

## **CHAPTER IV**

### **PERFORMANCE EVALUATION OF THE DEVGAD TALUKA SAHAKARI KHAREDI VIKRI SANGH**

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- 4.1 Introduction
- 4.2 Trend Percentages
- 4.3 Ratio Analysis

## CHAPTER IV

### PERFORMANCE EVALUATION OF THE DTSKVS

#### 4.1 INTRODUCTION

This chapter mainly deals with the analysis and interpretation of financial data of Devgad Taluka Sahakari Kharedi Vikri Sangh Ltd., Devgad. The analysis of data consists of a study of relationships and trends to determine whether or not the financial position and results of operations as well as the financial progress of the Sangh is satisfactory or unsatisfactory. For the present study "Trend Percentages" and "Ratio Analysis" are used as devices to analyse the financial data.

#### Meaning of Trend Percentages

"A series of financial statements may be analysed by determining and studying the trends of the data shown in the statements. This method of analysis is one of direction - upwards or downwards - and involves the computation of the percentage relationship that each statement item bears to the same item in the 'base year' which may be the earliest year involved in the comparison or the latest year or any intervening year. Trend percentages, or relation to the base year, emphasize changes in the financial data from year to year and make possible a horizontal

study of the data. Also known as trend ratios, these percentages may be thought of as index numbers showing relative changes in the financial data resulting with the passage of time. " <sup>1</sup>

### Meaning of Ratio Analysis

Financial analysis depends on a large extent on the use of ratios though there are other equally important tools of such analysis. Ratio is simply one number expressed in terms of another. "In financial analysis, the relationship between two figures may be expressed as a rate, percent or as a quotient. Of these percentage is the most common popular one. Accounting ratio focusses attention on relationship which is significant" <sup>2</sup>. "An absolute figure often does not convey much meaning. Generally, it is only in the light of other information that the significance of a figure is realised" <sup>3</sup>.

### Types of Ratio

"Many ratios can be derived from the various figures in the position statements (Balance Sheet) and Income Statement. The specific needs of the user will determine the particular ratios that might be useful in each situation. Some of the ratios commonly used in financial analysis are as follows :

1) Position Statement Ratio or Balance Sheet Ratios :-

These deal with the relationship between two items which are both in the Balance Sheet. For example, Current Ratio, Quick Ratio, Stock Equity Ratio, Stock-Equity-Asset Ratio, etc.

2) Income Statement Ratio or Revenue Statement Ratio :-

These deal with the relationship of two items or group of items which are both localised in the Revenue Account. Examples include Operating Ratio, Gross Profit to Sales Ratio, Expense Ratio, etc.

3) Complex Ratio or Balance Sheet and Revenue

Statement Ratios :- These establish relationship between two figures, one of which is drawn from the balance sheet and the other from the revenue statement" <sup>4</sup>.

✓ Advantages of Ratio Analysis :- The ratio analysis of the financial statements and data has following advantages :

- i) It is possible to assess the liquidity, profitability, solvency and the efficiency of the enterprise through the technique of ratio analysis.
- ii) It helps the management in planning and forecasting.
- iii) It acts as an index of the efficiency of the concern & serves as management control instrument.

- iv) It helps the management in decision making.
- v) It summarises briefly the results of detailed and complicated computations.

✓ Limitations of Ratio Analysis :- In spite of the above mentioned advantages the technique has the following inherent disadvantages :

Ratio analysis is not a substitute for sound judgement. Rather it is helpful tool to aid in applying judgement to otherwise complex situations. However, there is some danger in depending solely on ratio analysis. The significance of individual ratios can be known only when considered in group over a period of time. Therefore, the most common practice is to study and interpret a set of several related ratios. Ratios compared from the single set of figures will not have much significance unless compared with the similar relationship of the past years. Ratios are only the means to reach conclusions and not conclusions in themselves. In general, they are clues, not bases for immediate conclusions. If too many ratios are calculated, they are likely to confuse instead of revealing meaningful conclusions. Ratios merely convey certain observations pointing to probabilities on matters needing investigation. "Generally single ratios are of limited value; this is so because these are of great importance" <sup>5</sup>.

4.2 TREND PERCENTAGES

Analysis of Balance Sheet Items of the DTSKVS :

The data about cash in hand and at bank, investments, debtors, stock in trade, fixed assets of the Sangh for the period of the five years from 1984-85 to 1988-89 are presented in Table 4.1. Taking 1984-85 as the base year, the percentage increase or decrease has been calculated for all the years.

The data about capital, reserve fund and other funds, creditors, outstanding liabilities of the Sangh for the period of the five years from 1984-85 to 1988-89 are presented in Table 4.2. Taking the year 1984-85 as the base year, the percentage increase or decrease has been calculated for all the years.

The data about sales, gross profits and net profits of the Sangh for the period of five years from 1984-85 to 1988-89 are presented in Table 4.3. Taking the year 1984-85 as the base year, the percentage increase or decrease has been calculated for all the years.

TABLE 4.1

**COMPARATIVE SELECTED ASSETS AS ON 30th JUNE (1985-89)**  
(Figures in Rs.)

ASSETS	1985	1986	1987	1988	1989
Cash in hand & at Bank	2,17,272.04 (100)	5,92,540.15 (272.72)	13,10,549.43 (603.18)	4,23,912.05 (195.11)	3,23,709.81 (148.99)
Investments	2,20,300.50 (100)	2,45,115.22 (111.26)	2,89,464.57 (131.40)	3,31,364.44 (150.41)	3,76,454.94 (170.89)
Debtors	32,45,628.27 (100)	28,12,017.28 (86.64)	21,47,946.43 (66.18)	11,49,733.81 (35.42)	29,89,700.09 (92.11)
Stock-in Trade	3,11,349.55 (100)	2,36,452.11 (75.94)	1,45,442.04 (46.71)	2,44,707.90 (78.60)	3,22,441.40 (103.56)
Fixed Assets	1,80,466.91 (100)	3,55,289.95 (196.87)	3,84,946.81 (213.31)	4,11,124.16 (227.81)	4,16,376.16 (230.72)

SOURCE : Annual Reports of DTSKVS (1984 -85 to 1988-89)

NOTE : The figures in the parantheses show the percentage to the base year (taken as 1984-85)

TABLE 4.2

**COMPARATIVE SELECTED LIABILITIES AS ON 30th JUNE (1985-89)**  
(Figures in Rs.)

LIABILITIES	1985	1986	1987	1988	1989
Capital	1,88,765.00 (100)	1,13,935.00 (60.36)	1,37,955.00 (73.09)	1,59,255.00 (84.37)	1,70,380.00 (90.26)
Reserve Fund & Other Funds	4,62,274.92 (100)	5,83,952.34 (126.32)	6,60,306.12 (142.84)	7,98,976.33 (172.84)	8,18,348.47 (177.03)
Creditors	32,17,336.53 (100)	29,94,178.20 (93.06)	28,50,644.25 (88.60)	11,23,409.45 (34.91)	30,48,429.28 (94.75)
Outstanding Liabilities	1,58,915.12 (100)	1,74,225.13 (109.63)	1,60,927.90 (101.27)	1,00,752.67 (63.40)	50,391.65 (31.71)

SOURCE : Annual Reports of the DISKVS (1984-85 to 1988-89)

NOTE : The figures in parentheses show the percentage to the base year (taken as 1984-85)



TABLE 4.3

**COMPARATIVE SALES, GROSS-PROFITS & NET-PROFITS**

(Figures in Rs.)

YEAR	SALES	GROSS-PROFIT	NET-PROFIT
1984-85	13,056,130.62	1,92,709.88	1,17,835.56
	(100)	(100)	(100)
1985-86	13,486,019.97	2,77,711.79	91,759.13
	(103.29)	(144.11)	(77.87)
1986-87	12,214,875.00	3,65,786.91	1,62,085.50
	(93.56)	(189.81)	(137.56)
1987-88	12,824,217.71	3,24,109.31	1,09,206.28
	(98.22)	(168.18)	(92.68)
1988-89	13,716,318.39	3,59,877.93	1,22,934.04
	(105.52)	(186.74)	9104.32)

SOURCE : Annual Reports of DTSKVS (1984-85 to 1988-89)

NOTE : Figures in brackets show the percentage over the base year 1984-85

:: Figures reported as on 30th June of every financial year

The analysis of the data reported in Tables 4.1, 4.2 and 4.3 calculated as trend percentages, reveals the following tendencies :

i) There has been a substantial reduction in the amount of sundry debtors and the trading stock. This, coupled with the fact that sales during the period 1984-85 to 1988-89 remained more or less constant. There is no substantial increase or decrease in the sales. Thus, reduction in the amount of debtors and in the trading stock represents a favourable tendency and points towards more effective credit collection and merchandising policies.

ii) As compared to the sales during the base year, sales during the years 1986-87 and 1987-88 decreased upto 93.56 percent and 98.22 percent respectively. But sales during the year 1988-89 is increased upto 105.52 percent. Thus, there is no substantial increase or decrease in the total sales.

iii) There has been a constant reduction in the amount of creditors and outstanding liabilities. As compared to the base year i.e. 1984-85, the amount of outstanding liabilities has decreased in the year 1988-89

upto 31.71 percent. This reduction in the amount of creditors and outstanding liabilities represents a favourable tendency and improvement in the current financial position of the Sangh.

iv) There has been a gradual increase in the amount of share capital over the period of four years i.e. from 1985-86 to 1988-89.

v) There has been a substantial increase in the amount of reserve fund and other reserves from 1984-85 to 1988-89. The main reason for such increase in the amount of reserves is the compulsion by the Government, through co-operative rules for creating reserves out of the profit earned.

vi) Fixed assets expansion has been substantial one. As compared to the base year i.e. 1984-85 fixed assets in the year 1988-89 are increased upto 230.72 percent. Similarly, there has been a constant increase in the amount of investments from 1984-85 to 1988-89.

vii) The trend of earned gross profit is definitely upwards - it has increased upto 186.74 percent in the year 1988-89 as compared to the base year 1984-85. But there has been no substantial increase in the amounts of net profits over the five years period i.e. from 1984-85 to 1988-89. The main reason for this is increase in the operating expenses.

4.3 RATIO ANALYSIS

In order to evaluate the performance of DTSKVS, the following accounting ratios are also worked out. These ratios are calculated on the basis of figures contained in the financial statements of the Sangh from 1984-85 to 1988-89.

A) Current Ratio

The current ratio is an indicator of the current liquidity of the organisation. It is a ratio of current assets to current liabilities of the concern. Current assets normally include cash in hand or at bank, marketable securities, other short term high quality investments, bills receivables, pre-paid expenses, work-in-progress, sundry debtors and inventories. While current liabilities are composed of sundry creditors, bills payable, outstanding expenses, income-tax payable, etc. Current ratio is computed as follows :

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

The ideal ratio is 2 : 1 i.e. current assets should be double of the current liabilities. Table 4.4 shows the current ratios of the Sangh from 1984-85 to 1988-89.

TABLE 4.4

**CURRENT RATIO OF SANGH ON THE BASIS OF FINANCIAL STATEMENTS**

YEAR	CURRENT ASSETS	CURRENT RATIO
	CURRENT LIABILITIES	
1984-85	3,809,822.22	1.13 : 1
	3,376,251.65	
1985-86	3,702,619.25	1.17 : 1
	3,168,403.33	
1986-87	3,641,172.36	1.21 : 1
	3,011,572.15	
1987-88	1,857,556.87	1.52 : 1
	1,224,162.12	
1988-89	3,647,552.63	1.18 : 1
	3,098,820.93	

SOURCE : Annual Reports of DTSKVSL, Devgad (1984-85 to 1988-89)

From the data contained in the above table, it is clear that though the Sangh fails to reach the ideal current ratio which is 2 : 1, there has been almost a constant improvement in the current ratio from 1984-85 to 1988-89. It represents the improvement in the current financial position of the Sangh. The

current ratio for the year 1987-88 is 1.52 : 1, which is highest as compared to the current ratios for the other years under study. On the basis of the analysis made with the help of current ratio, it is clear that the Sangh is required to increase the amount of working capital to reach the ideal current ratio. The Sangh purchases chemical fertilizers, from Rashtriya Chemicals and Fertilizers, Rallies India Limited; Bombay, Maharashtra Agro-industrial Development Corporation on credit basis. Such credit purchases of chemical fertilizers on large scale is the main reason for low current ratio and increased amount of creditors.

B) Quick Ratio or Acid Test Ratio

The Quick Ratio or Acid Test Ratio indicates the relation of quick assets and quick liabilities. This ratio is also known as 'liquid ratio'. Normally, the liquid ratio should be 1 : 1. Liquid assets would include cash, debtors after providing for bad and doubtful debts and securities which can be realised without difficulty. Liquid liabilities refer to current liabilities less bank overdrafts, i.e. creditors, bills payable and outstanding or accrued expenses. Inventories are not included in current assets for the purpose of computation of this ratio and is computed as follows :

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

Table 4.5 shows quick ratios on the basis of the financial statements of the Sangh from 1984-85 to 1988-89.

TABLE 4.5

**QUICK RATIO OF SANGH**

YEAR	<u>QUICK CURRENT ASSETS</u> <u>CURRENT LIABILITIES</u>	QUICK RATIO
1984-85	$\frac{3,498,472.67}{3,376,251.15}$	1.04 : 1
1985-86	$\frac{3,466,167.14}{3,168,403.33}$	1.09 : 1
1986-87	$\frac{3,495,730.34}{3,011,572.15}$	1.16 : 1
1987-88	$\frac{1,610,148.97}{1,224,162.12}$	1.32 : 1
1988-89	$\frac{3,325,111.23}{3,098,820.93}$	1.07 : 1

SOURCE : Annual Reports of DTSKVSL (1984-85 to 1988-89)

The analysis of data contained in the above table and quick ratio for the years from 1984-85 to 1988-89 indicates that the liquidity ratio has been increased over the period of five years i.e. from 1984-85 to 1988-89, which is good sign from the point of

solvancy. But the ratio is more than satisfactory, as it should be normally 1 : 1. The liquidity ratio for the year 1987-88 is high as compared to the liquidity ratio of remaining years under study. The main reason for high liquidity ratio is the low investment in the inventories. The Sangh's investment in inventories remained low as compared to the investments in other current assets of the firm. Thus, Sangh's current financial position is quite satisfactory and it can meet its short term debts out of short term assets.

C) Proprietary Ratio

Proprietary ratio or capital ratio is the ratio of the proprietors' funds to total assets. This is also called as the 'Equity Ratio'. The formula for this ratio may be written as follows :

$$\text{Proprietary Ratio} = \frac{\text{Owners' Funds}}{\text{Total Funds}}$$

Owners' funds means the sum of the paid-up equity share capital plus proprietary reserves (reserves on revenue account like general reserves and profit and loss account, credit balance and reserves on capital account i.e. capital reserves). Total funds mean the total of the rupee value of the liabilities side of the balance sheet. Thus, total funds imply the sum of the ownership capital and creditorship capital. The contribution of the owners is regarded as the financial base or backbone or foundation of an



enterprise. The ratio, therefore, gives an idea of the stability of the enterprise. Needless to mention, the stability of an enterprise is functionally related to its foundation. The arithmetic of the formula suggests that the ratio will always be less than or equal to 1. Obviously, it should not exceed one. When the ratio approaches unity, it indicates that the owners' stake in the business is on the increase.

Table 4.6 shows the proprietary ratios calculated on the basis of figures contained in the financial statements of the Sangh from 1984-85 to 1988-89.

The following conclusions are derived from the proprietary ratio of the Sangh :

i) Owners' share in the total funds has been increasing from 1985-86 to 1988-89, which is a good sign from long term solvency point of view.

ii) The Sangh invested large amount of creditorship capital as compared to ownership capital for conducting the activities of the Sangh over the period of study.

iii) Being a co-operative organisation, it is relatively easy for the Sangh to collect and invest the creditorship capital.

TABLE 4.6

PROPRIETARY RATIO OF DTSKVS

YEAR	OWNERS' FUNDS	PROPRIETARY RATIO
	TOTAL FUNDS	
1984-85	7,68,875.48	0.18 : 1
	4,210,589.59	
1985-86	7,89,646.47	0.18 : 1
	4,303,024.42	
1986-87	9,60,346.62	0.22 : 1
	4,315,583.74	
1987-88	1,067,437.61	0.41 : 1
	2,600,045.47	
1988-89	1,111,662.51	0.25 : 1
	4,440,283.73	

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

iv) Shareholders contribution to the total funds is low. The main reason for this contribution is that the face value of the shares issued by the Sangh is very low and limited membership.

v) The increment in the proprietary ratio is due to the creation of reserve funds and other funds from the profit earned by the Sangh each year. There has been no significant increase in the amount of share capital from 1984-85 to 1988-89. The amount

of share capital remained more or less constant over the period of last five years.

D) Stock - Turnover Ratio


"The stock - turnover ratio, also known as the inventory - turnover ratio, is defined as the ratio of goods sold to inventory. Or it may be also defined as the cost of goods sold divided by the average stock" <sup>6</sup>. A higher ratio suggests efficient business activity while a lower ratio suggests that some steps should be taken to push up the sales. Stock - turnover can be calculated with the help of the following formulae :

$$\text{Stock - Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Stock}}$$

$$\text{Stock - Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$$

Theoretically, inventory - turnover rate is best expressed through the relationship between cost of goods sold and average inventory at cost but ratio of sales to inventory may be used as a substitute for the ratio of cost of goods sold to average inventory, in case the cost of goods sold is not available. For calculating this ratio the amount of the finished stock is arrived at by adding the stocks at the beginning and at the end and dividing by 2. This will give us the figure of average inventory. "For any organisation, the size of inventory should be optimum" <sup>7</sup>.

Inventory - turnover ratio is used for measuring profitability of the business organisation. Inventory - turnover ratio is, generally, expressed as a 'times'. This ratio is an indication of the velocity with which merchandise move through the business. An inventory - turnover ratio, standing by itself, means absolutely nothing, because there are no fixed norms for inventory turnover which depends greatly on the nature of the business and on the sale policies adopted by the concern. Table 4.7 shows the inventory - turnover ratios calculated on the basis of figures contained in the financial statements of the Sangh from 1984-85 to 1988-89.



On the basis of financial data contained in the Table 4.7 below, and the stock - turnover ratios from 1984-85 to 1988-89 help the researcher to draw some conclusions. The stock - turnover ratio for each year under study is too high. The rate of inventory turnover is more than satisfactory the rate of stock - turnover. The very low investment in the inventory for each year as compared to sales is the main reason for this high rate of stock - turnover. There is high demand from the Alphanso mango cultivators in the operational area of the Sangh for all types of chemical fertilizers, i.e. nitrogenous, phosphatic, potassic and granulated fertilizers. The Sangh is always in a position to meet this high demand for chemical fertilizers which enables the Sangh in increasing the sale of chemical fertilizers. Similarly, there is ready and continuous supply of cement from Narmada Cement Company, chemical fertilizers

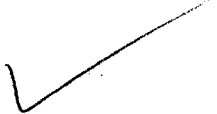


TABLE 4.7

STOCK - TURNOVER RATIO OF THE SANGH

YEAR	NET SALES	STOCK-TURNOVER RATIO
	AVERAGE STOCK	
1984-85	$\frac{13,056,130.62}{2,10,485.31}$	62.02 Times
✓ 1985-86	$\frac{13,486,019.97}{2,73,900.83}$	49.23 Times
1986-87	$\frac{12,214,875.00}{1,90,947.07}$	63.97 Times
1987-88	$\frac{12,824,217.71}{1,96,424.97}$	65.29 Times
1988-89	$\frac{13,716,318.39}{2,84,924.65}$	48.14 Times

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

from Rashtriya Chemicals and Fertilizers, Rallies India Limited, and Maharashtra Agro-industrial Development Corporation. This continuous supply of cement and chemical fertilizers enables the Sangh in conducting its selling activities with minimum stock on hand.

E) Turnover to Total Asstes Ratio

Investment in assets is made for the ultimate purpose of conducting business activities and increasing sales. So far co-operative organisation is concerned, investment in assets is made for the purpose of providing better services to its members with minimum profits to the organisation. Therefore, ratio of sales to total assets is an important measure of the efficiency of the concern. Higher the ratio, greater is the intensive utilisation of assets. Low ratio means the under utilisation of assets. The ratio also indicates the over-trading or under-trading. If the ratio is too high, it indicates overtrading and vice-versa. Turnover to total assets ratio is calculated with the help of following formula

$$\text{Turnover to Total Assets Ratio} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

Table 4.8 shows the turnover to total assets ratio calculated on the basis of figures contained in the financial statements of the Sangh from 1984-85 to 1988-89.

Analysis of the financial data contained in the Table 4.8 indicates that the turnover to total assets ratios of the Sangh is satisfactory. Turnover to total assets ratio for the year 1987-88 is quite high, which is 4.93 times. The main reason for this high ratio is the low investment made by the Sangh in current assets.

TABLE 4.8

**TURNOVER TO TOTAL ASSETS RATIO**

YEAR	NET SALES	TURNOVER TO TOTAL ASSETS RATIO
	TOTAL ASSETS	
1984-85	<u>13,056,130.62</u> 4,210,589.59	3.10 Times
✓ 1985-86	<u>13,486,019.97</u> 4,303,024.42	3.13 Times
1986-87	<u>12,214,875.00</u> 4,315,583.74	2.83 Times
1987-88	<u>12,824,217.71</u> 2,600,045.47	4.93 Times
1988-89	<u>13,716,318.39</u> 3,701,466.17	3.70 Times ✓

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

This ratio for the year 1986-87 is relatively low due to decrease in the amount of total sales for the said year. Turnover to total assets ratios from 1984-85 to 1988-89 indicate that the Sangh is utilising its assets more efficiently. The supply of chemical fertilizers from the Maharashtra Agro-Industrial Development Corporation under the godown scheme is one of the main reasons for this high turnover to total assets ratio. Under this

scheme, the Sangh obtains fertilizers from the Maharashtra Agro-industrial Development Corporation without any advance payment for the same. This scheme enables the Sangh in Keeping low investment in current assets.

F) Turnover to Fixed Assets Ratio

This ratio measures the efficiency with which a concern is utilising its investment in fixed assets. This serves as a secondary test of the adequacy of sales volume. As fixed assets are acquired to increase the sales volume and to provide better services, the efficiency in the utilisation of assets must be measured by reference to sales activity. This serves as a good indication of the concern's utilisation of its investment in fixed assets. Turnover to fixed assets ratio is calculated with the help of following formula :

$$\text{Turnover to Fixed Assets Ratio} = \frac{\text{Net Sales}}{\text{Fixed Assets}}$$

Table 4.9 shows the turnover to fixed assets ratios computed on the basis of figures contained in the financial statements of the Sangh from 1984-85 to 1988-89. It is clear from the table that the ratio of turnover to fixed assets is very high for each year under study. This ratio is too high for the year 1984-85 which is 72.34 times. The main reason for the high turnover to



TABLE 4.9

TURNOVER TO FIXED ASSETS RATIO

YEAR	NET SALES	TURNOVER TO FIXED ASSETS RATIO
	FIXED ASSETS	
1984-85	13,056,130.62 1,80,466.91	72.34 Times
1985-86	13,486,019.97 3,55,289.95	37.95 Times
1986-87	12,214,875.00 3,84,946.81	31.95 Times
1987-88	12,824,217.71 4,11,124.16	31.19 Times
1988-89	13,716,318.39 4,16,376.16	32.94 Times

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

fixed assets ratio is the low investment in the fixed assets of the Sangh. DTSKVS is a co-operative trading organisation and not a manufacturing organisation. As it is a trading organisation, it is possible for the Sangh to conduct the trading activities with low investment in the fixed assets. Similarly, the Sangh does not have its own building for conducting its business. Today, the business

of the Sangh is conducted in the premises acquired on the rental basis, except owned warehouse at Jamsande to store chemical fertilizers and cement.

On the basis of turnover to fixed assets ratio, the researcher comes to the conclusion that, the Sangh has enough scope for investing its funds in fixed assets.

G) Equity - Debt Ratio

The main purpose of calculating the equity - debt ratio is to determine the relative stakes of outsiders and shareholders. Normally, for trading concern the ratio should be 1 : 1. But higher the interests of the shareholders as compared to the outsiders' capital, the sounder would be the financial structure of the organisation. It is calculated as follows :

$$\text{Equity - Debt Ratio} = \frac{\text{Owners Equity}}{\text{Debt}}$$

Debt capital includes all long term and short term loans. From the point of long term solvency, the greater the proportion of owners' capital, the less worry the organisation has in meeting its debt obligations. Debt capital is risky because if external liabilities are not paid promptly, they can take legal action to obtain payment. Thus, in the analysis of long term financial condition of

TABLE 4.10

EQUITY - DEBT RATIO

YEAR	<u>OWNERS EQUITY</u> <u>DEBT</u>	EQUITY - DEBT RATIO
1984-85	<u>7,68,875.48</u> 3,441,714.11	0.22 : 1
1985-86	<u>7,89,646.47</u> 3,513,377.95	0.23 : 1
1986-87	<u>9,60,342.62</u> 3,355,237.12	0.29 : 1
1987-88	<u>1,067,437.61</u> 1,532,607.86	0.69 : 1
1988-89	<u>1,111,662.51</u> 3,328,621.22	0.33 : 1

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

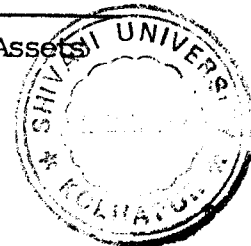
a business, the ratio enjoys the same importance as the current ratio in the analysis of short term financial position. The interpretation of the ratio, however, depends almost entirely on the financial condition and business policy of the enterprise. Table 4.10 above shows the equity - debt ratios calculated on the basis of data contained in the financial statements from 1984-85 to 1988-89.

The analysis of the financial data contained in the Table 4.10 and equity - debt ratio from 1984-85 to 1988-89 reveals that the external liabilities of the Sangh are more than the shareholders equity in the financial or capital structure of the organisation. For the year 1984-85 and 1985-86 equity - debt ratio is very low. From 1984-85 to 1988-89 there is substantial increase in the number of members of the Sangh and in the amount of share capital. The improvement in the ratio from the year 1985-86 to 1988-89 is mainly due to the increase in the amount of reserve fund and other funds. Following the rules for creating reserves by the co-operative organisations, the Sangh creates reserve funds and other funds from the profits earned by it every year. The Sangh, being a co-operative organisation, is required to keep the face value of its share low which adversely affects on the amount of paid capital and owners equity.

H) Ratio of Fixed Assets to Current Assets

Ratio of fixed assets to current assets signifies whether the fixed assets are being satisfactorily utilised by the organisation. This is very useful when compared to the similar organisation. This will indicate the proportion of investments in fixed assets and current assets. It is calculated with the help of following formula :

$$\text{Fixed Assets to Current Assets} = \frac{\text{Fixed Assets}}{\text{Current Assets}}$$



As compared to the investment in current assets, the investment in the fixed assets should be low, i.e. investment in fixed assets should be maintained as low as possible. Table 4.11 shows the ratios of fixed assets to current assets calculated on the basis of figures contained in the financial statements of the Sangh from 1984-85 to 1988-89.

TABLE 4.11

**FIXED ASSETS TO CURRENT ASSETS RATIO**

YEAR	FIXED ASSETS CURRENT ASSETS	FIXED ASSETS TO CURRENT ASSETS RATIO
1984-85	$\frac{1,80,466.91}{3,809,822.22}$	0.047 : 1
1985-86	$\frac{3,55,289.95}{3,702,619.25}$	0.095 : 1
✓ 1986-87	$\frac{3,84,946.81}{3,641,172.36}$	0.110 : 1
1987-88	$\frac{4,11,124.16}{1,857,556.87}$	0.220 : 1
1988-89	$\frac{4,16,376.16}{3,647,552.63}$	0.110 : 1

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

From the data contained in the Table 4.11 and ratios of fixed assets to current assets, it is clear that the investment made by the Sangh in fixed assets is very low as compared to the investment in the current assets. This ratio indicates that the Sangh is conducting its activities with very low investment in fixed assets. During the year 1987-88 investment in current assets has decreased which resulted in the improvement of fixed assets to current assets ratio.

I) Shareholders' Equity to Fixed Assets Ratio ✓

The purchase of fixed assets should be financed by shareholders' equity including reserves and other retained earnings. Shareholders' equity to fixed assets ratio should be at least 1:1. Coverage of fixed assets by shareholder's equity is a good test of long term solvency. If fixed assets are more than the shareholder's equity, it shows that some fixed assets are financed out of borrowed capital and any withdrawal of capital by outsiders will put the organisation in difficulty. This ratio is calculated as follows :

$$\text{Share Holders' Equity to Fixed Assets Ratio} = \frac{\text{Shareholders Equity}}{\text{Fixed Assets}}$$

Table 4.12 shows the shareholders' equity to fixed assets ratios calculated on the basis of figures contained in the financial statements of the Sangh from 1984-85 to 1988-89.

TABLE 4.12

SHAREHOLDERS' EQUITY TO FIXED ASSETS RATIO

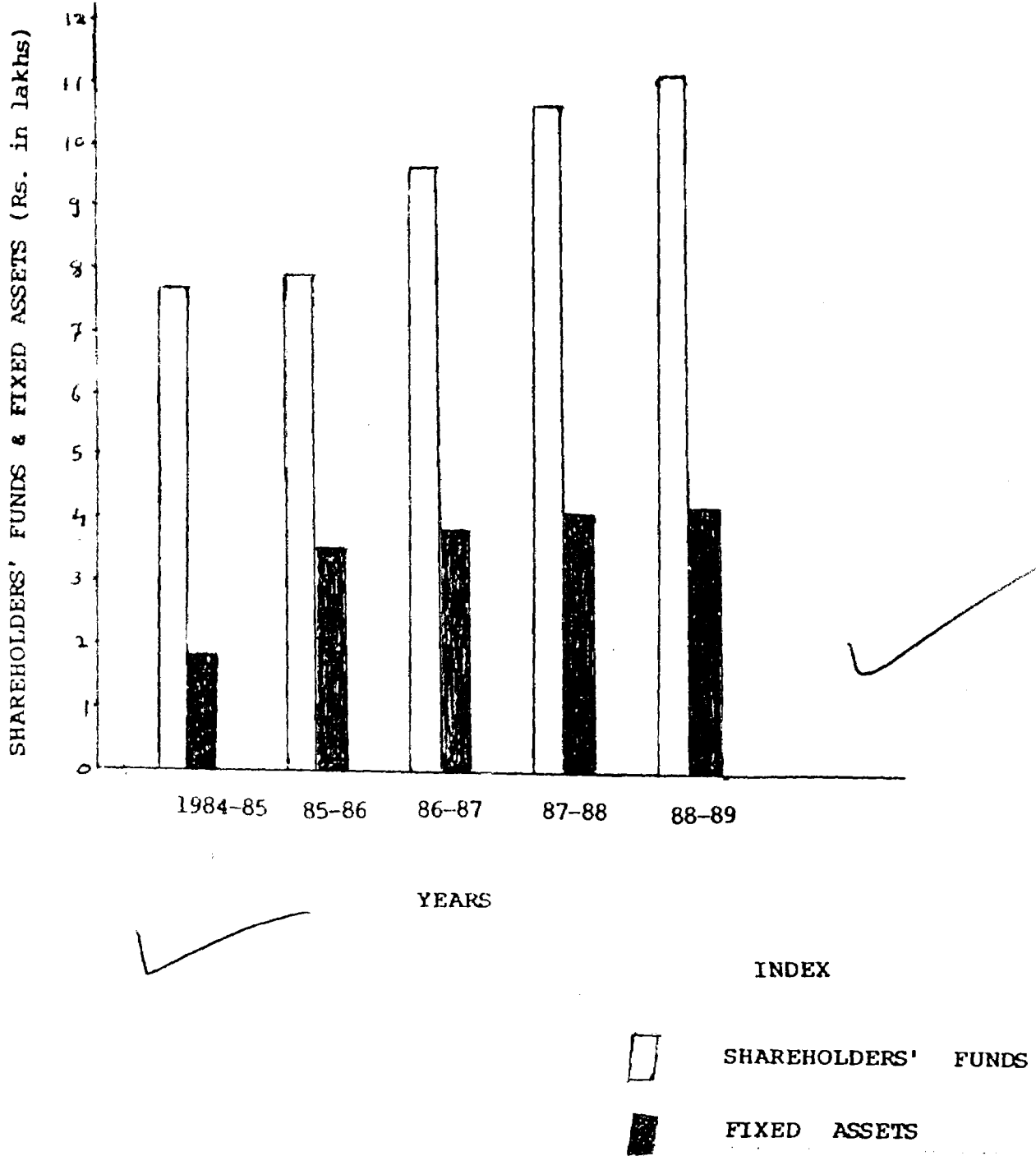
YEAR	SHAREHOLDERS' EQUITY FIXED ASSETS	SHAREHOLDERS EQUITY TO FIXED ASSETS RATIO
1984-85	<u>7,68,875.48</u> 1,80,466.91	4.26 : 1
1985-86	<u>7,89,646.47</u> 3,55,289.95	2.22 : 1
✓ 1986-87	<u>9,60,346.62</u> 3,84,946.81	2.49 : 1
1987-88	<u>10,67,437.61</u> 4,11,124.16	2.59 : 1
1988-89	<u>11,11,662.51</u> 4,16,376.16	2.67 : 1 ✓

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

Analysis of the data contained in the Table 4.12 shows that the shareholders' equity to fixed assets ratio for the year 1984-85 is too high (i.e. 4.26 : 1). The ratio for the rest of the years under study is more or less constant. This ratio indicates that major portion of the shareholders' funds is supplied for the net working capital of the Sangh. Thus, analysis made with the

CHART 4.1

SHAREHOLDERS' FUNDS & FIXED ASSETS





help of shareholders' equity to fixed assets ratio clearly shows that the Sangh can definitely invest shareholders funds in the fixed assets.

J) Gross Profit Ratio

This ratio is calculated by dividing the gross profit by net sales and is usually expressed as a percentage. It expresses the relationship of gross profit on sales to net sales. The determinants of this ratio are the gross profit and sales, which means net sales, obtained after deducting the value of goods returned by the customers from total sales. There is no norm for judging the gross profit ratio and therefore, evaluation is a matter of judgement. The gross profit should be adequate to cover the operating expenses and to provide for fixed charges, dividends and building up reserves. It is calculated as follows :

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

Table 4.13 shows the gross profit ratios calculated on the basis of figures contained in the financial statements of the Sangh from 1984-85 to 1988-89.

TABLE 4.13

GROSS PROFIT RATIO

YEAR	$\frac{\text{GROSS PROFIT}}{\text{NET SALES}} \times 100$	GROSS PROFIT RATIO
1984-85	$\frac{1,92,709.88}{13,056,130.62} \times 100$	1.48 percent
1985-86	$\frac{2,77,711.79}{13,486,019.97} \times 100$	2.06 percent
1986-87	$\frac{3,65,786.91}{12,214,875.00} \times 100$	2.99 percent
✓ 1987-88	$\frac{3,24,109.31}{12,824,217.71} \times 100$	2.53 percent
1988-89	$\frac{3,59,877.93}{13,716,318.39}$	2.63 percent ✓

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

Analysis of the figures contained in Table 4.13 shows that the gross profit ratio is lowest (1.48 percent) for the year 1984-85 and it is highest (2.99 percent) for the year 1986-87. Though, there is decrease in the amount of net sales during the year 1986-87, the amount of gross profit during the said year is increased. This resulted in the improvement of gross profit ratio.

DTSKVS, being a co-operative organisation, cannot push up gross profit ratio by increasing selling prices goods. The only way of improving this ratio is to increase the volume of net sales.

K) Net Profit Ratio

This is the ratio of net income or profit after taxes to net sales. It indicates what portion of sales is left to the proprietors after all costs, charges and expenses have been deducted. It differs from the ratio of operating profit to sales as it is calculated after adding non-operating income to operating expenses from such profit. The ratio is widely used as a measure of overall profitability and is very useful to the proprietors. Net profit ratio is computed with the help of following formula :

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

Table 4.14 shows the net profit ratios calculated on the basis of figures contained in the financial statements of the Sangh from 1984-85 to 1988-89. The figures and net profit ratio in the table indicate that the ratio of net profit for the year 1985-86 is lowest (0.68 percent) while it is highest (1.33 percent) for the year 1986-87. During 1985-86, the Sangh spent heavy amount to the tune of Rs. 37,513 for the payment of interest on loans which resulted in the decreased amount of net profit and low net profit ratio for the

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TABLE 4.14

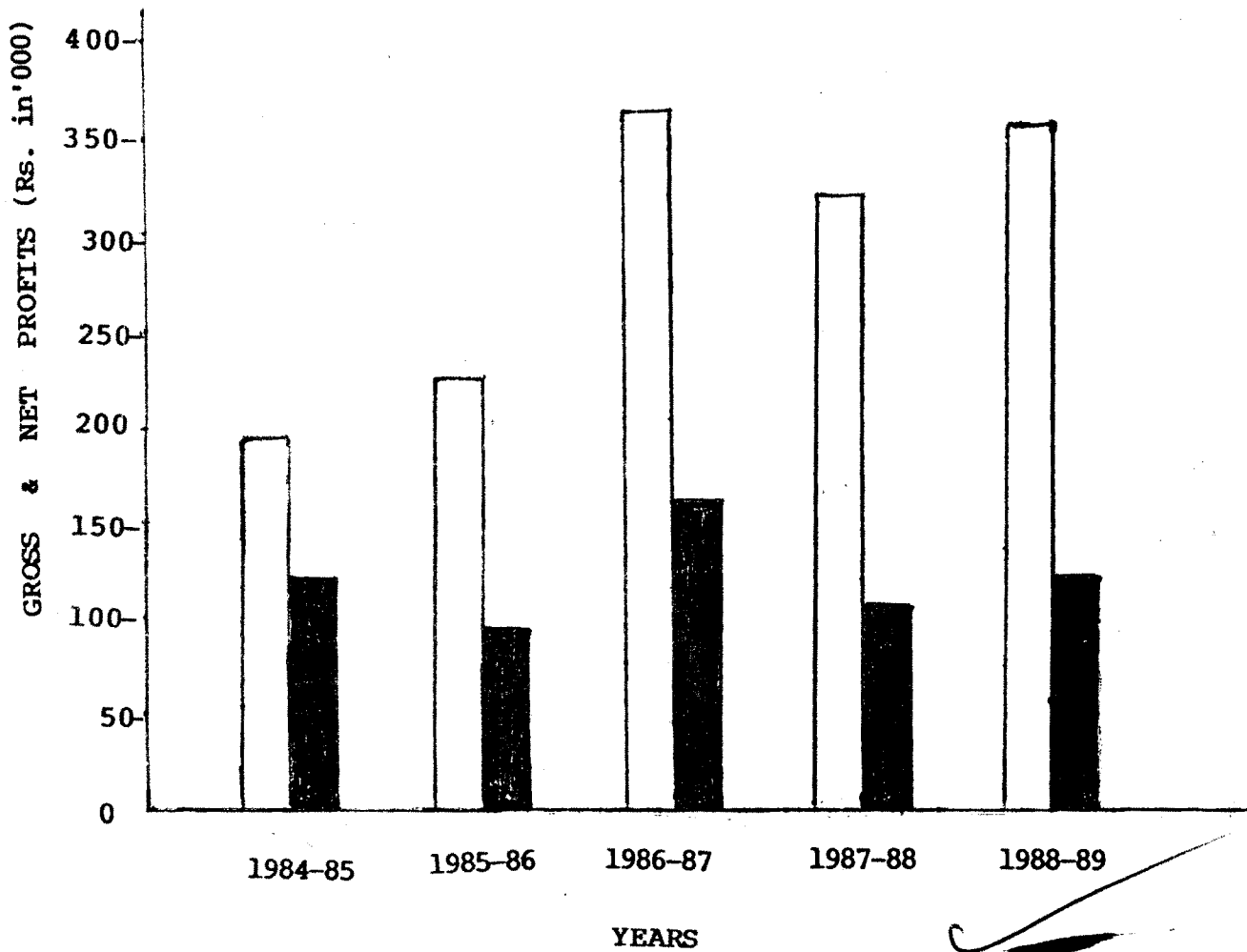
NET PROFIT RATIO

YEAR	$\frac{\text{NET PROFIT}}{\text{NET SALES}}$	X 100	NET PROFIT RATIO
1984-85	$\frac{1,17,835.56}{13,056,130.62}$	X 100	0.90 percent
1985-86	$\frac{91,759.13}{13,486,019.97}$	X 100	0.68 percent
✓ 1986-87	$\frac{1,62,085.50}{12,214,875.00}$	X 100	1.33 percent
1987-88	$\frac{1,09,206.28}{12,824,217.71}$	X 100	0.85 percent ✓
1988-89	$\frac{1,22,934.04}{13,716,318.39}$	X 100	0.89 percent

SOURCE : Annual Reports of DTSKVS (1984-85 to 1988-89)

CHART 4.2

GROSS & NET PROFITS OF DISKVS



INDEX

□ GROSS PROFITS  
■ NET PROFITS

said year as compared to the net profit ratio for the remaining years under study. The Sangh, being a co-operative organisation, maintains low margin of profit on sales. This low margin of profit on sales is another important reason for low profit ratio during the study period.

L) Return on Shareholders' Investment ✓

Return on shareholders' investment, also called 'return on proprietors' funds' is the ratio of net profit to proprietors' funds, as shown by the balance sheet. Shareholders' investment include all categories of share capital, capital reserves and all revenue reserves. So far profits are concerned, they are to be visualised from the viewpoint of the return to shareholders with the result that they should be arrived at after the payment of taxes and other expenses. This is because this income alone would be available to the shareholders for dividends. Return on shareholders' investment or return on capital, is another effective measure of the profitability of an enterprise. In fact, this ratio is one of the most important relationships in financial statement analysis. This ratio is calculated as follows :

$$\text{Return on Shareholders' Investment} = \frac{\text{Net Profit}}{\text{Shareholders' Fund}} \times 100$$

Table 4.15 shows return on shareholders' investment calculated on the basis of figures contained in financial statements of the Sangh.

TABLE 4.15

RETURN ON SHAREHOLDERS' INVESTMENT

YEAR	NET PROFIT SHAREHOLDERS' INVESTMENT	X 100	RETURN ON SHAREHOLDERS' INVESTMENT RATIO
1984-85	$\frac{1,17,835.56}{7,68,875.48}$	X 100	15.32 percent
✓ 1985-86	$\frac{91,759.13}{7,89,646.47}$	X 100	11.62 percent
1986-87	$\frac{1,62,085.50}{9,60,346.62}$	X 100	16.87 ✓ percent
✓ 1987-88	$\frac{1,09,206.28}{10,67,437.61}$	X 100	10.23 percent
1988-89	$\frac{1,22,934.04}{11,11,662.51}$	X 100	11.05 ✓ percent

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

The figures contained in the Table 4.15 above on the return on shareholders' investment ratios indicate that return on shareholders' investment is lowest for the year 1987-88 (10.23 percent) as compared to the remaining years under study. The average rate of return on shareholders' investment for the period of

five years is 13.02 percent. However, keeping in view that DTSKVS is a co-operative organisation, the return on shareholders' investment is quite satisfactory.

M) Ratio of Sale of Chemical Fertilizers to Total Sales

Though, DTSKVS is selling number of articles to its members and others, its attention is mainly concentrated on the sale of chemical fertilizers to the farmers from the operational area of the Sangh. Therefore, it is unavoidable on the part of researcher to calculate the ratio of sale of chemical fertilizers to total sales affected by the Sangh. It is calculated with the help of following formula :

$$\text{Ratio of Sale of Chemical Fertilizers to Total Sales} = \frac{\text{Sale of Chemical Fertilizer}}{\text{Total Sales}}$$

Table 4.17 below shows the ratio of sale of chemical fertilizers to total sales calculated on the basis of the figures appearing in the financial statements of the Sangh from 1984-85 to 1988-89.

The ratio of sale of chemical fertilizers to total sales effected by the Sangh shows that the proportion of sale of chemical fertilizers in total sales is very high over the period of five years under study. During the year 1984-85, near about two third of the total sales is the sale of chemical fertilizers. This proportion is



TABLE 4.16

RATIO OF SALE OF CHEMICAL FERTILIZERS TO TOTAL SALES

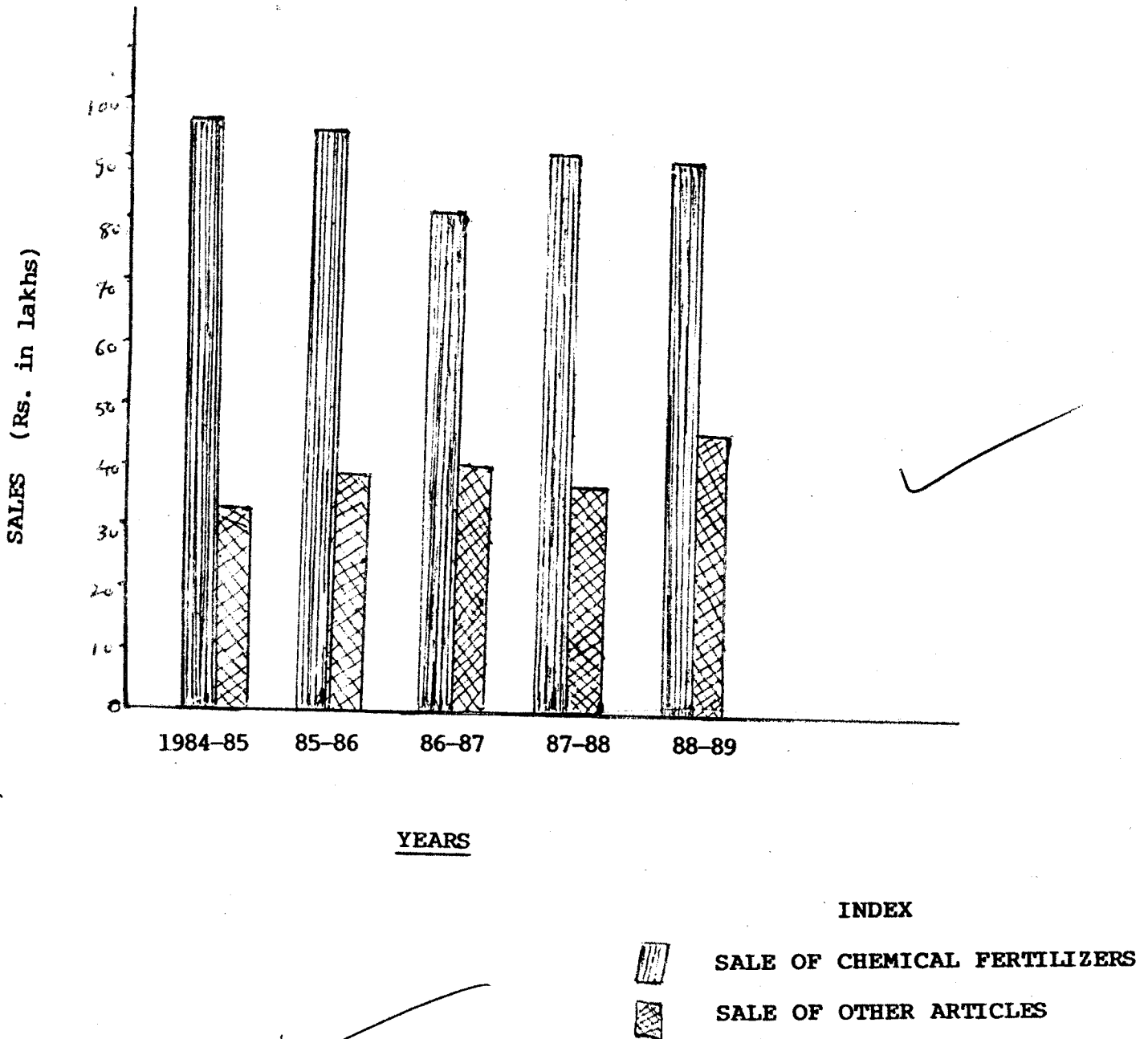
YEAR	SALE OF CHEMICAL FERTILIZERS TOTAL SALES	RATIO OF SALE OF CHEMICAL FERTILIZERS TO TOTAL SALES
1984-85	$\frac{9,711,617.16}{13,056,130.62}$	0.74 : 1
1985-86	$\frac{9,533,585.30}{13,486,019.97}$	0.71 : 1
1986-87	$\frac{8,198,845.75}{12,214,875.00}$	0.67 : 1
1987-88	$\frac{9,115,758.50}{12,824,217.71}$	0.71 : 1
1988-89	$\frac{9,078,236.75}{13,716,318.39}$	0.66 : 1

SOURCE : Annual Reports of the Sangh (1984-85 to 1988-89)

slightly less during the year 1988-89. The main reason for this high proportion of sale of chemical fertilizers in total sales is the heavy demand for chemical fertilizers from Alphanso mango cultivators.

CHART 4.3

SALE OF CHEMICAL FERTILIZERS & OTHER ARTICLES



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