

**A STUDY ON LIQUIDITY, PROFITABILITY AND  
WORKING CAPITAL MANAGEMENT OF CO-  
OPERATIVE DUDH SANGH**

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**Abstract:**

Working capital management involves the management and control of the gross current assets. Its effective management provision can do much more to the success of the business. Its inefficient management can lead not only to loss of profits but also to the downfall of a business. A study of working capital is of major importance to internal and external analysis because of its close relationship with the current day-to-day operations of a business. In the present competition, the business does not have any other option than cutting the cost of its operations in order to survive and continue to be financially healthy. It is in this connection, effective management of working capital forms an absolute part of cost reduction. This paper investigates the empirical relationship between liquidity, profitability and working capital in co-operative dudh sangh between 2009-2011.

**Keywords:** liquidity, profitability and Working Capital

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## 1. **Introduction:**

Every business needs funds for two purposes- for its establishment and to carry out its day-to-day operations. Long-term funds are required to create production facilities through purchase of fixed assets such as plant and machinery, land, building, furniture, etc. Investments in these assets represent that part of firm's capital, which is blocked on a permanent or fixed basis and is called Fixed Capital. Funds are also needed for short-term purposes for the purchase of raw materials, payment of wages and other day-to-day expenses, etc. these funds are known as Working Capital.

In simple words, working capital refers to that part of the firm's capital, which is required for financing short term or current assets such as cash, marketable securities, debtors and inventories. It is also known as revolving or circulating working capital or short-term capital. Working capital plays a vital role in any business firm whether it is a service firm, trading organization, or a manufacturing firm. It helps the business firm to run smoothly. A firm invests a part of its permanent capital in fixed assets and keeps a part of it for working capital, for meeting day to day requirements. A company invests its funds for long term and short term operations. The portion of company's capital invested in short term assets or current assets is used to run the day to day operations efficiently and effectively. The management of working capital is no less than long term investments. Efficient working capital management is necessary to maintain liquidity and profitability. If funds are tied up in idle current assets it indicates inefficient management which affects liquidity and profitability.

## 2. **Rationale of the study:**

The operation and performance of a business depend on many individual or collective decisions that are continually made by its management team. Every one of these decisions ultimately causes a financial impact for better or worse on the condition and the periodic results of the business. In essence, the process of managing involves a series of economic choices that activates movements of financial resources connected with the business

Some of the decisions management makes are major, such as investment in a new facility, raising large amounts of debt or adding a new line of products or services. Most other decisions are part of the day-to-day process in which every functional area of a business is managed. The combined

effect of all decisions can be observed periodically when the performance of the business is judged through working capital management

3. **Objectives of the study:**

To study the working capital management of dairy unit

To analysis the changes in working capital.

To analyze the liquidity, profitability of co-operative Dairy unit with the help of selected ratios

4. **Sources of data collection:**

The data required for the study was collected from Annual report of the organization , financial statements of the purticlar Sahakari Dudh Sangh for the period of 3 years. I.e. from 2009 to2011 Text book of the respected subject under study, Published magazines and bulletins relating to the respected industry.

5. **Limitation of the study:**

1. The study is limited to “Sangamner Taluka Sahakari Dudh Sangh Ltd. Sangamner and only three years financial statements are considered
2. Only Selected Ratios are used for analysis

6. **Literature Review:**

The purpose of this chapter is to present a review of literature relating to the working capital management

**Welter**, in his study (1970), stated that working capital originated because of the global delay between the moment expenditure for purchase of raw material was made and the moment when payment were received for the sale of finished product

**Chakraborty** (1973) approached working capital as a segment of capital employed rather than a mere cover for creditors. He emphasized that working capital is the fund to pay all the operating expenses of running a business. He pointed out that return on capital employed, an aggregate measure of overall efficiency in running a business, would be adversely affected by excessive working capital.

**Lambrix and Singhvi** (1979) adopting the working capital cycle approach to the working capital management, also suggested that investment in working capital could be optimized and cash flows could be improved by reducing the time frame of the physical flow from receipt of raw material to shipment of finished goods, *i.e.* inventory management, and by improving the terms on which firm sells goods as well as receipt of cash.

**Agarwal** (1983) also studied working capital management on the basis of sample of 34 large manufacturing and trading public limited companies in ten industries in private sector for the period 1966-67 to 1976-77. Applying the same techniques of ratio analysis, responses to questionnaire and interview the study concluded the although the working capital per rupee of sales showed a declining trend over the years but still there appeared a sufficient scope for reduction in investment in almost all the segments of working capital

**Vijaykumar and Venkatachalam** (1995) studied the impact of working capital on profitability in sugar industry in Tamil Nadu by selecting a sample of 13 companies; 6 companies in co-operative sector and 7 companies in private sector over the period 1982-83 to 1991-92. They applied simple correlation and multiple regression analysis on working capital and profitability ratios.

## 7. Interpretation & analysis:

Schedule of changes in working capital for the year ending 31/3/2009 to 31/3/2011

**Consolidated table shows the effect on working capital of**

**SANGAMNER TALUKA SAHAKARI DUDH SANGH, SANGAMNER**

Particulars	31/3/2009	31/3/2010	31/3/2011
<b><u>A) Current assets :</u></b>			
Cash & Bank Balance	3,59,59,773.85	1,48,99,212.64	1,18,85,051.83
Term Deposit	13,03,01,999.00	13,03,54,461.00	22,01,01,764.00
Advances	37,59,796.00	56,39,990.00	1,00,86,029.56
Other Receivable	1,70,85,264.63	3,00,64,406.29	4,06,03,433.46
<b>Current Assets</b>	<b>3,00,08,512.70</b>	<b>3,00,78,722.77</b>	<b>3,82,39,786.28</b>
Closing Stock	36,11,380.23	83,52,315.72	77,15,666.12
<b>Total of A</b>	<b>22,07,26,726.41</b>	<b>21,93,89,108.42</b>	<b>32,86,31,731.25</b>
<b><u>B) Current liability:</u></b>			
<b>Current Liabilities</b>	<b>20,44,77,776.56</b>	<b>16,64,54,356.87</b>	<b>25,32,72,458.10</b>
Payable Deposits	1,27,68,020.39	1,43,80,605.72	1,59,50,289.51
<b>Total of B</b>	<b>21,72,45,796.95</b>	<b>18,08,34,962.59</b>	<b>26,92,22,747.61</b>
<b><u>C) Working Capital (A-B)</u></b>	<b>34,80,929.46</b>	<b>3,85,54,145.83</b>	<b>5,94,08,983.64</b>

The Table shows working capital for last 3 years. The Working Capital increased in 2010 & further it increased in 2011 compared to 2009

### **Working capital ratios**

Working capital ratios indicate the ability of the business concern in meeting its current obligations as well as its efficiency in managing the current assets for generation of the sales. These ratios are applied as well as its efficiency with which the firm manages and utilizes its

current assets. The following three categories of ratios are used for the efficient management of the working capital:

**1) Liquidity ratios:-**

- i) Current ratio
- ii) Quick ratio

Liquidity ratios measure the extent to which the firm can meet its immediate obligations. They also reflect the firm's ability to meet financial contingencies that might arise.

**i) Current ratio :**

A current ratio of 2:1 is considered to do ideal. The ratio is an indicator of the firm's commitment to meet its short-term liabilities. It indicates the rupees of current assets available for each rupee of current liability. The higher current ratio the higher funds available for a rupee of current liabilities. As a convention rule a current ratio of 2:1 or more is considered satisfactory.

The higher current ratio indicates the higher funds available for a firm.

CURRENT RATIO:  $\frac{\text{Current assets}}{\text{Current liabilities}}$

2009	2010	2011
22,07,26,726.41	21,93,89,108.42	32,86,31,731.25
-----	-----	-----
217245796.95	180834962.59	269222747.61
1.02	1.22	1.23

(Source – Final Accounts Statement of Dudh Sangh)

**INTERPRITATION:**

As we know the ideal current ratio is 2:1. But actually Dudh Sangh having less current ratio as compare with ideal one. In year 2008-09. Dudh Sangh current ratio was 1.02 it has increased in 2009-10 and further it has slightly increased in 2010-11

ii) **Acid test /Quick Ratio :**

This ratio is a better tool to measure the ability to honor day-to-day commitments. It is the ratio between the liquid assets and liquid liabilities. From the balance sheet, liquid assets are calculated by deducting inventories and prepaid expenses from current assets, liquid liabilities less bank overdraft. the ideal liquid ratio is considered to be 1:1, which means the liquid current assets should be equal to the current liabilities, this ratio indicates whether the firm has the ability to pay its short-term liabilities or not.

➤ Liquid / Quick / Acid test ratio: Liquid current assets

Liquid liabilities

2009	2010	2011
21,91,48,938.31	21,65,67,702.62	32,60,07,167.75
-----	-----	-----
14,02,02,990.26	16,97,61,859.94	213626489.57
1.57	1.28	1.53

(Source – Final Accounts Statement of Dudh Sangh)

This ratio indicates the availability of quick assets to pay for current liabilities. It should be 1:1.as we computed on the basis of the study the acid test ratio as 1.57, 1.28, and 1.58 for the respected year as shown in graph. which is satisfactory.

2) **Profitability Ratios:**

i) Gross Profit ratio

ii) Net Profit Ratio

**i) Gross Profit ratio**

Gross Profit is the difference between sales and the cost of goods sold. Gross profit is critical because it represents the amount of money remaining to pay operating costs, financing costs, and taxes and to provide for profit. The gross profit margin is the amount of each rupee of sales left over after paying the cost of goods sold.

**Gross profit**

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

2008	2009	2010
5,22,09,101.53	5,84,20,213.58	6,76,29,202.78
----- X 100	----- X 100	----- X 100
1,03,07,75,471.75	1,26,36,93,431.72	1,52,63,92,920.12
<b>5.07%</b>	<b>4.63 %</b>	<b>4.44 %</b>

(Source – Final Accounts Statement of Dudh Sangh)

From the above table it has been observed that Gross Profit Ratio of Dudh Sangh is declining Continuously . It was 5.07%, 4.63%,and 4.44% respectively in 2008-09 2009-10 and 2010-2011

**ii) Net Profit ratio:**

Net profit ratio relates net profit to the firm's sales level. It indicates what per cent of every rupee of sales; the firm was able to convert into net profit. The net profit margin measures the profit that is available from each rupee of sales after all expenses have been paid, including cost of goods sold, selling, general, and administrative expenses, depreciation, interest and taxes. The formula is as follows:

Net profit (after taxes)

Net Profit ratio = ----- x 100

Net Sales

2009	2010	2010
7,49,882.86	7,53,060.44	7,70,204.56
----- X 100	----- X 100	----- X 100
1,03,07,75,471.75	1,26,36,93,431.72	1,52,63,92,920.12
0.08 %	0.06%	0.06 %

(Source – Final Accounts Statement of Dudh Sangh)

The above table shows us that Net profit of the sangh in 2008-09 was 0.08% but in last 2 years there is no change in net profit of sangh even though there is increase in sales of Sangh

**3) Performance Ratio:-**

- i) Working capital turnover ratio
- ii) Inventory Turnover Ratio

**i) Working capital turnover ratio:**

Ability to generate sales per rupee of fixed assets.

Net sales

Working capital turnover ratio = -----

Working capital

	2009	2010	2011
Working			

capital turnover ratio	1,03,07,75,471.75	1,26,36,93,431.72	1,52,63,92,920.12
	34,80,929.46	3,85,54,145.83	5,94,08,983.64
	29.82 Times	32.78 Times	25.70 Times

(Source – Final Accounts Statement of Dudh Sangh)

Above table shows us that working Capital Turnover Ratio of Sangh was high in 2010 compared to 2009 and 2011, it means there is better utilization of working capital in 2010.

The higher this ratio, the better is the utilization of the working capital and between two year ratio comparison a very high working capital turn over ratio is a sign over trading in 2009-2010 and firm may face shortage of working capital.

**ii) Inventory Turnover Ratios:-**

**Cost of Goods Sold**

$$\text{Inventory turnover ratio} = \frac{\text{Cost of Goods Sold}}{\text{Avg. Inventory During that particular Year}}$$

2009	2010	2011
49,32,188.93	1,12,32,373.83	1,83,66,310.05
32,38,632.33	59,81,847.98	80,33,990.92
1.53 Times	1.88 Times	2.29 Times

(Source – Final Accounts Statement of Dudh Sangh)

Above table shows that Inventory Turnover ratio is increasing continuously in 2009-10 and 2010-2011. Higher this ratio is better it is because it shows rapid turnover of stock & consequently shorter holding period. On the other hand, if this ratio is lower, it will indicate that stock is slow moving & there is a longer holding period. There is increase in the ratio probably because of expansion in milk packing capacity & acquisition of truck in the year 2010-2011 which ensured quick processing of milk & its distribution to dealers / consumers.

#### **8. FINDINGS & OBSERVATIONS:**

1. From the above Schedule of changes in working capital for the year ending 31/3/2009 to 31/3/2011 it is observed that from the year 2009, 2010 and 2011 the working capital amount shows increasing trend, that company has tried to make the best utilization of its working capital.
2. The higher working capital turnover ratio means, the better utilization of the working capital and between two year ratio comparison a very high working capital turnover ratio is a sign over trading in 2009-2010 and firm may face shortage of working capital.
3. The Dudh Sangh current ratio is fluctuating all the times. As ideal current ratio is 2:1 but at time of actual analysis shows that ratio is always less than the ideal one. This ratio moving around 1.02 to 1.23 Which indicate bad liquidity position.
4. In case of quick or acid test ratio the ideal ratio is 1:1 .As per actual analysis its maintained.
5. The gross profit and net profit ratio are very lows.

#### **9. SUGGESTIONS:**

1. The Dudh Sangh has to improve liquidity position by maintaining its current ratio as up to the mark i.e. 2:1. This is necessary for Dudh Sangh.
2. The Dudh Sangh should use the technique of efficient utilization of working capital i.e. cash management , management of receivables & inventory management

3. The Dudh Sangh has to do some serious efforts to reduce the current liabilities. By doing this Dudh Sangh can improve their current ratio & they get healthy financial position.
4. For improvement of the gross profit and net profit it is necessary to control the direct and indirect costs.

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