. To add further, the average liquid ratio (1.316) of the Vasudhara Dairy was the second highest among all the dairy units. The highest ratio was 1.65 times in 2012-13 and the lowest ratio was 0.8 times in 2006-07. The average ratio of Vasudhara Dairy was 1.316 times.

Sabar Dairy

During the study period the liquid ratio of Sabar Dairy varied in a wide range of 3.19 times in 2011-12, and the lowest being 0.35 times in 2004-05. The ratio registered a fluctuating trend. It was 1.02 times in 2003-04, and then after it decreased to 0.89 times in 2009-10 and further it was increased to 3.19 times in 2011-12. The average ratio of Sabar Dairy was 1.035 times.

Madhur Dairy

The liquid ratio of Madhur Dairy registered an increasing trend in first four years of the study period. It was 0.82 times in 2003-04 and reached 1.09 times in 2006-07. Then after continuously ups and down trend and stopped with 0.52 times in 2012-13. The liquid ratio of Madhur Dairy was always less than the standard norms except 2005-06 and 2006-07. The highest ratio was 1.09 times in 2006-07 and the lowest ratio was 0.50 times in 2011-12. The average ratio of Madhur Dairy was lowest among all the Dairy Units. The average ratio of Madhur Dairy was 0.782 times.

ANOVA TEST ON LIQUID RATIO

Null Hypothesis (Ho):

There is no any significant difference in liquid ratio of selected co-operative dairies.
**Alternative Hypothesis (H1):**

There is significant difference in liquid ratio of selected co-operative dairies.

**Table No. 6.2.B**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f.</th>
<th>MS</th>
<th>F Value</th>
<th>F crit (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>7.860129</td>
<td>6</td>
<td>1.310021</td>
<td>3.7906</td>
<td>2.2464</td>
</tr>
<tr>
<td>Within Groups</td>
<td>21.7723</td>
<td>63</td>
<td>0.345592</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>29.6324</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The analysis showed the significant result. It can be seen from the table, that the calculated value of ‘F’ was found as 3.7906 while the table value of ‘F’ was 2.2464 at 5% level of significance. The calculated value of ‘F’ being greater than the table value ‘F’, the null hypothesis stood rejected and the alternative hypothesis accepted at 5% level of significance.

6.5.3 ACID TEST RATIO/ QUICK RATIO

Quick Ratio or Acid Test establishes a relationship between quick assets and quick liabilities. The quick ratio is a more refined measure of the firm’s liquidity. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of value. Cash is the most liquid asset. Formula of quick ratio is as follows:

\[
\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}}
\]

In Quick Ratio Quick Assets means Cash, bank, and immediate sales able securities are all included but Stock and Debtors are not included. In Liquid liabilities include all the current liabilities excluding bank overdraft.

Generally a quick ratio of 1:1 is considered to represent a satisfactory current financial condition. If the ratio is more than 1:1 it can be summarized that the financial condition
of the enterprise is sound and good. The below table represents the quick ratio of the Dairy Units under study:

Table No. 6.3.A
Quick Ratio of the Dairy Units under Study
(From 2003-04 to 2012-13)

<table>
<thead>
<tr>
<th>Year</th>
<th>Dudhsagar Dairy</th>
<th>Gopal Dairy</th>
<th>Amul Dairy</th>
<th>Sumul Dairy</th>
<th>Vasudhara Dairy</th>
<th>Sabar Dairy</th>
<th>Madhur Dairy</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>0.42</td>
<td>0.22</td>
<td>0.84</td>
<td>0.57</td>
<td>0.21</td>
<td>0.75</td>
<td>0.58</td>
<td>0.5128</td>
</tr>
<tr>
<td>2004-05</td>
<td>0.01</td>
<td>0.13</td>
<td>0.28</td>
<td>0.35</td>
<td>0.27</td>
<td>0.31</td>
<td>0.43</td>
<td>0.2542</td>
</tr>
<tr>
<td>2005-06</td>
<td>0.25</td>
<td>0.17</td>
<td>0.16</td>
<td>0.42</td>
<td>0.26</td>
<td>0.13</td>
<td>0.65</td>
<td>0.2914</td>
</tr>
<tr>
<td>2006-07</td>
<td>0.82</td>
<td>0.25</td>
<td>0.31</td>
<td>0.37</td>
<td>0.13</td>
<td>0.28</td>
<td>0.66</td>
<td>0.4028</td>
</tr>
<tr>
<td>2007-08</td>
<td>0.20</td>
<td>0.12</td>
<td>0.24</td>
<td>0.56</td>
<td>0.39</td>
<td>0.07</td>
<td>0.38</td>
<td>0.2800</td>
</tr>
<tr>
<td>2008-09</td>
<td>1.00</td>
<td>0.15</td>
<td>0.12</td>
<td>0.6</td>
<td>0.37</td>
<td>0.55</td>
<td>0.46</td>
<td>0.4642</td>
</tr>
<tr>
<td>2009-10</td>
<td>1.89</td>
<td>0.22</td>
<td>0.26</td>
<td>0.47</td>
<td>0.31</td>
<td>0.79</td>
<td>0.44</td>
<td>0.6257</td>
</tr>
<tr>
<td>2010-11</td>
<td>2.82</td>
<td>0.38</td>
<td>0.52</td>
<td>0.46</td>
<td>0.62</td>
<td>3.85</td>
<td>0.52</td>
<td>1.3100</td>
</tr>
<tr>
<td>2011-12</td>
<td>0.22</td>
<td>0.36</td>
<td>0.10</td>
<td>0.31</td>
<td>0.77</td>
<td>2.71</td>
<td>0.33</td>
<td>0.6857</td>
</tr>
<tr>
<td>2012-13</td>
<td>0.06</td>
<td>0.10</td>
<td>0.03</td>
<td>0.32</td>
<td>0.50</td>
<td>0.09</td>
<td>0.31</td>
<td>0.2014</td>
</tr>
<tr>
<td>Total</td>
<td>7.69</td>
<td>2.10</td>
<td>2.86</td>
<td>4.43</td>
<td>3.83</td>
<td>9.53</td>
<td>4.76</td>
<td>5.0280</td>
</tr>
<tr>
<td>Average</td>
<td>0.769</td>
<td>0.21</td>
<td>0.286</td>
<td>0.443</td>
<td>0.383</td>
<td>0.953</td>
<td>0.476</td>
<td>0.5028</td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective Dairy Units.
Dudhsagar Dairy

During the study period the quick ratio of Dudhsagar dairy varied in a wide range of 2.82 times in 2010-11, and the lowest being 0.01 times in 2004-05. The ratio registered a fluctuating trend. It was 0.42 times in 2003-04, then after it decreased to 0.20 times in 2007-08. Again it increased and indeed it reached at 2.82 times in 2010-11. The average turns out to be 0.769 times.

Gopal Dairy

In Gopal Dairy the Quick assets and Quick liabilities recorded a fluctuating tendency during the period of study. The quick ratio of Gopal dairy was always less than the standard norms. The highest ratio was 0.38 times in 2010-11 and the lowest ratio was 0.81 times in 2012-13. The average ratio of Gopal Dairy was 0.21 times.

Amul Dairy

In Amul Dairy, the Quick ratio registered a fluctuating trend through the period under the study. The ratio was 0.84 times in 2003-04 decreasing in first three years and reached to
0.16 times in 2005-2006. It further declined and reached 0.03 times in 2012-13. The highest ratio was 0.84 times in 2003-04 and the lowest ratio was 0.03 times in 2012-13. The Quick ratio was always less than its standard norms during the period. The average of Amul Dairy was 0.286 times.

**Sumul Dairy**

In Sumul Dairy, the Quick ratio registered a fluctuating trend during the period of the study. The highest ratio was 0.57 times in 2003-04 and the lowest ratio was 0.31 times in 2011-12. The quick ratio of Sumul Dairy was always less than the standard norms. The average ratio of Sumul Dairy was 0.443 times.

**Vasudhara Dairy**

In Vasudhara Dairy the Quick ratio recorded a fluctuating trend during the period of the study. The highest ratio was 0.77 times in 2011-12 and the lowest ratio was 0.13 times in 2006-07. The average ratio of Vasudhara Dairy was 0.383 times.

**Sabar Dairy**

During the study period the Quick ratio of Sabar Dairy varied in a wide range of 3.85 times in 2010-11, and the lowest being 0.07 times in 2007-08. The ratio registered a fluctuating trend. It was 3.85 times in 2010-11, then after it decreased to 0.09 times in 2012-13. The average turns out to be 0.953 times.

**Madhur Dairy**

In Madhur Dairy the Quick ratio recorded a fluctuating trend during the period of the study. The highest ratio was 0.66 times in 2006-07 and the lowest ratio was 0.31 times in 2012-13. The quick ratio of Madhur Dairy was always less than the standard norms. The average ratio of Sumul Dairy was 0.476 times.
ANOVA TEST ON QUICK RATIO

Null Hypothesis (Ho):
There is no any significant difference in quick ratio of selected co-operative dairies.

Alternative Hypothesis (H1):
There is significant difference in quick ratio of selected co-operative dairies.

Table No. 6.3.B
Analysis Of Variance (ANOVA) Test of Quick Ratio

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f.</th>
<th>MS</th>
<th>F Value</th>
<th>F crit (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.2429</td>
<td>6</td>
<td>0.7082</td>
<td>1.8906</td>
<td>2.2464</td>
</tr>
<tr>
<td>Within Groups</td>
<td>23.5744</td>
<td>63</td>
<td>0.3741</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27.8236</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The analysis showed the insignificant result. It can be seen from the above table, that the calculated value of ‘F’ was found as 1.8926 while the table value of ‘F’ was 2.2464 at 5% level of significance. The calculated value of ‘F’ being less than the table value ‘F’, the null hypothesis stood accepted and the alternative hypothesis rejected at 5% level of significance.
REFERENCES


12. Ibid., pp. 73-91.