C H A P T E R - IV

WORKING CAPITAL MANAGEMENT IN THE MADHAVNAGAR COTTON MILLS LTD., MADHAVNAGAR (SANGLI).

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This chapter deals with the present nature of the working capital position during the period 1981-82 to 1985-86. It also describes the assessment of working capital in respect of Inventory Management. An attempt has been made about analysis of working capital with some relevant ratios.

As defined earlier in the chapter, 'Theoretical Aspects of The Study, conceptual framework of the working capital has been developed. Gross working capital of a business is the sum of all current assets while the net working capital refers to the excess of current assets over current liabilities and provisions.

Current assets are those assets which can be changed into cash within a short period not exceeding a year. As against these, the current liabilities are those liabilities which are intended to be paid within a short period (normally a year). The components of current assets and current liabilities are as follows.

Current assets include Consumble Stores, Stock-in-Trade, Sundry Debtors, Cash & Bank Balances and Loans & Advances. While current liabilities are composed of Bank Borrowings, Unsecured Loans, Current Liabilities and Provisions and Interest accrued and due.

4.1 SIZE OF WORKING CAPITAL :

The size of working capital of the Company has been examined in the following manner.

1. POSITION OF CURRENT ASSETS, CURRENT LIABILITIES AND NET WORKING CAPITAL.

Table 4.1 given below shows the position of Current Assets, Current Liabilities and Net Working Capital of the Company during the period 1981-82 to 1985-86.

TABLE - 4.1

CURRENT ASSETS, CURRENT LIABILITIES AND NET WORKING CAPITAL.

Particulars	RUPEES IN LACS				
	1981-82	1982-83	1983-84	1984-85	1985-86
A) CURRENT ASSETS :					
a. Consumable Stores	48.40	54.03	52.43	61.02	51.93
b. Stock-in-Trade	340.02	396.50	402.82	384.42	442.38
c. Sundry Debtors	125.62	131.30	119.79	228.80	256.20
d. Cash & Bank Balance	20.64	20.50	11.11	56.71	17.62
e. Loans & Advances	75.49	98.92	79.41	60.06	204.58
Total	610.17	701.25	665.56	791.01	972.71
B) CURRENT LIABILITIES:					
a. Bank Borrowings	319.42	306.36	343.08	463.29	537.48
b. Unsecured Loans	49.88	56.48	56.21	58.46	76.40
c. Current Liabilities & Provisions	243.74	320.94	408.73	361.95	490.04
d. Interest Accrued & Due.	-	18.57	30.94	42.45	58.13
Total	613.04	702.35	838.96	926.15	1162.05
C) Net Working Capital (A - B)	(2.87)	(1.10)	(173.40)	(135.14)	(189.34)

Source : Company's Annual Reports.

NOTE : Figures in bracket should be considered as (-) figures.

Table 4.1 indicates that the size of current assets during the period 1981-82 to 1985-86 had an invariable trend of rising except in 1983-84. The figure of current assets was Rs. 610.17 Lacs in 1981-82, it increased up to Rs. 701.25 Lacs in 1982-83 and then it suddenly decreased up to Rs. 665.56 Lacs in 1983-84. But again the current assets increased constantly from 1984-85. It is Rs. 791.01 lacs and Rs. 972.71 Lacs in 1984-85 and 1985-86 respectively.

Similarly the current liabilities had constantly and increasing trend during the period of the study. The figure of current liabilities was Rs. 613.04 Lacs in 1981-82, which kept increasing and became Rs. 1162.05 Lacs in 1985-86.

The size of net working capital had fluctuated every year in an inconsistent rate. It shows negative increasing and decreasing trend during the period 1981-82 to 1985-86. The negative figure of Net Working Capital was Rs. 2.87 Lacs in 1981-82, it decreased upto Rs. 1.10 Lacs in 1982-83. Then it increased upto Rs. 173.40 Lacs in 1983-84 and immediately decreased upto Rs. 135.14 Lacs in 1984-85. Again there is sudden and tremendeus increase in 1985-86.

Reasons for such incosistant fluctuation in net working capital were ...

1. Constant increase in current assets in all the years, except 1983-84 at an inconsistant rates.

2. Current liabilities had also not shown consistant growth trends. As the current liabilities considerably increased in all years, but in 1985-86 there is a tremendous increase in the respective sizes of current liabilities.

3. Increase in current assets were mainly due to increased investments in inventories, but in 1985-86, investments in all components of current assets increased considerably.

4. Fluctuations in current liabilities were mainly due to frequent changes cash credit arrangements with Banks, which played a very important role in financing the working capital in all the years. Similiarly increase in all components of current liabilities has considerably.

Table 4.2 given below clarifies, the percentage of various components of current assets and current liabilities and Net working capital to the current assets.

TABLE - 4.2

CURRENT ASSETS, CURRENT LIABILITIES AND NET WORKING CAPITAL.

Particulars	PERCENTAGE				
	1981-82	1982-83	1983-84	1984-85	1985-86
A) CURRENT ASSETS :					
a. Consumable Stores	7.93	7.71	7.88	7.71	5.34
b. Stock-in-Trade	55.73	56.54	60.52	48.60	45.48
c. Sundry Debtors	20.59	18.72	18.00	28.93	26.34
d. Cash & Bank Balance	3.38	2.92	1.67	7.17	1.81
e. Loans & Advances	12.37	14.11	11.93	7.59	21.03
Total	100.00	100.00	100.00	100.00	100.00
B) CURRENT LIABILITIES:					
a. Bank Borrowings	52.35	43.69	55.55	58.57	55.26
b. Unsecured Loans	8.17	8.05	8.45	7.39	7.85
c. Current Liabilities & Provisions	39.95	45.77	61.41	45.76	50.38
d. Interest Accrued & Due	-	2.65	4.65	5.37	5.98
Total	100.47	100.16	126.06	117.09	119.47
C) NET WORKING CAPITAL: (A - B)	(0.47)	(0.16)	(26.06)	(17.09)	(19.47)

Source : Company's Annual Reports.

NOTE : Figures in bracket should be considered as (-) figures.

It is evident from the table 4.2 that the percentage of consumable stores to the total current assets is some what unique in all the years except in 1985-86. But the percentage of other components to the total current assets in all the years is at an inconsistent rate, however the percentage of stock-in-trade is comparatively high than the other components of current assets. On an average the percentage comes to 53.37. It means the company has blocked the large amount of funds in stock.

Simil arly the percentage of total current liabilities and their components tc the total current assets in all years is also at an inconsistent rate. The average percentage of Bank Borrowings comes to 53.08 . It means that the compeny has borrowed the large amount of funds from Banks.

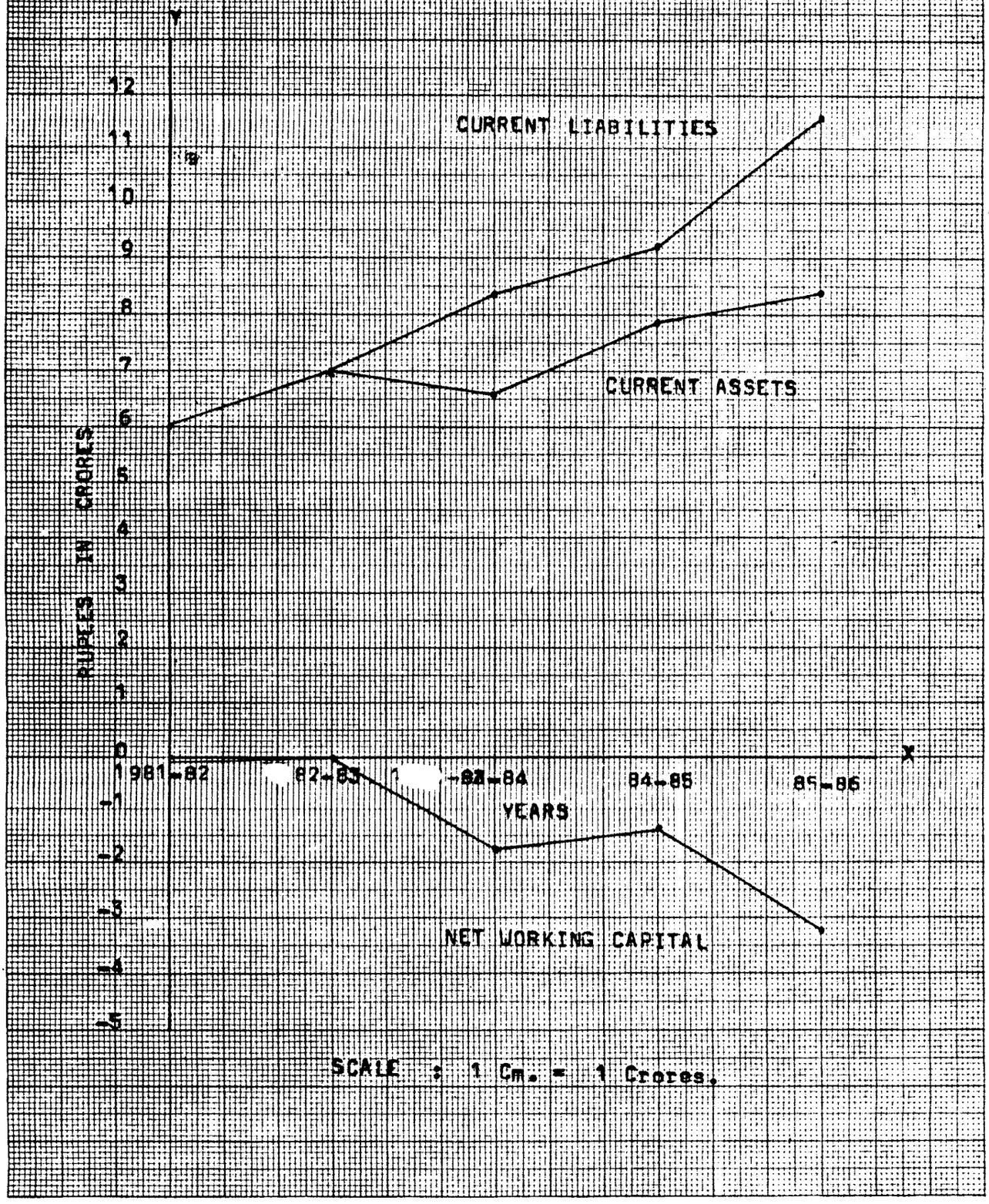
Such as the percentage of Net Working Capital to the current assets is not at consistent rate in all yeers.

Table 4.1 is supported by graph in figure 4.1. The figure gives the clear picture of the position of current assets, current liabilities and Net Working capital of the Company during the period 1981-82 to 1985-86.

Figure 4.1 indicates that the current assets and current liabilities had a positive trend, however current liabilities are higher than current assets. But Net Working Capital had a negative trend during the period 1981-82 to 1985-86.

FIGURE - 4.1

LINE GRAPH OF CURRENT ASSETS, CURRENT LIABILITIES, AND NET WORKING CAPITAL



2. CHANGES IN CURRENT ASSETS, CURRENT LIABILITIES AND NET WORKING CAPITAL.

Table 4-3 clarifies the rates of changes in current assets, current liabilities and their impact on net working capital. It is analysed by treating, "Increase in Current Assets and Decrease in Current Liabilities will lead to increase in net working capital and vice versa." The following inferences have been drawn.

1. In 1982-83, both the current assets and current liabilities increased, but increase in current assets was more than the increase in current liabilities which resulted in increase in working capital.

2. In 1983-84, the net working capital decreased with a cumulative effect as current assets decreased and current liabilities increased.

3. In 1984-85, both the current assets and curfent liabilities increased, but increase in current assets was more than the increase in current liabilities which effected in increase in working capital.

4. In 1985-86, also both the current assets and current liabilities increased but net working capital decreased due to more increase in current liabilities than the current assets.

It is evident from Table 4.3 which shows the rates of changes in current assets, current liabilities and their impact on net working capital that the percentage of changes in current assets, current liabilities and net working capital is at an consistent rate in all years. The impact of changes in current assets and current liabilities on net working capital is tremendous. In 1982-83, due to more increase in current assets i.e. 14.93 % than the current liabilities i.e. 14.57 % the net working capital increased by 61.67 %.

TABLE - 4.3

CHANGES IN CURRENT ASSETS, CURRENT LIABILITIES AND NET WORKING CAPITAL

Sr. No.	Year	RUPEES IN LACS					
		Current Assets	Increase (+)/ Decrease (-)	Current Liabilities	Increase (+)/ Decrease (-)	Net Working Capital	Increase (+)/ Decrease (-)
1.	1981-82	610.17	-	613.04	-	(2.87)	-
2.	1982-83	701.25	+ 91.08 *+ 14.93	702.35	+ 89.31 ** 14.57	(1.10)	+ 1.77 *+ 61.67
3.	1983-84	665.56	- 35.69 *- 5.09	838.96	+ 136.61 *+ 19.45	(173.40)	- 172.30 *- 15663.64
4.	1984-85	791.01	+125.45 *+ 18.85	926.15	+ 87.19 *+ 10.39	(135.14)	+ 38.26 *+ 22.06
5.	1985-86	972.71	+181.70 *+ 22.97	1162.05	+ 235.90 *+ 25.47	(189.34)	- 54.20 *- 40.11

Source : Company's Annual Reports.

NOTE : 1. The percentage of changes is shown by * (Symbol).

2. Figures in bracket should be considered as (-) figure .

In 1983-84 the net working capital decreased by 15663.64 % with a cumulative effect as current assets decreased by 5.09 % and current liabilities increased by 19.45 % . In 1984-85 the current assets increased by 18.85 % and the current liabilities increased by 10.39 % which resulted in increase in working capital by 22.06 %. In 1985-86 due to more increase in current liabilities i.e. 25.47 % than the current assets i.e. 22.97 % the net working capital decreased by 40.11 %.

3. OPERATING CYCLE .

Another way of looking at the working capital requirements is by considering the operating cycle. Operating cycle helps in estimating and managing working capital requirements. Further analysis of operating cycle can be made by separately analysing cash cycle and inventory cycle. Cash and inventory cycle are components of operating cycle. Cash cycle and inventory cycle compliment each other in manufacturing and trading organisations. The exceptions are the financial institutions where cash is the only commodity which is transacted.

Inventory cycle is very important because ...

1."Inventories generally constitute about 60 % or more of the current assets,

2. Inventories in the form of raw materials and stores work-in-progress, and finished goods contribute more than 80 % of the total period of the operating cycle and

3. In majority of the manufacturing and trading firms, inventories constitute an average of 90 % of the net working capital."[1]

In this company the inventories constitute about 60.68 % or more of the current assets and the inventories in the form of raw materials, work-in-process, finished goods and consumable stores contribute more than 70 % of the total period of the operating cycle. This emboldens us to say that managing working capital is synonymous with controlling inventories.

There are three stages or components of the inventory cycle.

1. Raw materials and consumable stores period i.e. Storage of raw materials and consumable stores.

2. Conversion process period i.e. conversion of inventories,

3. Finished Goods period i.e. Storage of finished goods.

However, for the purpose of operating cycle another additional stage or component is added i.e. collection period i. e. sales and collection of receipts.

This inventory cycle and operating cycle and its periodicity depends upon the organisation - its purchase policies, its inventory policies, its conversion process and its sales policies.

It follows at once that with a given quantum of working capital the turnover rate can be increased by reduction in any of the four components of the cycle. While credit availability and collection period depend on external market conditions, better inventory management at once leads to reduction of the time in the storage periods. Hence the performance of the organisation can be improved by better internal management itself.

Here in this section, an attempt has been made through

analysing the inventory cycle and operating cycle to judge the working capital requirements. These cycles have calculated through the following stages.

A. RAW MATERIALS AND CONSUMABLE STORES PERIOD.

1. RAW MATERIALS PERIOD - This period has been calculated by the following formula.

$$\text{Raw Material Period} = \frac{\text{Average Stock of Raw Materials}}{\text{Average Daily Consumption of R.M.}}$$

Where,

$$\text{Average Stock of R.M.} = \frac{\text{Opening Stock of R.M.} + \text{Closing Stock of R.M.}}{2}$$

$$\text{Average Daily Consumption of R.M.} = \frac{\text{Cost of R.M.Consumed}}{\text{No. of days a year}}$$

This period is presented in table 4.4

TABLE - 4.4

RAW MATERIALS PERIOD

Sr. No.	Year	RUPEES IN LACS		Period in days
		Average Stock of R.M.	Average daily Consumption of R.M.	
1.	1981-82	71.90	1.39	51.72
2.	1982-83	113.02	1.36	83.10
3.	1983-84	112.98	1.16	97.39
4.	1984-85	83.88	1.18	71.08
5.	1985-86	82.41	1.16	71.04
	TOTAL	464.19	6.25	74.27
	AVERAGE	92.83	1.25	74.27

Source - Company's Annual Reports.

CALCULATION OF AVERAGE STOCK OF RAW MATERIAL.

$$\text{Average Stock of R.M.} = \frac{\text{Opening Stock of R.M.} + \text{Closing Stock of R.M.}}{2}$$

$$1981\text{-}82 = \frac{43.92 + 99.88}{2} = 71.90$$

$$1982\text{-}83 = \frac{99.88 + 126.17}{2} = 113.02$$

$$1983\text{-}84 = \frac{126.17 + 99.80}{2} = 112.98$$

$$1984\text{-}85 = \frac{99.80 + 67.97}{2} = 83.88$$

$$1985\text{-}86 = \frac{67.97 + 96.86}{2} = 82.41$$

CALCULATION OF AVERAGE DAILY CONSUMPTION OF RAW MATERIAL.

$$\text{Average daily consumption of R.M.} = \frac{\text{Cost of R.M. consumed}}{\text{No.of days a year}}$$

$$1981\text{-}82 = \frac{508.98}{365} = 1.39$$

$$1982\text{-}83 = \frac{499.06}{365} = 1.36$$

$$1983\text{-}84 = \frac{424.86}{365} = 1.16$$

$$1984\text{-}85 = \frac{430.76}{365} = 1.18$$

$$1985\text{-}86 = \frac{424.16}{365} = 1.16$$

2. CONSUMABLE STORES PERIOD - This period is calculated by the following formula.

$$\text{Consumable Stores Period} = \frac{\text{Average Stock of C.S.}}{\text{Average daily consumption of C.S.}}$$

Where,

$$\text{Average Stock of C.S.} = \frac{\text{Opening Stock of C.S.} + \text{Closing Stock of C.S.}}{2}$$

$$\text{Average Daily consumption of C.S.} = \frac{\text{Cost of C.S. consumed}}{\text{No.of days a year}}$$

This period is shown in table 4.5 .

T A B L E - 4.5

CONSUMABLE STORES PERIOD

Sr. No.	Year	RUPEES IN LACS		Period in days
		Average Stock of C.S.	Average daily consum-ption of C.S.	
1.	1981-82	47.08	0.44	107.00
2.	1982-83	51.21	0.48	106.68
3.	1983-84	53.23	0.36	147.86
4.	1984-85	56.72	0.46	123.30
5.	1985-86	56.47	0.64	88.23
	TOTAL	264.71	2.38	111.22
	AVERAGE	52.94	0.47	111.22

Source : Company's Annual Reports.

CALCULATION OF AVERAGE STOCK OF CONSUMABLE STORES.

$$\text{Average Stock of C.S.} = \frac{\text{Opening Stock of C.S.} + \text{Closing Stock of C.S.}}{2}$$

$$1981\text{-}82 = \frac{45.77 + 48.40}{2} = 47.08$$

$$1982\text{-}83 = \frac{48.40 + 54.03}{2} = 51.21$$

$$1983\text{-}84 = \frac{54.03 + 52.43}{2} = 53.23$$

$$1984\text{-}85 = \frac{52.43 + 61.02}{2} = 56.72$$

$$1985\text{-}86 = \frac{61.02 + 51.93}{2} = 56.47$$

CALCULATION OF AVERAGE DAILY CONSUMPTION OF CONSUMABLE STORES.

$$\text{Average Daily Consumption of C.S.} = \frac{\text{Cost of C.S. consumed}}{\text{No.of days a year}}$$

$$1981\text{-}82 = \frac{162.84}{365} = 0.44$$

$$1982\text{-}83 = \frac{178.04}{365} = 0.48$$

$$1983\text{-}84 = \frac{134.42}{365} = 0.36$$

$$1984\text{-}85 = \frac{170.20}{365} = 0.46$$

$$1985\text{-}86 = \frac{235.14}{365} = 0.64$$

3. NET RAW MATERIALS AND CONSUMABLE STORES PERIOD.

This period is calculated by the following formula.

Net R.M. and C.S. period = R.M. and C.S. period - Credit period

This period is shown in table 4.6

TABLE - 4.6

NET RAW MATERIALS AND CONSUMABLE STORES PERIOD

Sr. No.	Year	PERIOD IN DAYS				
		R.M. Period	C.S. Period	Total R.M. & C.S.P.	Credit Period	N.R.M. and C.S. Period
1	2	3	4	5 (3+4)	6	7 (5-6)
1.	1981-82	51.72	107.00	158.72	123.67	35.05
2.	1982-83	83.10	106.68	189.78	151.69	38.09
3.	1983-84	97.39	147.86	245.25	223.44	21.81
4.	1984-85	71.08	123.30	194.38	180.57	13.81
5.	1985-86	71.04	88.23	159.27	182.82	- 23.55

Source : Calculated from Table No. 4.4, Table No. 4.5 and Table No. 4.40

B) CONVERSION PROCESS PERIOD (i.e. TIME TAKEN FOR RAW MATERIALS TO BE CONVERTED INTO FINISHED GOODS)

This period has been calculated by the following formula.

$$\text{Conversion Process period} = \frac{\text{Average Stock of Work in Process}}{\text{Average Cost of Production per day}}$$

Where,

$$\text{Average Stock of W. i. P.} = \frac{\text{Opening Stock of W. i. P} + \text{Closing Stock of W.i.P.}}{2}$$

$$\text{Average Cost of Production per day} = \frac{\text{Total Cost of Production}}{\text{No.of days a year}}$$

This period is as shown in table 4.7 .

TABLE - 4.7

CONVERSION PROCESS PERIOD

Sr. No.	Year	RUPEES IN LACS		Period in day
		Average Stock of W. i. P.	Average Cost of Production per day	
1.	1981-82	129.14	3.72	34.71
2.	1982-83	138.67	3.95	35.10
3.	1983-84	116.94	3.68	31.77
4.	1984-85	130.06	4.05	32.11
5.	1985-86	142.90	4.81	29.70
	TOTAL	657.71	20.21	32.54
	AVERAGE	131.54	4.04	32.54

Source : Company's Annual Reports.

CALCULATION OF AVERAGE STOCK OF WORK-IN-PROCESS.

$$\text{Average Stock of Work-in-Process} = \frac{\text{Opening Stock of W. i. P.} + \text{Closing Stock of W. i. P.}}{2}$$

$$1981\text{-}82 = \frac{109.54 + 148.75}{2} = 129.14$$

$$1982\text{-}83 = \frac{148.75 + 128.60}{2} = 138.67$$

$$1983\text{-}84 = \frac{128.60 + 105.28}{2} = 116.94$$

$$1984\text{-}85 = \frac{105.28 + 154.84}{2} = 130.06$$

$$1985\text{-}86 = \frac{154.84 + 130.97}{2} = 142.90$$

CALCULATION OF AVERAGE COST OF PRODUCTION PER DAY.

$$\text{Average Cost of production per day} = \frac{\text{Total Cost of Production}}{\text{No.of days a year}}$$

$$1981\text{-}82 = \frac{1358.48}{365} = 3.72$$

$$1982\text{-}83 = \frac{1444.89}{365} = 3.95$$

$$1983\text{-}84 = \frac{1345.13}{365} = 3.68$$

$$1984\text{-}85 = \frac{1478.36}{365} = 4.05$$

$$1985\text{-}86 = \frac{1756.77}{365} = 4.81$$

C. FINISHED GOODS PERIOD (i.e. AVERAGE PERIOD FOR WHICH THE FINISHED GOODS ARE HELD IN STORE.)

This period is calculated by the following formula.

$$\text{Finished Goods Period} = \frac{\text{Average Stock of Finished Goods.}}{\text{Average cost of finished goods sold per day}}$$

Where,

$$\text{Average Stock of Finished Goods} = \frac{\text{Opening Stock of F.G.} + \text{Closing Stock of F.G.}}{2}$$

$$\text{Average Cost of Finished Goods Sold per day.} = \frac{\text{Total Cost of Goods Sold}}{\text{No.of days a year}}$$

This period is presented in table 4.8 .

TABLE - 4.8

FINISHED GOODS PERIOD

Sr. No.	Year	RUPEES IN LACS		Period in days
		Average Stock of Finish Goods.	Average Cost of F.G. sold per day.	
1.	1981-82	77.31	3.74	20.67
2.	1982-83	116.56	3.96	29.43
3.	1983-84	169.73	3.65	46.50
4.	1984-85	179.67	4.25	42.27
5.	1985-86	188.08	4.79	39.26
	TOTAL	731.35	20.39	35.86
	AVERAGE	146.27	4.07	35.86

Source : Company's Annual Reports.

CALCULATION OF AVERAGE STOCK OF FINISHED GOODS.

$$\text{Average Stock of F.G.} = \frac{\text{Opening Stock of F.G.} + \text{Closing Stock of F.G.}}{2}$$

$$1981\text{-}82 = \frac{63.24 + 91.39}{2} = 77.31$$

$$1982\text{-}83 = \frac{91.39 + 141.73}{2} = 116.56$$

$$1983\text{-}84 = \frac{141.73 + 197.74}{2} = 169.73$$

$$1984\text{-}85 = \frac{197.74 + 161.61}{2} = 179.67$$

$$1985\text{-}86 = \frac{161.61 + 214.56}{2} = 188.08$$

CALCULATION OF AVERAGE COST OF FINISHED GOODS SOLD PER DAY.

$$\text{Average Cost of Finished Goods Sold per day} = \frac{\text{Total Cost of Goods sold}}{\text{No.of days a year}}$$

$$1981\text{-}82 = \frac{1368.74}{365} = 3.74$$

$$1982\text{-}83 = \frac{1446.83}{365} = 3.96$$

$$1983\text{-}84 = \frac{1334.03}{365} = 3.65$$

$$1984\text{-}85 = \frac{1552.93}{365} = 4.25$$

$$1985\text{-}86 = \frac{1749.18}{365} = 4.79$$

D. TOTAL INVENTORY CYCLE PERIOD.

This period has been calculated by the following formula.

I.C.P. = N.R.M. & C.S. Period + Conversion Process period + F.G.Period

This period is as shown in table 4.9 .

T A B L E - 4.9

INVENTORY CYCLE PERIOD

Sr. No.	Year	PERIOD IN DAYS				Turnover in times
		N.R.M. & C.S.Period	Conversion Process period	Finished Goods period	Inventory cycle period	
1.	1981-82	35.05	34.71	20.67	90.43	4.03
2.	1982-83	38.09	35.10	29.43	102.62	3.55
3.	1983-84	21.81	31.77	46.50	100.08	3.64
4.	1984-85	13.81	32.11	42.27	88.19	4.13
5.	1985-86	- 23.55	29.70	39.26	45.41	8.03

Source : Calculated from Table No. 4.6, 4.7 and 4.8 .

CALCULATION OF TURNOVER OF WORKING CAPITAL INVESTED IN INVENTORY.

$$\text{Turnover of W.C. invested in Inventory} = \frac{\text{No. of days a year}}{\text{Period of Inventory cycle}}$$

$$1981\text{-}82 = \frac{365}{90.43} = 4.03$$

$$1982\text{-}83 = \frac{365}{102.62} = 3.55$$

$$1983\text{-}84 = \frac{365}{100.08} = 3.64$$

$$1984\text{-}85 = \frac{365}{88.19} = 4.13$$

$$1985\text{-}86 = \frac{365}{48.41} = 8.03$$

E. OPERATING CYCLE PERIOD.

This period has been calculated by the following formula.

Total Operating Cycle Period = Inventory cycle period + Collection period

This period is presented in table 4.10 .

It is evident from Table 4.9 showing the inventory cycle period that theinventory cycle period registered a fluctuating trend during the period from 1981-82 to 1985-86 . The period of inventory cycle was 90.43 days in 1981-82 which kept increasing and became 102.62 days in 1982-83. However, the period decreased to 100.08 days in 1983-84 and further to 88.19 days and 45.41 days in 1984-85 and 1985-86 respectively. The fluctuations in the period of inventory cycle was due to the change in the period of net raw materials and consumable stores, conversion process and finished goods.

It is also evident from the same table that the turnover of working capital invested in inventory also registered a fluctuating

TABLE - 4.10

OPERATING CYCLE PERIOD

Sr. No.	Particulars	PERIOD IN DAYS				
		1981-82	1982-83	1983-84	1984-85	1985-86
1.	Inventory cycle period	90.43	102.62	100.08	88.19	45.41
		(76.91)	(76.96)	(73.45)	(64.74)	(48.37)
2.	Collection period	27.15	30.73	36.17	41.99	48.47
		(23.09)	(23.04)	(26.55)	(32.26)	(51.63)
3.	Operating cycle period	117.58	133.35	136.25	130.18	93.88
		(100.00)	(100.00)	(100.00)	(100.00)	(100.00)
4.	Indices of operating cycle	100.00	113.41	115.87	110.71	79.84
5.	Turnover of W.C. in times.	3.10	2.73	2.67	2.80	3.88

Source : Calculated from Table No. 4.9 and Table No. 4.39 .

NOTE : Figures in paranthesis show the percentage of I.C.P. & collection period to operating cycle period.

trend during the overall period of the study. The turnover of working capital invested in inventory was 4.03 times in 1981-82 which got reduced to 3.55 times in 1982-83. However, the turnover increased to 3.64 times in 1983-84 and further to 4.13 times and 8.03 times in 1984-85 and 1985-86 respectively. The fluctuations in the turnover of working capital invested in inventory took place due to changes in the overall period of inventory cycle.

It is evident from Table 4.10 showing the operating cycle period that the major portion of the operating cycle was taken by

inventory cycle period. It is due to the nature of Cotton Textile Mill, that, it takes a long time to convert a cotton into saleable cloth. On the whole inventory cycle takes more than 70 % time of the operating cycle. The period of operating cycle shows a fluctuating trend throughout the period of the study. The period of operating cycle was 117.58 days in 1981-82 which kept increasing and became 136.25 days in 1983-84 . However, the period decreased to 130.18 days in 1984-85 and further to 93.88 days in 1985-86. The period of operating cycle varied from 93.88 days in 1985-86 to 136.25 days in 1983-84 forming a very high range of 42.37 days. This shows a very significant fluctuation in the period of operating cycle. The fluctuations in the period of operating cycle was due to the changes in the inventory cycle period and collection period.

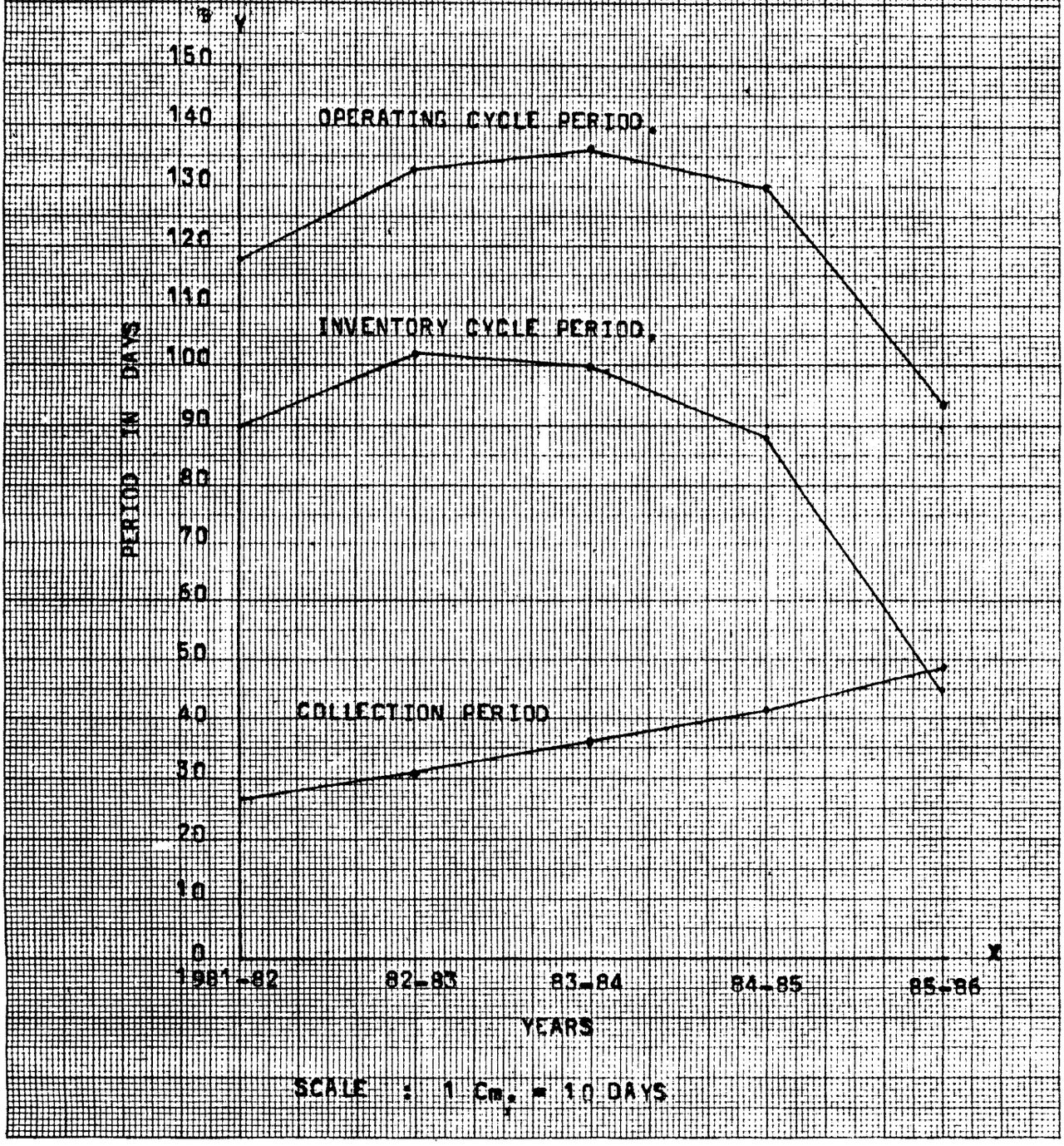
It is also evident from the same Table that the turnover of working capital also shows a fluctuating trend throughout the overall period of the study. The turnover of working capital was 3.10 times in 1981-82 which kept decreasing and became 2.67 times in 1983-84. However, the turnover increased to 2.80 times in 1984-85 and further to 3.88 times in 1985-86. The turnover of working capital varied from 2.67 times in 1983-84 to 3.88 times in 1985-86, forming a very high range of 1.21 times. The fluctuations in the turnover of working capital took place due to changes in the overall period of the operating cycle.

Table 4.10 is supported by graph in figure 4.2. The figure gives the clear picture of the inventory cycle period, collection period and operating cycle period from 1981-82 to 1985-86.

It is evident from the same figure that the collection period

FIGURE - 4.2

LINE GRAPH OF INVENTORY CYCLE PERIOD, COLLECTION PERIOD AND OPERATING CYCLE PERIOD



SCALE : 1 Cm. = 10 DAYS

continuously registered a rising trend throughout the period of the study, while the inventory cycle period and the operating cycle period continuously marked a variable trend during the period form 1981-82 to 1985-86.

4.2 WORKING CAPITAL MANAGEMENT IN RESPECT OF INVENTORY MANAGEMENT :

In this section an attempt has been made about inventory management practised by the company.

1. PLANNING - Planning is a basic and major part of every exective job. In most of the organisations, the materials manager can make significant contribution to the long-range planning. But in this Company, Purchase Department and Stores Department took the part in planning of Inventory. The material management is formerly concerned with short-term plenning. He develops the company's basic operating plen, consists of two basic components.

a. A forecasting of Revenues - This is the porfit making organisation, it would be conventional sales forecaste.

b. A Budget - This is a break-up of expenses that have been expected for some particular level of revenue.

Achievement of the important objectives of the inventory, the material planning process is very improtant one. Such objectives are -

1. Low Price 2. High Inventory turnover
3. Low Cost of acquisition and procession. 4. Continuity of Supply. 5. Consistency of Quality. 6. Low pay-roll Cost.

The following factors are taken into consideration for planning

process of materials in the above said company.

1. Achievements of objectives. 2. Future price and availability 3. Production planning.

2. PURCHASES OF MATERIAL : The purchases of material has been made by the Cotton Purchase Department and Stores Department of the Company. The Cotton Purchase Department is concerned with purchases of raw material i.e. Cotton and Man-Made Fibre, while the Store Department is concerned with purchases of consumable stores and spares parts required to the mills. In accordance with the established time, tested practice and norms laid down in that behalf, the Cotton Purchase Manager and Managing Director of the Company places the order to supplier. Usually a Purchase Order Form and Cotton Contract Form is used by the Cotton Purchases Department as shown in Table 4.11 and Table 4.12 .

TABLE - 4.11

RAW MATERIAL PURCHASE ORDER FORM

PURCHASE ORDER FORM

Purchase Note No.: ..... Date : .....

MADHAVNAGAR COTTON MILLS LTD., MADHAVNAGAR.

Party's Name ----------
Quality ----------
No.of Bales ----------
Price per Candy ----------
Price per Quintal ----------
Delivery for Spot/Bombay/Madhavnagar ----------
Lot No. ----------
Press Mark ----------
Press Running No. ----------
Delivery period ----------
Broker ----------
Payment Terms ----------
Other Terms ----------
For which Count ----------
Mills approved date ----------
Remarks ----------

Prepared by : Managing Director.

Source : Company's Purchase Order Form.

TABLE - 4.12

COTTON CONTRACT FORM

~~Subject to Sangli Jurisdiction.~~

The Madhavnagar Cotton Mills Ltd; Madhavnagar.

Gram :
MADHCONTEX

Registered Office :
P. O. MADHAVNAGAR
Dist. Sangli

Tele No. (Sangli Exchange)
2213 Director in-charge
2251 Manager
2067 Business Office

COTTON CONTRACT

Contract No. M / Date

To
M/s.

Dear Sirs,

We confirm having purchased from you the following cotton bales (subject to lot sample approval) :

QUALITY :

QUANTITY :

RATE : Rs.
per candy spot Mill delivery on N. M. T. terms including all taxes.

PAYMENT :

DELIVERY :

BROKERS :

OTHER TERMS :

The quality of the cotton must be in accordance with the sample approved by us and retained by the Mills.

In case of difference in weight between Merchant's weight note, and Mill's weight note, the lower of the two will be accepted by the Mills for final payment

This contract is subject to general conditions on the reverse.

Thanking you.

Yours faithfully,

" We confirm the above "

FOR THE MADHAVNAGAR COTTON MILLS LTD.

SELLERS

Director - in - charge

Source : Company's Cotton Contract Form.

After placeing the Order the follow-up is done by the Cotton Purchase Manager by using devices such as follow-up letters, Telephones and if required Teligrams in the mean times.

The Stores Department which is centralised collects the requirements from each department, which contain time, quality, quantity and when they require. On the receipt of requirements and considering the Stock Levels in the Stores, the Stores Department analyse each case before placing the order. It is usual for it to maintain a suitable record for quotations. By that they select the supplier securing highest quality of material at lowest price and due consideration is given to terms and delivery dates. After selecting the supplier, the Stores Dept. incharge and General Manager of Purchase & Processing Dept. of the Company places the purchase order for purchases of consumable stores and spare-parts required by the various departments. Usually a Purchase Order Form is used by the Stores Purchase Department as shown in Table 4.13.

After placeing the order the follow-up is done by the Stores Dept. in-charge by using devices such as follow-up letters, telephones and if required telegrams in the mean times.

3. RECEIPT OF MATERIAL : In accordance with the Cotton Purchase Dept. the received material is checked and inspected by the inspecting Clark with reference to the purchase order. If it is as per the Purchase Order then he entered the material in Cotton Receipt Register. The Cotton Receipt Register is used by the Dept. as shown in Table 4.14 .

TABLE - 4.13

STORES MATERIAL PURCHASE ORDER FORM

The Madhavnagar Cotton Mills Ltd; Madhavnagar.

MILLS & REGD. OFFICE- MADHAVNAGAR, (S. C. RLY.)
Grain : MADHCONTEX Madhavnagar,
Telex : 0193-212 Phone 4611 to 4615

BOMBAY OFFICE - Development Bank Building Palton Road, BOMBAY-1
Phone 268225/26, 268820

S. T. R. C. No. N-31-C-6 Dated 1-1-60
C. S T. R. No. Bom. 31-C-10 (Central) Dated 1-7-75

To, _____

Stores Purchase Dept.
PURCHASE ORDER

No.

Date —

Dear sir,

Subject to conditions given on reverse, Please, supply the following materials as specified.

Indent No.	Sr. No.	DESCRIPTION OF ARTICLES	Quantity	PRICE Rs.	Ps.	Per

N B 1) Bill in Duplicate must come with the Sale Tax form No. 31 or 31 A as applicable along with supply.

Approximate Cost : Rs —

1) Delivery Period _____
2) Price : Ex Works/Godown/Mill Delivery/F. O. R. _____
3) Sales Tax _____
4) Mode of Despatch :
5) Payment Terms- 1) Within ____days from receipt of goods
2) Against L / C
3) Documents to be negotiated through the Sangli Bank Ltd;Bank of Maharashtra Madhavnagar on presentation _____ days D. A. Basis Without any interest.

For The Madhavnagar Cotton Mills Ltd.,

General Manager
Purchase & Processing

(Please return following slip duly completed)

To,
The Madhavnagar Cotton Mills Ltd; Madhavnagar. (Dist-Sangli)

Your Purchase order No. _____ dated _____ is accepted & will be executed on or before _____ Which please note.

Yours faithfully,

Source : Company's Stores Material Purchase Order Form.

TABLE - 4.14

COTTON RECEIPT REGISTER

THE MADHAVNAGAR COTTON MILLS LTD., MADHAVNAGAR.

COTTON RECEIPT REGISTER P,No.

E.No.	Date	Contract No.	Bill No.	Name of the Party	Station
1	2	3	4	5	6

Quality	Bales	Goods Received particulars	Invoice Weight Qtl. : Kg.
7	8	9	10

Actual Weight Qul.	Kg.	Difference Qtl	Kg.	Rate Rs.	Ps	Bill Amount Rs.	Ps.
11		12		13		14	

Particular	Other Expenses Rs.	Ps.	Particulars	Signeture
15	16		17	18

Source : Company's Cotton Receipt Register

In accordance with the Stores Purchase Dept. the Store-Keeper checks the materials with reference to Purchase Order. Checking may be qualitative and Quantitative. Usually every materials has one or two samples. Each Dept. has to check the sample and submit the report to the Store Dept.. Materials which are not qualitative, as per purchase order, that material is returned back to the suppliers and these materials which are correct as per purchase order have been accepted.

And the Goods Receipt Note is prepared. Generally, a Goods Receipt Note used by the Dept is shown in Table 4.15 .

This Goods Receipt Note is used for source of posting by the Account Department. Copies of Purchase Order, Goods Received Note is sent to Account Dept. to be chacked against each other,where the Invoice is vouched. If all things in the Invoice are found to be correct, a voucher authorising peyment is prepared and entered in the Voucher Register and then the Voucher is sent to the Cashier for payment.

4. STORE KEEPING PROCEDURE : Store Keeping is the function involving proper keeping of Stocks, identifying and classifying them according to their nature, type and size and includes proper maintence of Stock records.

So far as Cotton Purchase Dept is concern the acquired material is tested with quality and quantity required by the Production Dept. In order to test the material the Company has established a separate Inspection Dept. The materials which are below the requirements are rejected and accepted materials are recorded in the Cotton Receipt Register. The usual form of Register is used by the Dept. as already shown in Table 4.14. In this register all information related to materials are recorded. In addition the 'Daily Cotton & Fibre Stocks Report' is also prepared by the Dept. The report prepared by the Dept. is shown in Table 4.16 .

All the accepted materials are stored in the available space in the Godown and is kept properly according to their nature, type & size.

TABLE - 4.15

GOODS RECEIPT NOTE

The Madhavnagar Cotton Mills Ltd,
Madhavnagar. 416 406 Dist - SANGLI.

GOODS RECEIPT NOTE

GRN No.	Date :
	Dept :

Supplier.....

Material Recd. date	Challan No. & Date	LR/RR/PP No. & Date	Truck No. / Wagon No.	Total No. of Items / Weight	Stores Letter No. & Date	Gate Pass No. & Date	Freight Rs.	Purchase order No.	Date	Comm. by

Material Code	Sr. No.	Description Size of Material	Unit	Quantity Reqd	Quantity rejected	Quantity accepted	Bin No.	Unit Rate	Amount Rs.	Amount Ps.

Inspection Remarks.

Stocked by

Offered for Inspection

Salvage charges if any

Received from Inspection

Inspector

Inspection Authority

Supplier A/c No.	Bill No. & Date	Credit Note No. & Date / Amount	Credit Note No. & Date / Amount

STORE KEEPER

Office Copy [redacted]

Source : Company's Goods Receipt Note.

TABLE - 4.16

DAILY COTTON AND FIBRE STOCKS REPORT

The M. C. M. Ltd, Madhavnagar. **DAILY COTTON & FIBRE STOCKS REPORT** Date _____

C. S. P.	Count	Quality & Station	Opening Stock	Today,s Receipts	Total	Today,s issued	Balance in Mills	Stock in Mills for days	Stock in bank Godown	Stock in Mills Godowns				
										G.d. No	G.d. No.	G.d No	G.d. No.	Total

Source : Company's Daily Cotton and Fibre Stocks Report.

So far as stores purchase department is concern the accepted and tested as well as checked material is stored in stores-room. Three separate store-room are avaiable for storing and keeping the material. The store keeper stores the material in accordance with their nature, type, quality and size. He maintains the following stock records.

a. GOODS RECEIPT NOTE - As and when the materials are received the said note is prepared. This note is as already in Table 4.15 All informations related to materials are recorded in this note.

b. STORES LEDGER - The store Ledger is also prepared for recording of stocks of material. All relavant informations are recorded in this store ledger. Usually a stores ledger is used by the department as shown in Table 4.17 .

TABLE - 4.17

STORES LEDGER

THE MADHAVNAGAR COTTON MILLS LTD.,MADHAVNAGAR.

Previous L.F. STORES LEDGER

Name of the Item

Date	Page No.	Name of the supplier	Particulars	Rate
1	2	3	4	5

Receipts			Issues			Balance
Quantity	Value		Page No.	Date	Quantity	
	Rs.	Ps.				
6			7			8

Source - Company's Store Ledger.

Totally 24 separate departmentwise store ledgers have been maintained for recording the various items of materials. These Departmentwise store ledgers are listed in Table 4.18 .

TABLE - 4.18

DEPARTMENTWISE STORE LEDGER

Sr.No.	Ledger No.	Name of the ledger
1	1	Blow Room and Carding.
2	2	Speed Frame.
3.	3	Ring Frame.
4	4	Blow Room & Carding (Wheels)
5	5	Speed Frame (Wheels)
6	6	Ring Frame (Wheels)
7	7	Comber.
8	8	Winding.
9	9	Auto Pirn Winding.
10	10	Weaving Plain Looms.
11	11	Weaving Auto Looms.
12	12	Sizing/Packing material.
13	13	Chemicals.
14	14	Colours.
15	15	Folding Packing Misc.
16	16	Oil Stores.
17	17	Tool Stores.
18	18	Pipe Fittings.
19	19	Building Materials & Hardware.
20	20	Engineering Boiler.
21	21	'V' Belts.
22	22	Ball Bearings.
23	23	Electrial Stores.
24	24	Sundry Materils.

Source - Company's Store Ledger List.

c. MATERIAL ABSTRACT - Material Abstract prepared by the department is as shown in Table 4.19 -

T A B L E - 4.19

MATERIAL ABSTRACT

THE MADHAVNAGAR COTTON MILLS LTD., MADHAVNAGAR.

MATERIAL ABSTRACT

Sr.No.	Name of the item	Unit	Quantity	Rate	Value	
					Rs.	Ps.
1	2	3	4	5	6	

Source - Company's Material Abstract.

d. STOCK REGISTER - A Stock Register is also prepared for knowing the stock in the Godown. Usually a Stock Register is prepared for ascertaining the actual stocks with the store ledger. A Register is used by the store department as presented in Table 4.20 .

T A B L E - 4.20

STOCK REGISTER

THE MADHAVNAGAR COTTON MILLS LTD., MADHAVNAGAR.

STOCK REGISTER

Sr.No.	Name of the item	Unit	Stock as on Quantity

Source - Company's Stock Register.

5. MATERIAL ISSUE PROCEDURE : In accordance with the raw-material the cotton purchase department issues the materials as per

demand of the production department. They do not use FIFO, LIFO, HIFO, NIFO or any other methods of issuing materials. Book value is taken into consideration for recording the transctions.

In accordance with the consumable stores and spare parts the stores department incharge receives the requirement from several Dept. The requirement is based on 'Store Issue Slip' which is prepared in triplecate. One copy is retained by the dept. requisitioning and other two passed to stores department. The store keeper retains one copy and otheris sent to accounting department. The 'Store Issue Slip' is as shown in Table 4.21 .

The store keeper issues the material against the 'Stores Issue Slip' which is received from several departments. If the required materials is not available in the store, the store keeper makes the cost of that materials and send to store department incharge. The valuation of such issues of material is done by FIFO method.

6. TRANSPORATION OF MATERIAL : When raw materials are purchased at specific market, the materials are transported by trucks upto railway station, and from railway station to plant by both railway and trucks for early delivery finished. Goods are transported by trucks only for quick delivery. The company expects the goods to other countries also, so for that the goods are transported by trucks upto Bombay.

The raw material of this mill is bulk in size but light in weight. Therefore materials are handled by the workers. They carry the raw materials from one dept.to another department by wheel lend trolly. Similarly other material i.e. spare parts, oils, chemicals, colour etc. are also handled by workers.

TABLE - 4.21

STORE ISSUE SLIP

The Madhavnagar Cotton Mills Ltd;
Madhavnagar. 416 406

STORE ISSUE SLIP

No. _____ Date _____

To,
The Store Keeper
Please Issue following Material

Dept.	Dept No.	End Use

Mat. Code No.	Sr. No.	Material Description	Qty. Reqd.	Unit	Qty. Issued

Prepared by Authorised Sign. No. of Items Issued by Store keeper

Source - Company's Store Issue Slip.

7. SALES PROCEDURE OF FINISHED GOODS : Sale department is concerned with the sales of finished goods. General Manager(Marketing) Sales Manager(Inland Sales) and Sales Manager(Export Sales) are dealing with Sales of Finished Goods.

The departments of cloth sales, yarn sales, waste sales and processing sales are separate but the slees procedure is the same for all departments.

The sales department receives the sales order form their agents and customers and records it in 'Order Register'. The Order Register is as shown in Table 4.22 .

TABLE - 4.22

ORDER REGISTER

THE MADHAVNAGAR COTTON MILLS LTD., MADHAVNAGAR.

ORDER REGISTER

Quality :

Indent No.	Agent	Name of the Party and Place	Booking Rate
1	2	3	4

Bales Booked	Despatch Instructions	Despatches Made
5	6	7

Source - Company's Order Register.

After receiving the orders the sales department despatches the goods as per the order. Following two methods have been used for sales.

1. SALES THROUGH BANK APPROVED LRS : Under this method the goods are sent to transport company for its despatchment. Booking of the goods is done by the transport company and Bank approved LRs have been despatched to the parties. The same LRs are endrosed to the Bank. The Banks endroses the same LRs to the concerned Agent or Party at the delivery destination. The party or Agent gets the said LRs after paying the full amount of the bill. The delivery of the said goods is made to the concerned Agent or Party under the original FDC LRs.

2. SALES THROUGH T.I.P. BILLS SYSTEM : Under this method the orders are received and then T.I.P. Bill (Telegraphic Invoice Proforma) is prepared by the Sales Dept. And the party is asked by telegram to send the bill amount within twelve days. On receipt of the bill amount LR is sent directly to the party. The proforma is as shown in Table 4.23

TABLE - 4.23

T. I. P. BILL

THE MADHAVNAGAR COTTON MILLS LTD., MADHAVNAGAR

T. I. P. BILL

T.I.P.Bill No.	Date	Name of the Party & Place	Bill Amount
1	2	3	4

Quality	Mtre	Telegram given on	Remarks
5	6	7	8

Source - Company's T. I. P. Bill.

The booking of the goods have been done and dispatched by the transport company. The LRs sent through post to the concerned Agent or Party after receipt of the bill amount. The concerned Agent or Party sent the bill amount through Cheques or Drafts and gets the LRs for delivery purpose. For receipts of the bill amount the T.I.P. Receipt is prepared. The receipt is as shown in Table 4.24 .

TABLE - 4.24

T. I. P. RECEIPTS

THE MADHAVNAGAR COTTON MILLS LTD.,MADHAVNAGAR.

T. I. P. RECEIPTS

Date	Amount Receivable	Payment Received	Balance	To day's Billing	Balance
1	2	3	4	5	6

Source - Company's T. I. P. Receipts.

The orders which are pending are recorded in pending order register. The Register is as shown in Table 4.25 .

TABLE - 4.25

PENDING ORDER REGISTER

THE MADHAVNAGAR COTTON MILLS LTD., MADHAVNAGAR

PENDING ORDER REGISTER

Quality
Description

Date	Opening Balance	Order received	Total orders at hand	Delivery made	Balance
1	2	3	4	5	6

Source - Company's Pending Order Register.

Further more the Daily Sales Report is prepared in this sales procedure. The report is as shown in table 4.26 .

TABLE - 4.26

DAILY SALES REPORT

THE MADHAVANAGR COTTON MILLS LTD., MADHAVNAGAR

DAILY SALES REPORT

Date :

	Description of Goods	To day's Sale	Up-to-date sale
1	R. M. G.		
	a) Bangalore	---	---
	b) Bombay	---	---
	c) Delhi	---	---
2	Up Country Sales	---	---
3	Industrial	---	---
4	Govt. Supply	---	---
5	Bombay Whole-sale	---	---
6	Export (Cloth)	---	---
7	Yarn		
	a) Madhavnagar	---	---
	b) Bombay	---	---
	c) Export	---	---
8	Processing	---	---
9	Lungi	---	---
10	General (Waste etc.)	---	---
	GRAND TOTAL	---	---

Source - Company's Daily Sales Report.

After knowing all procedure of inventory the researcher comes to know the types of inventory of the Company.

8. TYPES OF INVENTORY : Types of inventory means the various component of inventory. The following are the various components of inventories of this mill.

a. RAW MATERIALS - Raw Materials is the major input into a manufacturing process and from the bulk which gets converted into output. 'Cotton' and 'Man-Made Fibre' is the raw material of the M.C.M. Ltd., Madhavnagar. More than 60% to 65% amount of total purchases is invested into cotton and man-made fibre. The mill has been purchased the different types of cotton i.e. H_4, S_4, J_{34}, Y_1, D.C.H.32 M.C.U.5 and Varlaxmi from various cotton growing states i.e. Maharashtra, Karnataka, Gujarat, Madhya-Pradesh, Tamilnadu, Punjab, Rajasthan and Herayana. Similerly the Man-made Fibre is also of two types, i.e. Viscos and Polyster having number of Qualities viz. 1.2 DN, 1.5 DN, and 3 DN. The success of the mill is depends upon the purchases of raw materials.

Raw materials purchased and consumed and its stock at the end of the period from 1981-82 to 1985-86 is presented in Table 4.27.

It is evident from the table given below that the purchases had a variable trend during the period of study. The figure of purchese was Rs. 566.26 Lacs in 1981-82, it decreased continuously till 1983-84 when it was Rs. 404.02 Lacs. The purchase increased Rs.416.08 Lacs in 1984-85 and further to Rs. 458.18 Lacs in 1985-86.

Similarly the consumption of raw material had a variable trend during 1981-82 to 1985-86. The figure of consumption was Rs. 508.98 Lacs in 1981-82, it decreased continuously upto Rs. 424.86 Lacs in 1983-84. During 1984-85 the consumption increased to Rs. 430.76 and it decreased substantially to Rs. 424.16 Lacs in 1985-86.

T A B L E - 4.27

PURCHASES, CONSUMPTION & STOCK OF RAW MATERIAL

Sr. No.	Year	RUPEES IN LACS		
		Purchases	Consumption	Stock at end
1	1981-82	566.26	508.98	99.88
2	1982-83	530.32	499.06	126.17
3.	1983-84	404.02	424.86	99.80
4	1984-85	416.08	430.76	67.97
5	1985-86	458.18	424.16	96.86
	TOTAL	2374.86	2287.82	490.68
	AVERAGE	474.97	457.56	98.13

Source - Company's Annual Reports.

The stock of raw material at the end varied from Rs. 67.97 Lacs in 1984-85 to Rs. 126.17 Lacs in 1982-83 forming a range of Rs. 58.20 Lacs.

b. WORK-IN-PROCESS - In this type of inventory includes work-in-process of cotton and yarn. It means the inventory blocked in spinning, Weaving,bleaching, dyeing and printing process. The inventory blocked in work-in-process during the period from 1981-82 to 1985-86 in as shown in Table 4.28 .

The table 4.28 indicates that the work-in-process inventory had fluctuating trend during the throughout period of the study. The figure of inventory was Rs. 148.75 in 1981-82, it decreased continuously till 1983-84 when it was Rs. 108.20 Lacs. The inventory increased Rs. 154.84 Lacs in 1984-85 and decreased 130.97 Lacs in 1985-86.

T A B L E - 4.28

WORK-IN-PROCESS INVENTORY

Sr. No.	Year	Rupees in Lacs
1	1981-82	148.75
2	1982.83	128.60
3	1983-84	105.28
4	1984-85	154.84
5	1985-86	130.97
	TOTAL	668.44
	AVERAGE	133.68

Source - Company's Annual Reports.

c. FINISHED GOODS - This type of inventory means finished products lying in store-rooms and waiting for despatch. This inventory include stock of cloth, yarn and waste in sales department. The stock of cloth, yarn and waste at the end during the period 1981-82 to 1985-86 is presented in table 4.29

T A B L E - 4.29

STOCK OF CLOTH, YARN & WASTE

Sr. No.	Year	R U P E E S I N L A C S			
		Cloth	Yarn	Waste	Total
1	1981-82	49.90	40.41	1.08	91.39
2	1982-83	95.09	45.92	0.72	141.93
3	1983-84	116.73	79.12	1.88	197.73
4	1984-85	122.93	35.14	3.55	161.61
5	1985-86	163.49	48.49	2.57	214.55
	TOTAL	548.13	249.08	9.80	807.01
	AVERAGE	109.62	49.81	1.96	161.40

SOURCE - Company's Annual Reports.

It is evident from the Table 4.29 that the stock of cloth had rising trend in all the years of the study. Stock of yarn had an increasing trend for the first three years of the study. It decreased to Rs. 35.14 Lacs in 1984-85. During 1985-86 it increased to Rs.48.49 Lacs On the other hand stock of waste had fluctuating treand throughout the period of the study. It varied from Rs. .72 Lacs in 1982-83 to Rs.3.55 Lacs in 1984-85 forming a range of Rs. 2.83 Lacs.

d. CONSUMABLE STORES & SPARE PARTS - This type of inventory included the materials which acts as catalysts in the production process and are not directly found in output. They are useful for processing work. It included stores, spare parts, colours and chemicals fuel, steam coal, furnace oil, diesel oil etc. The items of consumable stores and spare parts near about 5,000. Therefore the researcher could not listed all the items of the same.

Total consumption and the stock of C.S. at the end during from 1981-82 to 1985-86 is as shown in Table 4.30.

TABLE - 4.30

CONSUMPTION & STOCKOF CONSUMABLE STORES

Sr. No.	Year	RUPEES IN LACS	
		Consumption	Stock at end
1	1981-82	162.84	48.40
2	1982-83	178.04	54.03
3	1983-84	134.42	52.43
4	1984-85	170.20	61.02
5	1985-86	235.14	51.93
	TOTAL	880.64	267.81
	AVERAGE	176.12	53.56

Source - Company's Annual Reports.

It is evident from the Table 4.30 that the consumption of consumable stores had fluctuating trend during the period of the study. On the other hand the stock of consumable stores varied from Rs.48.40 Lacs in 1981-82 to Rs. 61.02 Lacs in 1984-85 with forming a range of Rs. 12.62 Lacs.

9. SIZE OF INVENTORY : The size of inventory is presented in Table 4.31 .

TABLE - 4.31

SIZE OF INVENTORY

Sr. No.	Year	Rupees in Lacs Inventory	Percentage oto current Assets
1	1981-82	388.42	63.65
2	1982-83	450.53	64.25
3	1983-84	455.25	68.40
4	1984-85	445.44	56.31
5	1985-86	494.32	50.81

Source - Company's Annual Reports.

The above Table indicates that the size of inventory during the period from 1981-82 to 1985-86 had an invariable trend of rising except in 1984-85. The percentage of inventory to total current assets had also an invariable trend of rising except in 1984-85 and in 1985-86. The figure of inventory was Rs. 388.42 Lacs in 1981-82, it increased continuously till 1983-84 when it was Rs. 455.25 Lacs. The size of inventory decreased to Rs. 445.44 Lacs in 1984-85 because the company reduced its level of inventory in this year. During 1985-86 the figure of inventory increased to Rs. 494.32 Lac due to increase in the level of inventory. The percentage of inventory to the total current assets

varied from 56.31 in 1984-85 to 68.40 in 1983.84 forming a range of 12.09 percent.

Table 4.31 is supported by graph in figure 4.3 . The figure indicates that the inventory had an increasing trend in all years except in 1984-85.

10. GROWTH OF INVENTORY : To analyse the inventory in depth, the progressive base year percentage of growth of inventory has also been calculated and shown in Table 4.32 .

TABLE - 4.32

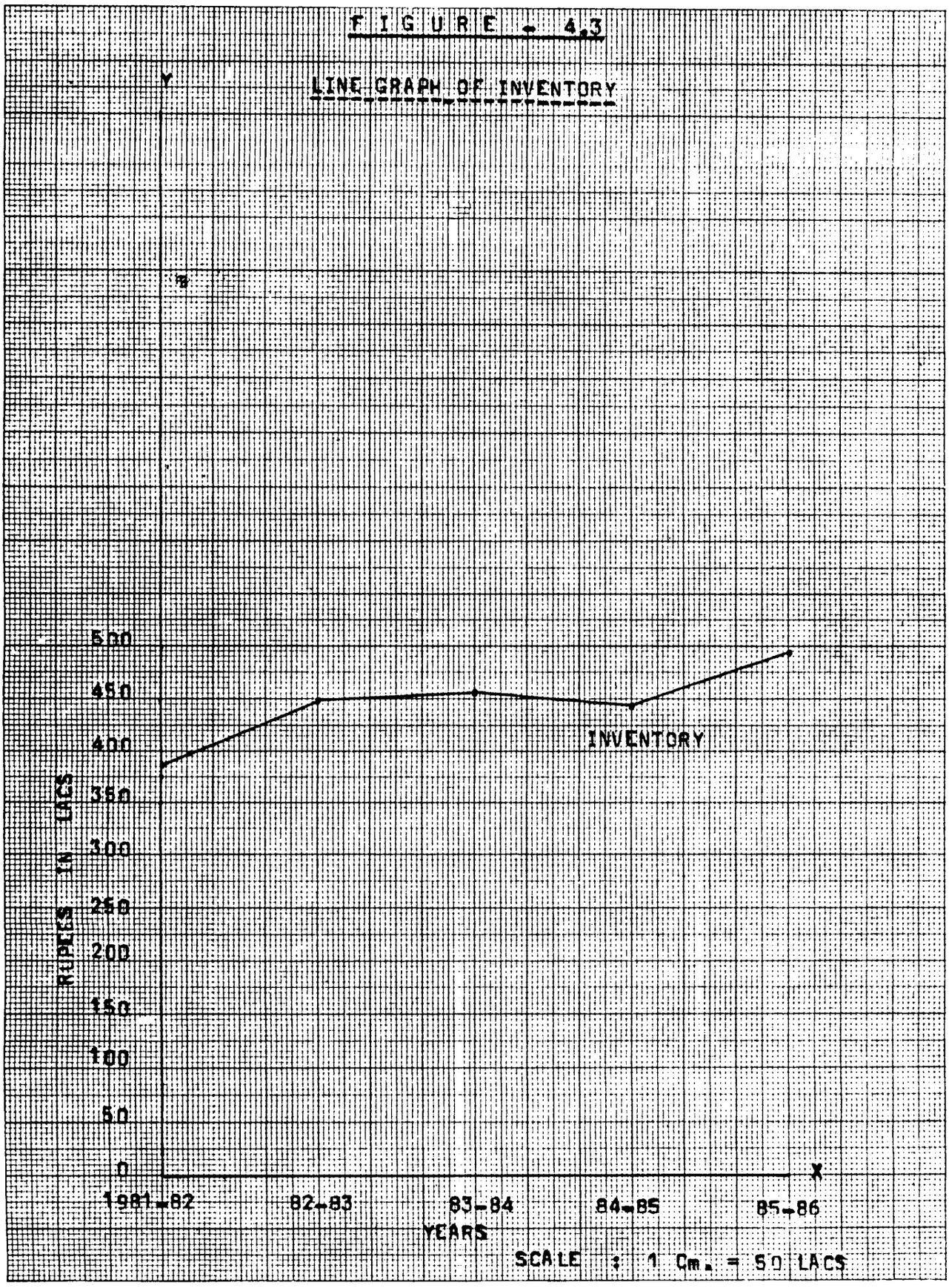
PROGRESSIVE BASE YEAR PERCENTAGE GROWTH OF INVENTORY

Sr. No.	Year	RUPEES IN LACS		Percentage
		Inventory	Growth Increase (+) / Decrease (-)	
1	1981-82	388.42	-	-
2	1982-83	450.53	+ 62.11	+15.99
3	1983-84	455.25	+ 4.72	+ 1.04
4	1984-85	445.44	- 9.81	- 2.15
5	1985-86	494.32	+ 48.88	+10.97

Source - Company's Annual Reports.

It is evident from the above table that the growth of inventory marked a fluctuating trend throughout the period of study. The minute study in terms of the progressive base year percentage of growth however, indicated that the pace of growth of inventory has more steep in 1983-84 as compared to 1985-86. And the pace of growth of inventory has also more steep in 1985-86 as compared to 1982-83. The progressive

FIGURE - 4.3


LINE GRAPH OF INVENTORY
Y
X
500
450
400
350
300
250
200
150
100
50
0
RUPEES IN LACS
INVENTORY
1981-82
82-83
83-84
84-85
85-86
YEARS
SCALE : 1 Cm. = 50 LACS

base year percentage was negative in the year 1984-85 which showed a decrease in the level of inventories as compared to the previous year.

11. TOTAL OUTPUT AND TOTAL COST OF SALES RELATIONSHIP : The rise in the size of total inventory can also be studied in relation to the total output and the total cost of sales. The progressive base year percentages growth in the total output and the total cost of sales of the company have also been calculated. The total output and the total cost of sales alongwith the total inventory during the period from 1981-82 to 1985-86 are shown in Table 4.33.

TABLE - 4.33

TOTAL OUTPUT, TOTAL COST OF SALES AND TOTAL INVENTORY WITH PROGRESSIVE BASE YEAR PERCENTAGES OF GROWTH.

Sr. No.	Year	RUPEES IN LACS		
		Total Output	Total cost of Sales	Total Inventory
1	1981-82	1358.48	1368.74	388.42
2	1982-83	1444.89 (6.36)	1446.83 (5.70)	450.53 (15.99)
3	1983-84	1345.13 (-6.90)	1334.03 (-7.79)	455.25 (1.04)
4	1984-85	1478.36 (9.90)	1552.93 (16.40)	445.44 (-2.15)
5	1985-86	1756.77 (18.83)	1749.18 (12.63)	494.32 (10.97)

Source - Company's Annual Reports.

NOTE - The figures in parenthesis present the progressive base year percentages of growth.

It is evident from the above table that the rise in the total inventory during the first three years of the study i.e. from 1981-82 to 1983-84 was due to an increase in the total output and the total

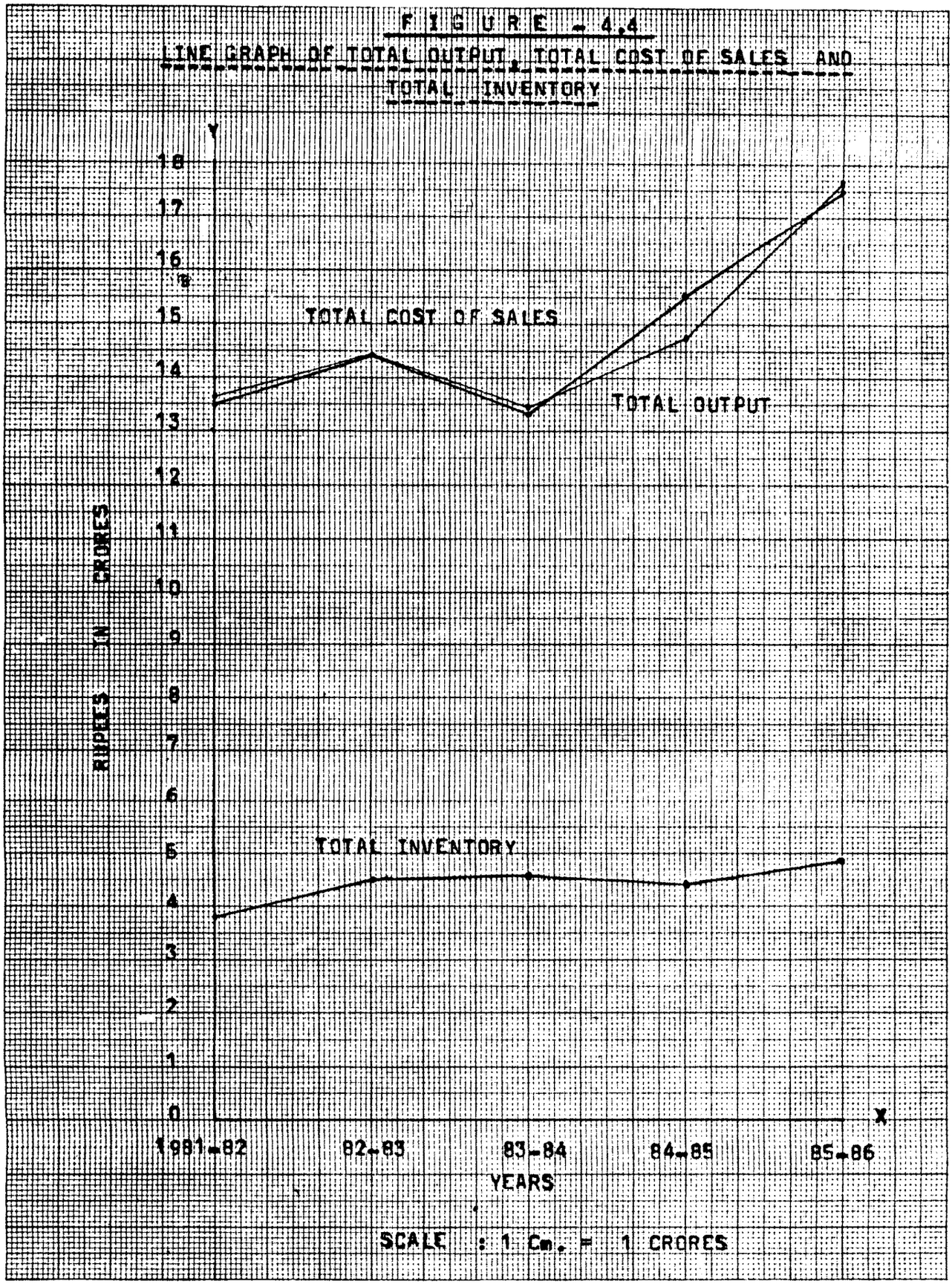
cost of sales simultaneously. Though in 1983-84 the total output and the total cost of sales decreased, but the total inventory increased, because of a significant decrease in the total cost of sales without corresponding decrease in the total output. In the year 1984-85 the level of inventory was reduced as compared to its previous year due to a significant increase in the total cost of sales. However, in 1985-86 the level of inventory increased significantly as compared to the previous year due to a significant increase in the total output. Table 4.33 is supported by graph in figure 4.4 . The figure shows the clear picture of the total output and the total cost of sales alongwith the inventory.

The total output and the total cost of sales shown in the figure 4.4 continuously registered a increasing trend in all years except in 1983-84. Similarly the total inventory had a rising trend in all years except in 1984-85.

12. ADEQUACY OF INVENTORY : The study of the size of inventory indicates that the increase in output and sales had positively contributed to the growth of inventory in the company. However, it does not disclose whether the size of inventory kept by the company had been adequate,inadequate or excessive in relation to their requirements. The study group on Bank credit observed that, "It was not the function of industry to carry stock in excess of what is required for current operations."[2] According to James C Van Horne, "Inventories should be allowed to increase till the resulting saving exceed the total cost of holding the added inventory."[3] Although, it is difficult to lay down a single standard to assess in precise terms the adequacy or otherwise of inventory, there are still some ratio tests which provide a good insight into the extent of overstocking or understocking. Paresh Nath

FIGURE - 4.4

LINE GRAPH OF TOTAL OUTPUT, TOTAL COST OF SALES AND TOTAL INVENTORY



SCALE : 1 Cm. = 1 CRORES

Chattopadhyay is of the view that, " A common determinant is the value of inventory expressed into month cost or value of production."[4] Here in a subsequent section an attempt has been made through analysing various ratios to judge the adequacy of inventory as maintained by the company.

13. STRUCTURE OF INVENTORY : The structure of inventory is usually affected by the nature of the business of a firm. A trading firm will have small investment in raw materials, work-in-process and stores and spares. A significant portion of its total inventory would consist of finished stock only. Public utilities may have high investmentin stores and spares because they provide service. A manufacturing firm has to invest in each component of inventory, viz. raw materials, work-in-process, finished stock and stores and spares. The share of each component in the total inventory varies from industry to industry. However, a proper level has to be maintained among all these compoments to exercise an effective control over investories. "All efforts of the management to control inventories should aim at maintaining various components of inventory at economic levels and in proper proportions."[5] In this company inventory consists of the following four categories.

1) Raw Materials. 2) Work-in-process.

3) Finished Goods. 4) Consumable stores.

Some of the above components need a high degree of control, where as others may not need a very high degree of control. The inventory of raw materials and stores and spares can be reduced to a level where it does not hamper the manufacturing process. Some of the above components of inventory are fastmoving while others are slow-moving.

If excessive funds are tied up in slow moving components, it will not only put financial burden but also effect adversely the liquidity of the firm. Therefore, an efficient management of inventory must try to allocate funds to each component of inventory in an optimal manner.

In this section, an attempt has been made to examine the structure of inventories held by the company. The structure of inventories has been analysed according to its components, viz. raw materials, work-in-process, finished goods and consumable stores. The size of raw materials, work-in-process, finished goods and consumable stores and their percentage to total inventory in the company for the period from 1981-82 to 1985-86 are shown in table 4.34 .

TABLE - 4.34

SIZE OF R.M., W.I.P., F.G. AND CONSUMABLE STORES.

Sr. No.	Particulars	RUPEES IN LACS				
		1981-82	1982-83	1983-84	1984-85	1985-86
1.	Raw Materials	99.88 (25.71)	126.17 (28.00)	99.80 (21.92)	67.97 (15.26)	96.86 (19.59)
2.	Work-in-process	148.75 (38.30)	128.60 (28.55)	105.28 (23.13)	154.84 (34.76)	130.97 (26.49)
3.	Finished Goods	91.39 (23.53)	141.73 (31.46)	197.74 (43.44)	161.61 (36.28)	214.56 (43.41)
4.	Consumable Stores	48.40 (12.46)	54.03 (11.99)	52.43 (11.51)	61.02 (13.70)	51.93 (10.51)
5.	Total Inventory	388.42 (100.00)	450.53 (100.00)	455.25 (100.00)	445.44 (100.00)	494.32 (100.00)

Source - Company's Annual Reports.

NOTE - The figures in paranthesis show the percentage of R.M., W.I.P., F.G., and C.S. to total inventory.

The above table indicate that the size of raw materials inventory marked a fluctuating trend throughout the period of the study.

The figure of raw materials inventory was Rs.99.88 lacs in 1981-82. It increased to Rs. 126.17 lacs in 1982-83. The figure of raw materials decreased to Rs. 99.80 lacs in 1983-84 and it further decreased to Rs. 67.97 lacs in 1984-85. During 1985-86 the figure of raw material increased to Rs. 96.86 lacs because of a significant increase in raw material inventory. The percentage of raw materials inventory to total inventory also marked a fluctuating trend throughout the period. It varied between 15.26 in 1984-85 and 28.00 in 1982-83. The fluctuation in the percentage of raw materials inventory to total inventory took place due to charges in the levels of inventories.

The same table indicates that the size of work-in-process inventory registered a fluctuating trend during the period from 1981-82 to 1985-86. The figure of work-in-process was Rs. 148.75 lacs in 1981-82 which kept decreasing and became Rs. 105.28 lacs in 1983-84. During 1984-85 the figure of work-in-process increased to Rs. 154.84 and it decreased to Rs. 130.97 lacs in 1985-86. The decrease in the level of stock of work-in-process was due to a significant decrese in the amount of work-in-process inventory. The percentage of work-in-process inventory to total inventory also registered a fluctuating trend throughout the period. It varied between 23.13 in 1985-86 and 38.30 in 1981-82 . Its percentage was 26.49 in 1985-86 as compared to 38.30 in 1981-82.

It is evident from the same table that the size of finished goods inventory throughout the period of the study had an invariable trend of rising except in 1984-85. The amount of finished goods inventory was Rs. 91.39 lacs in 1981-82 which kept increasing and became Rs.197.74 lacs in 1983-84. The amount of finished goods decreased to Rs. 161.61 lacs during the year 1984-85. However it again increased to Rs. 214.56 lacs in 1985-86, because of a significant increase in

finished goods inventory. The share of finished goods inventory as a percentage of total inventory marked a fluctuating trend throughout the period of the study. It varied between 23.53 in 1982-82 and 43.44 in 1983-84, forming a range of 19.91. The fluctuation in the percentage of finished goods to total inventory was due to the changes in the level of other components of inventory.

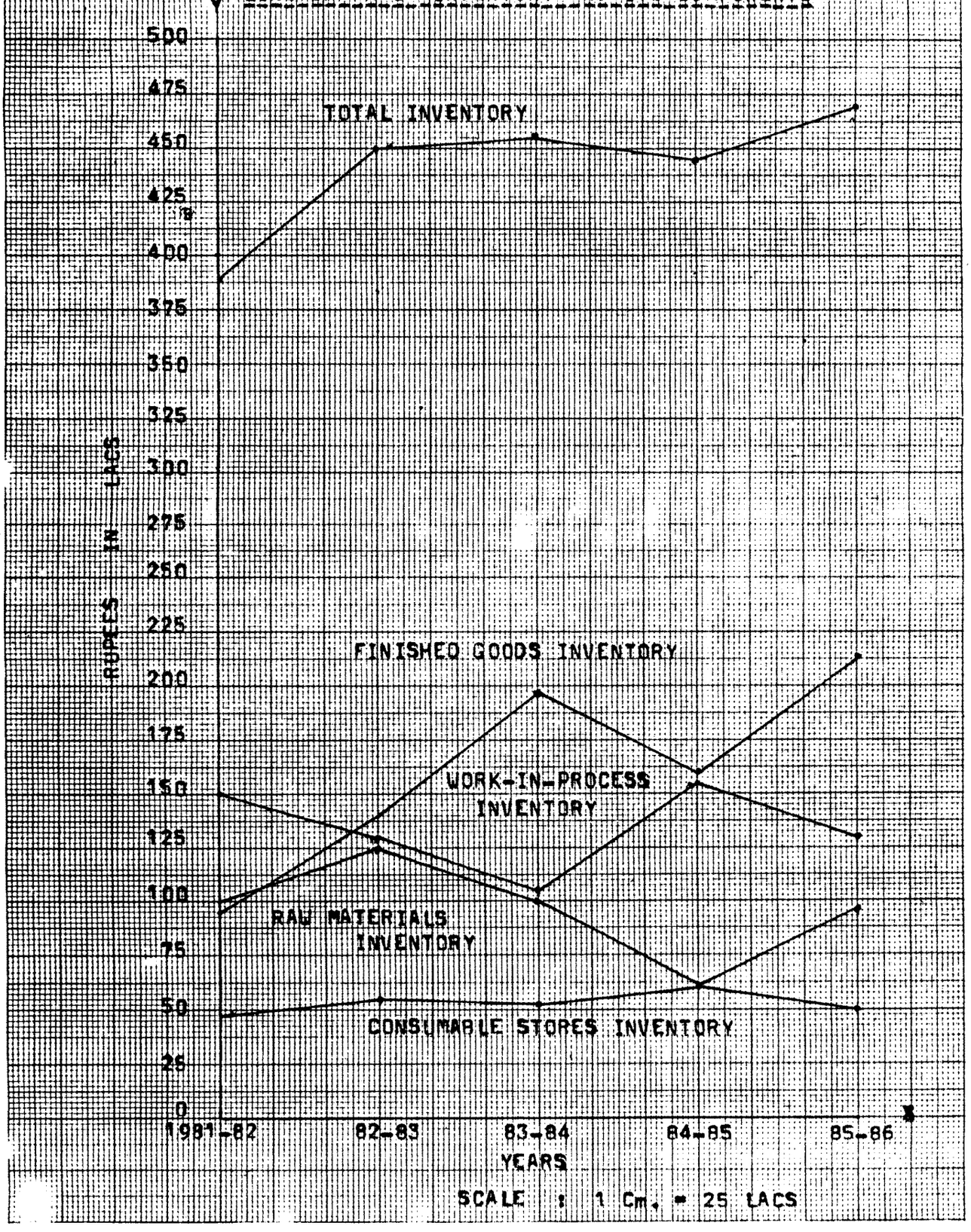
The size of consumable stores inventory as indicated in the same table i.e. table 4.34 had a fluctuating trend throughout the period of the study. The absolute figure consumable stores inventory was Rs. 48.40 lacs in 1981-82 which increased and became Rs. 54.03 lacs in 1982-83. During 1983-84 the figure of consumable stores decreased to Rs. 52.43 lacs and it increased to Rs. 61.02 in 1984-85, thereafter it substantially decreased to Rs. 51.93 lacs in 1985-86. On the other hand the percentage of consumable stores inventory to total inventory had an invariable trend of decline throughout the period except in 1984-85. The percentage of consumable stores inventory was 12.46 in 1981-82 which decreased constantly and became 10.51 in 1985-86. However the percentage of consumable stores inventory was increased to 13.70 in 1984-85.

Table 4.34 is supported by graph in figure 4.5 . The figure gives the clear picture of the structure of inventories held by the company according to its components viz., raw materials, work-in-process, finished goods and consumable stores during the period from 1981-82 to 1985-86.

The figure indicates that the total inventory has an increasing trend in all years except in 1984-85. Raw Materials inventory registered a fluctuating trend throughout the period of the study,

FIGURE - 4.5

LINE GRAPH OF INVENTORY AND ITS COMPONENTS



Work-in-process inventory marked a variable trend during the period form 1981-82 to 1985-86. Finished goods inventory continuously registered a rising trend except in 1984-85. And consumable stores inventory had a variable trend throughout the period of the study.

14. INVENTORY CONTROL SYSTEM : At present the company has followed the following techniques of inventory control.

1. FIXATION OF MINIMUM AND MAXIMUM LEVELS - The Cotton Purchase Manager, on the basis of his experience and as per production target and other influencing factors sets maximum and minimum level for raw materials i.e. Cotton and Man-made Fibre. On the other hand the Stores department incharge, on the basis of his experience and as per requirements of various departments and considering other influencing factors sets maximum and minimum inventory levels for consumable stores and other spare parts. He sets the inventory levels only for the most consumable items. In this regard hundred items are daily and mostly consumable.

2. PERPETUAL INVENTORY CONTROL SYSTEM - It represents a system of records maintained by the controlling department of the company. which reflects the physical movement of stocks and their current balance. Under this method, stores balances are recorded after every receipt and issue.

A perpetual inventory has been checked by a programme of continuous stock taking. But the two terms, 'Perpetual Inventory' and 'Continuous Stock'taking' should not be considered synonymous. Perpetual inventory means the system of records, where as continuous stock taking means the physical checking of these records with actual stock.

The above stock-taking programme has been divided into a number of functions, such as counting, weighing, measuring, listing etc. and the work has been distributed to different members of the team. Different section of the store have been taken up by rotation. For this purpose a list showing priority of sections or stock items or both have been prepared. Advance notice has been given to store-keeping staff concerned whenever a particular stock item is verified each day. Stores received but awaiting inspection has not been mixed up with regular stores at the time of verification. The physical stock, after counting, weighing or measuring, as the case may be is properly recorded. For this purpose separate stock verification sheets have been maintained to record the results of stock verification. The sheets are maintained date-wise so as to indicate a chronological list of items verified. The records are maintained up-to-date and the balance shown by the stores ledger are agreed with ground balance. If there are discrepancies, proper investigation has been made and a report has been submitted. If the physical balance is greater than the balance shown by the stores ledger, a Debit Note has been prepared and stock records have been adjusted accordingly. Similarly, in case of shortage of of stock, a credit note has been prepared.

3. CLASSIFICATION AND CODIFICATION OF MATERIALS - The classification and codification of materials have been introduced by the company recently. The classification of materials has been made department wise. For this purpose separate 24 department wise store ledger have been maintained. These department wise ledgers are as already listed in table 4.18. But the codification of materials have not been made till today. It is only under consideration of the company.

4. INFORMATION SYSTEM - The company has been followed the information system of inventory reporting. For this purpose the Goods Receipt Note has been prepared and has been given to the buyers to know the receipts of the material. Department wise daily valuation of consumption has been prepared. The following monthly statements have been prepared for the management meeting.

a. Receipt and Issue checking statement.

b. Department wise recording statement.

c. Usuage Entry Statement.

5. VALUATION OF INVENTORY - In accordance with the raw materials inventory i.e. Cotton and Man-made Fibre the valuation has been made considering the cost price of the material. But in accordance with the Consumable Stores Inventory the valuation has been made through the FIFO method of inventory valuation. Instead of these two methods the company has not been followed the other various methods of inventory valuation.

4.3 ANALYSIS OF WORKING CAPITAL :

In the previous chapter it is clearly discussed why the analysis of working capital is very essential. There are many reasons of analysis of working capital. Moreover to sought the answers of the specific questions about working capital management of the company. The analysis of working capital has been made with some relevant ratios of working capital. These ratios would finally determine how current assets and current liabilities have been managed by the company during the period from 1981-82 to 1985-86. Here an attempt has also been made through analysing various ratios to judge the adequacy of inventory as maintained by the company.

Analysis of working capital has been made through the following two ways.

1. Financial working capital.
2. Physical working capital. (Ratio analysis in Inventory Management)

1. FINANCIAL WORKING CAPITAL : Under this way of analysis of working capital the following ratios have been calculated in detail.

a. Current Ratio. b. Quick Ratio or Acid Test Ratio
c. Working capital Turnover Ratio. d. Current Assets Turnover Ratio.

The above ratios have been studied in detail and the comments made thereon.

a. CURRENT RATIO : This ratio has been calculated by the following formula.

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

Table 4.35 shows the current ratio of the company during the period from 1981-82 to 1985-86.

TABLE - 4.35

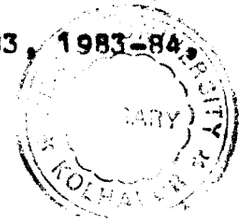
CURRENT RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Current Assets	Current Liabilities	
1	1981-82	610.17	613.04	0.99:1
2	1982-83	701.25	702.35	1:1
3	1983-84	665.56	838.96	0.79:1
4	1984-85	791.01	926.15	0.85:1
5	1985-86	972.71	1162.05	0.83:1
	TOTAL	3740.70	4242.55	0.88:1
	AVERAGE	748.14	848.51	0.88:1

Source - Company's Annual Reports.

'A Current Ratio of 2:1 is considered as satisfactory'[6]. However the size of working capital depends upon many factors, therefore a standard or a common current ratio can not be treated as optimum for all types of Business, Industrial and Trading undertakings. 'But the bankers in India and abroad treat a minimum of 2 as a standard'.[7]

It is evident from the above table that the table does not justify this standard of current ratio as the current ratio has been ranging between 0.79:1 to 1:1 during the period of the study. On an average the current ratio is 0.88:1. The current ratios are 0.99:1, 1:1, 0.79:1, 0.85:1 and 0.83:1 in the year 1981-82, 1982-83, 1983-84,



1984-85, and 1985-86 respectively. These figures indicate that the company is trying to keep current ratio at a very low level. But it is very difficult to generalise that the current ratio must be maintained at 2:1 because most of the units did not have a fixed policy regarding their liquidity.

It is also said that as regards the industrial concerns with larger investments in fixed assets and very low activity cycle, the ideal level of this ratio may fall from 2:1 to 1.5:1 or around even below 1.5:1. 'Sometimes a current ratio lower than 2:1,happens to be the result of an effective utilization of working capital as well.'[8]

b. QUICK RATIO OR ACID TEST RATIO : This ratio is calculated by the following formula .

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

Where,

Quick Assets = Current Assets - (Stock + Prepaid Expenses)

Quick Liabilities = Current Liabilities -(Overdrafts + Accrued Exps)

This ratio is presented in Table 4.36.

'A quick ratio of 1:1 is considered a fair indication of the good current financial condition of a business enterprise.'[9] But table 4.36 does not justify this standard of quick ratio as the quick ratio has been ranging between 0.47:1 to 0.86:1 during the period from 1981-82 to 1985-86. The average quick ratio is 0.72:1. The quick ratios are 0.74:1, 0.66:1, 0.47:1 , 0.85:1 and 0.86:1 in the year 1981-82, 1982-83, 1983-84, 1984-85 and 1985-86 respectively. These figures

TABLE - 4.36

QUICK RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Quick Assets	Quick Liabilities	
1	1981-82	219.56	293.21	0.74:1
2.	1982-83	248.79	374.00	0.66:1
3	1983-84	208.28	435.51	0.47:1
4	1984-85	343.27	400.56	0.85:1
5	1985-86	475.44	552.06	0.86:1
	TOTAL	1495.34	2055.34	0.72:1
	AVERAGE	299.06	411.06	0.72:1

Source - Company's Annual Reports.

A. CALCULATION OF QUICK ASSETS

Sr. No.	Year	Current Assets	Stock	Prepaid Expenses	Quick Assets
1	1981-82	610.17	388.42	2.19	219.56
2	1982-83	701.25	450.53	1.93	248.79
3	1983-84	665.56	455.25	2.03	208.28
4	1984-85	791.01	445.44	2.30	343.27
5	1985-86	972.71	494.31	2.96	475.44

Theee figures indicate that the company has not been able to meet their current obligations i.e. quick liabilities from quick assets as in all the years over all quick ration is below 1:1 . As quick liabilities are more than the quick assets the company has not been financially strong. So the liquidity position of the company is very poor.

B. CALCULATION OF QUICK LIABILITIES :

Sr. No.	Year	Current Liabilities	Overdrafts	Accrued Expe.	Quick Liab.
1	1981-82	613.04	319.42	0.41	293.21
2	1982-83	702.35	306.36	21.99	374.00
3	1983-84	838.96	343.08	60.37	435.51
4	1984-85	926.15	463.29	62.30	400.56
5	1985-86	1162.05	537.48	72.51	552.06

c. WORKING CAPITAL TURNOVER RATIO : This ratio has been calculated by the following formula.

$$\text{WORKING CAPITAL TURNOVER RATIO} = \frac{\text{Net Sales}}{\text{Net Working Capital}}$$

This ratio is as shown in the Table 4.37.

TABLE - 4.37

WORKING CAPITAL TURNOVER RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Net Sales	Net Working Capital	
1	1981-82	1433.59	(2.87)	(499.50)
2	1982-83	1536.67	(1.10)	(1396.97)
3	1983-84	1275.07	(173.40)	(7.35)
4	1984-85	1525.03	(135.14)	(11.28)
5	1985-86	1677.09	(189.34)	(8.85)
	TOTAL	7447.45	(501.45)	(14.83)
	AVERAGE	1489.49	(100.37)	(14.83)

Source - Company's Annual Reports.

NOTE - Figures in bracket should be considered as (-) figures.

The working capital turnover ratio as shown in Table 4.37 continuously registered a fluctuating trend throughout the period of the study. The turnover of working capital varied form (1396.97) in 1982-83 to (7.35) in 1983-84, forming a range of (1389.62). The turnover ratio was (499.50) in 1981-82, which decreased to (1396.97) in 1982-83. In 1983-84 there has been significant increase in the turnover ratio i.e. (7.35) due to a significant decrease in the N.W.C. of the company. During 1984-85 the turnover ratio decreased substantially and was (11.28). In 1985-86 it improved and became (8.85). The reason of constant variation in the working capital turnover ratio was that the constant increase in net sales in all the years of the study except in 1983-84 and 1984-85, while the net working capital had a constantally increasing and decreasing trend during the overall period of the study.

d. CURRENT ASSETS TURNOVER RATIO : This ratio has been calculated by the following formula.

$$\text{Current Assets Turnover Ratio} = \frac{\text{Sales Revenue}}{\text{Current Assets}}$$

Table 4.38 shows the Current Assets Turnover Ratio of the company during the period from 1981-82 to 1985-86.

It is evident from the table 4.38 that the current assets turnover ratio continuously registered a declining trend throughout the period of the study expept in 1984-85. The turnover of current assets varied from 1.72 in 1985-86 to 2.34 in 1981-82, forming a range of 0.62. The turnover ratio was 2.34 in 1981-82, which constantly decreased upto 1983-84 and was 2.19 and 1.91 respectively. The reason

TABLE - 4.38

CURRENT ASSETS TURNOVER RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Sales Revenue	Current Assets	
1	1981-82	1433.59	610.17	2.34
2	1982-83	1536.67	701.45	2.19
3	1983-84	1275.07	665.56	1.91
4	1984-85	1525.03	791.01	1.92
5	1985-86	1677.09	972.71	1.72
	TOTAL	7447.45	3740.70	1.99
	AVERAGE	1489.49	748.14	1.99

Source - Company's Annual Reports.

for the decrease in the turnover ratio during the first three years of the study was the increase in the level of current assets without a corresponding significant increase in sales. In 1984-85 there has been a increase in the turnover ratio i.e. 1.92 due to a significant increase in the sales of the company. During 1985-86 the turnover ratio decreased the substantially and was 1.72 due to a substantial increase in the current assets of the company.

2. PHYSICAL WORKING CAPITAL (RATIO ANALYSIS IN INVENTORY MANAGEMENT) : Under this way of analysis of working capital the following rations have been calculated in detail.

a. Debtors Turnover Ratio.

b. Creditors Turnover Ratio.

c. Inventory to Working Capital Ratio.

d. Net Sales to Inventory Ratio.

e. Inventory Turnover Ratio.

f. Percentage of Inventory Turnover.

The above ratios have been studied in detail and comments made thereon.

a. DEBTORS TURNOVER RATIO : This ratio has been calculated by the following formula.

$$\text{Debtors Turnover Ratio} = \frac{\text{Average Debtors}}{\text{Average Daily Credit Sales}}$$

Where,

$$\text{Average Debtors} = \frac{\text{Opening Debtors} + \text{Closing Debtors.}}{2}$$

$$\text{Average Daily Sales} = \frac{\text{Total Credit Sales}}{365}$$

Table 4.39 shows the Debtors Turnover Ratio during the period from 1981-82 to 1985-86.

TABLE - 4.39

DEBTORS TURNOVER RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Days
		Average Debtors	Average Daily Credit Sales	
1	1981-82	105.92	3.90	27.15
2.	1982-83	128.46	4.18	30.73
3	1983-84	125.54	3.47	36.17
4	1984-85	174.29	4.15	41.99
5	1985-86	221.55	4.57	48.47
	TOTAL	755.76	20.27	37.28
	AVERAGE	151.15	4.05	37.28

Source - Company's Annual Reports.

NOTE : As cash sales and credit sales are not maintained separately, it is assumed as per the informations given by accounting authority of the company thatthe cash sales are 0.5% and credit sales are 99.5% of the total sales.

A. CALCULATION OF AVERAGE DEBTORS :

$$\text{Average Debtors} = \frac{\text{Opening Debtors} + \text{Closing Debtors}}{2}$$

$$1981\text{-}82 = \frac{86.23 + 125.62}{2} = 105.92$$

$$1982\text{-}83 = \frac{125.62 + 131.30}{2} = 128.46$$

$$1983\text{-}84 = \frac{131.30 + 119.79}{2} = 125.54$$

$$1984\text{-}85 = \frac{119.79 + 228.80}{2} = 174.29$$

$$1985\text{-}86 = \frac{228.80 + 214.30}{2} = 221.55$$

B. CALCULATION OF AVERAGE DAILY CREDIT SALES. :

$$\text{Average Daily Credit Sales} = \frac{\text{Total Credit Sales}}{365}$$

$$1981\text{-}82 = \frac{1426.42}{365} = 3.90$$

$$1982\text{-}83 = \frac{1528.99}{365} = 4.18$$

$$1983\text{-}84 = \frac{1268.69}{365} = 3.47$$

$$1984\text{-}85 = \frac{1517.40}{365} = 4.15$$

$$1985\text{-}86 = \frac{1668.70}{365} = 4.57$$

The Debtors Turnover Ratio as shown in Table 4.39 continuously registered a rising trend throughout the period of the study. The turnover of debtors varied from 27.15 days in 1981-82 to 48.47 days in 1985-86, forming range of 21.32 days. The turnover ratio was 27.15 in 1981-82, which constantly increased upto 1985-86 and was 30.73,

36.17, 41.99 and 48.47 respectively. The reason of a constant increasing trend in the turnover of debtors was that the relative speed of increase in average debtors in all the years except in 1983-84 was higher than the speed of increase in average daily credit sales in all the years except in 1983-84 and 1984-85 . These increasing changes in the turnover ratio indicate that the company's credit policy or its ability to collect its receivables is changing year to year.

b. CREDITORS TURNOVER RATIO : This ratio is calculated by the following formula.

$$\text{Creditors Turnover Ratio} = \frac{\text{Average Creditors}}{\text{Average Daily Credit Purchases}}$$

Where,

$$\text{Average Creditors} = \frac{\text{Opening Creditors} + \text{Closing Creditors}}{2}$$

$$\text{Average Daily Credit Purchases} = \frac{\text{Total Credit Purchases}}{365}$$

It is evident from the Table 4.40 that the creditors Turnover Ratio has a variable trend throughout the period of the study. The turnover of creditors varied from 123.67 days in 1981-82 to 223.44 days in 1983-84, forming a range of 99.77 days. The turnover ratio was 123.67 in 1981-82. The ratio increased to 151.69 in 1982-83 and it further increased significantally to 223.44 in 1983-84. The reason for the increase in the turnover ratio during the first three years of the study was that the relative speed of increase in average creditors was higher than the speed of increase in average daily credit purchases. In 1984-85 there has been a significant decrease in the turnover ratio i.e. 180.57 due to a significant increase in the average daily credit

This ratio is presented in Table 4.40 .

TABLE - 4.40

CREDITORS TURNOVER RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Days
		Average Creditors	Average Daily Credit Purchases	
1	1981-82	211.49	1.71	123.67
2	1982-83	253.33	1.67	151.69
3	1983-84	321.76	1.44	223.44
4	1984-85	325.04	1.80	180.57
5	1985-86	367.47	2.01	182.82
	TOTAL	1479.09	8.63	171.38
	AVERAGE	295.81	1.72	171.38

Source - Company's Annual Reports.

Note: - As cash purchases and credits purchses are not maintained seperately, It is assumed, as per the informations given by accounting authority of the company that the cash purchases are 25% and credits purchases are 75% of the total purchases.

A. CALCUTION OF AVERAGE CREDITORS :

$$\text{Average Creditors} = \frac{\text{Opening Creditors} + \text{Closing Creditors}}{2}$$

$$1981\text{-}82 = \frac{205.68 + 217.31}{2} = 211.49.$$

$$1982\text{-}83 = \frac{217.31 + 289.35}{2} = 253.33.$$

$$1983\text{-}84 = \frac{289.35 + 354.17}{2} = 321.76.$$

$$1984\text{-}85 = \frac{354.17 + 295.91}{2} = 325.04.$$

$$1985\text{-}86 = \frac{295.91 + 439.04}{2} = 367.47.$$

B. CALCULATION OF AVERAGE DAILY CREDIT PURCHASES :

$$\text{Average Daily Credit Purchases} = \frac{\text{Total Credit Purchases}}{365}$$

$$1981\text{-}82 = \frac{626.43}{365} = 1.71$$

$$1982\text{-}83 = \frac{611.75}{365} = 1.67$$

$$1983\text{-}84 = \frac{528.62}{365} = 1.44$$

$$1984\text{-}85 = \frac{657.40}{365} = 1.80$$

$$1985\text{-}86 = \frac{735.71}{365} = 2.01$$

purchases of the company. During 1985-86 the turnover ratio increased slightly and was 182.82 due to a relative increase in the both. These variable figures of turnover ratio indicate that the company is enjoying better credit period from its suppliers.

c. INVENTORY TO WORKING CAPITAL RATIO : This ratio has been calculated by the following formula.

$$\text{Inventory to Working Capital Ratio} = \frac{\text{Closing Inventory}}{\text{Net Working Capital}}$$

Table 4.41 shows the ratio of inventory to working capital.

The Inventory to working capital Ratio as shown in Table 4.41 continuously registered a fluctuating trend throughout the period of the study. The ratio of inventory to working capital varied from (409.57) in 1982-83 to (2.61) in 1985-86, forming a range of (406.96). The ratio was (135.33) in 1981-82 which decreased substantially to (409.57) in 1982-83, the lowest of period of the study. In 1983-84

TABLE - 4.41

INVENTORY TO WORKING CAPITAL RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Closing Inventory	Net Working Capital	
1	1981-82	388.42	(2.87)	(135.33)
2	1982-83	450.53	(1.10)	(409.57)
3	1983-84	455.25	(173.40)	(2.62)
4	1984-85	445.44	(135.14)	(3.29)
5	1985-86	494.31	(189.34)	(2.61)
	TOTAL	2233.95	(501.85)	(4.45)
	AVERAGE	446.79	(100.37)	(4.45)

Source - Company's Annual Reports.

NOTE - Figures in bracket should be considered as (-) figures.

there has been a significant increase in the inventory to working capital ratio i.e. (2.62) due to a significant decrease in the net working capital of the company. During 1984-85 the ratio decreased substantially and was (3.29). In 1985-86 it improved and became (2.61), the highest of the period of the study. The reason of constant fluctuation in the ratio of inventory to working capital was that the constant increase in closing inventory in all the years except in 1984-85, while the net working capital had constantally a variable trend during the period of the study.

d. NET SALES TO INVENTORY RATIO : This ratio is calculated by the following formula.

$$\text{Net Sales to Inventory Ratio} = \frac{\text{Net Sales}}{\text{Closing Inventory.}}$$

This ratio is ass shown in the Table 4.42 .

TABLE - 4.42

NET SALES TO INVENTORY RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Net Sales	Closing Inventory	
1	1981-82	1433.59	388.42	3.69
2	1982-83	1536.67	450.53	3.41
3	1983-84	1275.07	455.25	2.80
4	1984-85	1525.03	445.44	3.42
5	1985-86	1677.09	494.31	3.39
	TOTAL	7447.45	2233.95	3.33
	AVERAGE	1489.49	446.79	3.33

Source - Company's Annual Reports.

It is evident from the Table 4.42 that the ratiom of net sales to inventory has continuously a variable trend throughout the period of the study. It varied from 2.80 times in 1983-84 to 3.69 times in 1981-82, forming a range of 0.89 times. It was 3.69 times in 1981-82. The ratio decreased to 3.41 times in 1982-83 and it further decreased to 2.80 times in 1983-84 . The net sales to m inventory ratio increased significantly to 3.42 times in 1984-85. During 1985-86 the ratio decreased slightly and became 3.39 times. The reason for the decrease in the ratio of net sales to inventory during the first three years of the study was the significant increase in the level of sales except in 1983-84 without a corresponding significant increase ink the inventory, while the reason for the increase in the ratio during 1984-85 was a substantial decrease in the inventory of the company. In 1985-86 due to a significant increse in sales without corresponding significant increase in the inventory the ratio

of net sales to inventory has been slightly decreased.

e. INVENTORY TURNOVER RATIO : This ratio has been calculated by the following formula.

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

Where,

$$\text{Average Inventory} = \frac{\text{Opening Inventory} + \text{Closing Inventory}}{2}$$

This ratio is presented in Table 4.43 .

TABLE - 4.43

INVENTORY TURNOVER RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Net Sales	Average Inventory	
1	1981-82	1433.59	325.45	4.40
2	1982-83	1536.67	419.48	3.66
3	1983-84	1275.07	452.89	2.81
4	1984-85	1525.03	450.35	3.38
5	1985-86	1677.09	469.88	3.56
	TOTAL	7447.45	2118.05	3.51
	AVERAGE	1489.49	423.61	3.51

Source - Company's Annual Reports.

CALCULATION OF AVERAGE INVENTORY :

$$\text{Average Inventory} = \frac{\text{Opening Inventory} + \text{Closing Inventory}}{2}$$

$$1981\text{-}82 = \frac{262.47 + 388.42}{2} = 325.45$$

$$1982\text{-}83 = \frac{388.42 + 450.53}{2} = 419.48$$

$$1983\text{-}84 = \frac{450.53 + 455.25}{2} = 452.89$$

$$1984\text{-}85 = \frac{455.25 + 445.44}{2} = 450.35$$

$$1985\text{-}86 = \frac{445.44 + 494.31}{2} = 469.88$$

The Inventory Turnover Ratio as shown in the Table 4.43 continuously registered a fluctuating trend throughout the period of the study. The turnover of inventory varied between 2.81 times in 1983-84 and 4.40 times in 1981-82. It had a downward trend during the first three years of the study i.e., from 1981-82 to 1983-84. However, it had a upward trend during the last two years of the study. The inventory turnover ratio was 4.40 times in 1981-82, it decreased continuously till 1983-84 when it was 2.81 times. However, the turnover of inventory improved to 3.38 times in 1984-85 and further to 3.56 times in 1985-86. The reason for the decrease in the turnover ratio during the first three years of the study was the significant increase in the level of inventory without a corresponding significant increase in sales, while the reason for the increase in the turnover ratio during the last two years of the study was a substantial increase in sales of the company.

f. PERCENTAGE OF INVENTORY TURNOVER : This ratio is calculated by the following formula.

$$\text{Percentage of Inventory Turnover} = \frac{\text{Average Inventory}}{\text{Net Sales}} \times 100$$

This ratio is presented in Table 4.44.

TABLE - 4.44

PERCENTAGE OF INVENTORY TURNOVER

Sr. No.	Year	RUPEES IN LACS		Ratio in Percentage
		Average Inventory	Net Sales	
1	1981-82	325.45	1433.59	22.70
2	1982-83	419.48	1536.67	27.29
3	1983-84	452.89	1275.07	35.51
4	1984-85	450.35	1525.03	29.53
5	1985-86	469.88	1677.09	28.01
	TOTAL	2118.05	7447.45	28.43
	AVERAGE	423.61	1489.49	28.43

Source - Company's Annual Reposts.

It is evident from the above Table that the percentage of Inventory Turnover had continuously a variable trend throughout the period of the study. The percentage of inventory turnover varied from 22.70 percent in 1981-82 to 35.51 percent in 1983-84, forming a range of 12.81 percent. It had a upward trend during the first three years of the study i.e. from 1981-82 to 1983-84. However, it had a downward trend during the last two years of the study. The percentage of inventory turnover was 22.70 percent in 1981-82, which constantly increased upto 1983-84 and was 27.29 percent and 35.51 % respectively. However, the percentage of inventory turnover decreased significantly to 29.53 percent in 1984-85 and further slightly to 28.01 % in 1985-86.

In order to get purposeful information, the Inventory Turnover Ratio and the percentage of Inventory Turnover has been analysed, for each individual item or for each group of items or accord-

ing to its components,viz., raw materials, work-in-process, finished goods, and consumable stores. Therefore, the following ratios have been calculated in detail.

a. Raw Materials Inventory Turnover Ratio.

b. Work-in-Process Inventory Turnover Ratio.

c. Finished Goods Inventory Turnover Ratio.

d. Consumable Stores Inventory Turnover Ratio.

The above ratios have been studied in detail and comments made thereon.

a. RAW MATERIALS INVENTORY TURNOVER RATIO :

This ratio has been calculated by the following formula.

$$\text{Raw Materials Inventory Turnover Ratio} = \frac{\text{Cost of R.M. consumed}}{\text{Average R.M. Inventory.}}$$

Where,

$$\text{Average Raw Materials Inventory} = \frac{\text{Opening R.M.Inventory} + \text{Closing R.M. Inventory}}{2}$$

This ratio is as shown in the Table 4.45.

TABLE - 4.45

RAW MATERIAL INVENTORY TURNOVER RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Cost of R.M. Consumed	Average R.M. Inventory	
1	1981-82	508.98	71.90	7.07
2	1982-83	499.06	113.02	4.41
3	1983-84	424.86	112.98	3.76
4	1984-85	430.76	83.88	5.13
5	1985-86	424.16	82.41	5.14
	TOTAL	2287.82	464.19	4.92
	AVERAGE	457.56	92.83	4.92

Source - Company's Annual Reports.

CALCULATION OF AVERAGE RAW MATERIAL TURNOVER :

$$\text{Average Raw Materials Inventory} = \frac{\text{Opening R.M. Inventory} + \text{Closing R.M. Inventory}}{2}$$

$$1981\text{-}82 = \frac{43.92 + 99.88}{2} = 71.90$$

$$1982\text{-}83 = \frac{99.88 + 126.17}{2} = 113.02$$

$$1983\text{-}84 = \frac{126.17 + 99.80}{2} = 112.98$$

$$1984\text{-}85 = \frac{99.80 + 67.97}{2} = 83.88$$

$$1985\text{-}86 = \frac{67.97 + 96.86}{2} = 82.41$$

The Raw Materials Inventory Turnover Ratio as presented in the table 4.45 continuously marked a fluctuating trend throughout the period of the study. The turnover of raw materials inventory varied between 3.76 times in 1983-84 and 7.07 times in 1981-82. It had a downward trend during the first three years of the study i.e. from 1981-82 to 1983-84. However, it had a upward trend during the last two years of the study. The raw materials inventory turnover ratio was 7.07 times in 1981-82, which constantly decreased upto 1983-84 and was 4.41 times and 3.76 times respectively. However, the turnover of raw materials inventory in creased significantly to 5.13 times in 1984-85 and further slightly to 5.14 times in 1985-86. The reason for the decrease in the turnover ratio during the first three years of the study was the significant decrease in the cost of raw materials consumed without a corresponding decrease in the average raw materials inventory, while the reason for the increase in the turnover ratio during the last two years of the study was substantial

decrease in the level of average raw materials inventory.

b. WORK-IN-PROCESS INVENTORY TURNOVER RATIO :

This ratio is calculated by the following formula.

$$\text{Work-in-Process Inventory Turnover Ratio} = \frac{\text{Cost of Production (Mfg)}}{\text{Average Work-in-Process Inventory}}$$

Where,

$$\text{Average Work-in-Process Inventory} = \frac{\text{Opening Work-in-Proce Inventory} + \text{Closing W.I.P.I}}{2}$$

Table 4.46 shows the Work-in-Process Inventory Turnover Ratio during the period 1981-82 to 1985-86.

TABLE - 4.46

WORK-IN-PROCESS INVENTORY TURNOVER RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Cost of Production	Average Work-in-Process Inventory	
1	1981-82	1358.48	129.14	10.51
2	1982-83	1444.89	138.67	10.41
3	1983-84	1345.13	116.94	11.50
4	1984-85	1478.36	130.06	11.36
5	1985-86	1756.77	142.90	12.29
	TOTAL	7383.63	657.71	11.12
	AVERAGE	1476.72	131.54	11.12

Source - Company's Annual Reports.

CALCULATION OF AVERAGE WORK-IN-PROCESS INVENTORY :

$$\text{Average Work-in-Process Inventory} = \frac{\text{Opening Work-in-process Inventory} + \text{Closing W.i.P Inventory}}{2}$$

$$1981\text{-}82 = \frac{109.54 + 148.75}{2} = 129.14$$

$$1982\text{-}83 = \frac{148.75 + 128.60}{2} = 138.67$$

$$1983\text{-}84 = \frac{128.60 + 105.28}{2} = 116.94$$

$$1984\text{-}85 = \frac{105.28 + 154.84}{2} = 130.06$$

$$1985\text{-}86 = \frac{154.84 + 130.97}{2} = 142.90$$

The Work-in-Process Inventory Turnover Ratio as shown in table 4.46 continuously registered a fluctuating trend throughout the period of the study. The turnover of work-in-process inventory varied from 10.41 times in 1982-83 to 12.29 times in 1985-86 forming a range of 1.88 times. The turnover ratio was 10.51 times in 1981-82, which decreased slightly to 10.41 times in 1982-83, the lowest of the period of the study. In 1983-84 there has been an increase in the turnover ratio i.e. 11.50 times due to a significant decrease in the level of average work-in-process inventory of the company. During 1984-85 the turnover ratio decreased slightly and was 11.36 times. In 1985-86 it improved and became 12.29 times, the highest of the period of the study. The reason of constant fluctuation in the ratio of work-in-process Inventory turnover was that the constant increase in the cost of production in all the years except 1983-84, while the level of average work-in-process inventory had constantly a variable trend during the overall period of the study.

c. FINISHED GOODS INVENTORY TURNOVER RATIO :

This ratio is calculated by the following formula.

$$\text{F.G.Inventory Turnover Ratio} = \frac{\text{Cost of F.D. Sold}}{\text{Average F.D. Inventory.}}$$

Where,

$$\text{Average F.G. Inventory} = \frac{\text{Opening F.G.Inventory + Closing F.G. Inventory}}{2}$$

This ratio is presented in Table 4.47

TABLE - 4.47

FINISHED GOODS INVENTORY TURNOVER RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Cost of F.G. Sold	Average F.G. Inventory	
1	1981-82	1368.74	77.31	17.70
2	1982-83	1446.83	116.56	12.41
3	1983-84	1334.03	169.73	7.85
4	1984-85	1552.93	179.67	8.64
5	1985-86	1749.18	188.08	9.30
	TOTAL	7451.71	731.35	10.18
	AVERAGE	1490.34	146.27	10.18

Source - Company's Annual Reports.

CALCULATION OF AVERAGE FINISHED GOODS INVENTORY :

$$\text{Average F.G.Inventory} = \frac{\text{Opening F.G.Inventory + Closing F.G.Inventory}}{2}$$

$$1981\text{-}82 = \frac{63.24 + 91.39}{2} = 77.31$$

$$1982\text{-}83 = \frac{91.39 + 141.73}{2} = 116.56$$

$$1983\text{-}84 = \frac{141.73 + 197.74}{2} = 169.73$$

$$1984\text{-}85 = \frac{197.74 + 161.61}{2} = 179.67$$

$$1985\text{-}86 = \frac{161.61 + 214.56}{2} = 188.08$$

The Finished Goods Inventory Turnover Ratio as presented in the table 4.47 continously marked a fluctuating trend throughout the period of the study. The turnover of finished goods inventory varied between 7.85 times in 1983-84 and 17.70 times in 1981-82. It had a downward trend during the first three years of the study i.e., from 1981-82 to 1983-84. However, it had a upward trend during the last two years of the study. The finished goods inventory turnover ratio was 17.70 times in 1981-82, which constantly decreased upto 1983-84 and was 12.41 times and 7.85 times respectively. However, the turnover of finished goods inventory increased to 8.64 times in 1984-85 and further slightly to 9.30 times in 1985-86. The reason for the decrease in the turnover ratio during the first three years of the study was the significant increase in the level of average finished goods inventory without a corresponding increase in the cost of finished goods sold, while the reason for the increase in the turnover ratio during the last two years of the study was a substantial increase in the cost of finished gonds sdd without a corresponding increase in the level of average finished goods inventory of the company.

d. CONSUMABLE STORES INVENTORY TURNOVER RATIO :

This ratio has been calculated by the following formula.

$$\text{C.S.Inventory Turnover Ratio} = \frac{\text{Cost of C.S.Consumed}}{\text{Average Consumable Stores Inventory}}$$

Where,

$$\text{Average C.S.Inventory} = \frac{\text{Opening C.S.Inventory} + \text{Closing C.S.Inventory}}{2}$$

Table 4.48 shows the consumable stores inventory turnover ratio during the period from 1981-82 to 1985-86.

TABLE - 4.48

CONSUMABLE STORES INVENTORY TURNOVER RATIO

Sr. No.	Year	RUPEES IN LACS		Ratio in Times
		Cost of C.S. Consumed	Average C.S. Inventory.	
1	1981-82	162.84	47.08	3.45
2	1982-83	178.04	51.21	3.47
3	1983-84	134.42	53.23	2.52
4	1984-85	170.20	56.72	3.00
5	1985-86	235.14	56.47	4.16
	TOTAL	880.64	264.71	3.32
	AVERAGE	176.12	52.94	3.32

Source - Company's Annual Reports.

CALCULATION OF AVERAGE CONSUMABLE STORES INVENTORY :

Average Consumable Stores Inventory =

$$\frac{\text{Opening C.S.Inventory} + \text{Closing C.S.Inventory}}{2}$$

$$1981\text{-}82 = \frac{45.77 + 48.40}{2} = 47.08$$

$$1982\text{-}83 = \frac{48.40 + 54.03}{2} = 51.21$$

$$1983\text{-}84 = \frac{54.03 + 52.43}{2} = 53.23$$

$$1984\text{-}85 = \frac{52.43 + 61.02}{2} = 56.72$$

$$1985\text{-}86 = \frac{61.02 + 51.93}{2} = 56.47$$

The consumable stores inventory turnover ratio as shown in

Table 4.48 continuously marked a fluctuating trend throughout the period of the study. The turnover of consumable stores inventory w varied from 2.52 times in 1983-84 to 4.16 times in 1985-86, forming range of 1.64 times. The turnover ratio was 3.45 times in 1981-82, which increased slightly to 3.47 times in 1982-83. In 1983-84 there has been a significant decrease in the turnover ratio wi.e., 2.52 times, the lowest of the period of the study. During 1984-85 the turnover ratio improved slightly to 3.00 times and further significantly to 4.16 times in 1985-86, the highest of the period of the study. The reason of constant fluctuation in the consumable stores inventory turnover ratio was that the constant increase in the level of average consumable stores inventory in all the years except in 1985-86, while the cost of consumable stores consumed had constantly a variable trend during the overall period of the study.

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