

CHAPTER V

ENGINEERING AND ALLIED PRODUCTS

Engineering industry for the present study covers a sample of 5 sick units and another 5 healthy units. The basic features of financial statements are made and the ratios are analysed and compared. The cross section analysis and time series analysis is made for three consecutive years under study.

Financial Statements - An Analysis :**1. Assets : 1990 :**

Table 5.1 shows the composition of assets for each of the 5 sick and 5 healthy units for the year 1990. The average size of sick units is small with Rs.11.06 lakhs while the average size of healthy units is large with Rs.30.50 lakhs.

A comparison of sick and healthy units reveals some interesting features. Of the total assets current assets formed a very small portion in sick units with 15.8 per cent while the current assets in healthy units occupied a major portion of 86.5 per cent. Net fixed assets in sick units are higher with 17.3 per cent while they are lower in healthy units with 12.2 per cent. other assets formed a major portion of sick units with

TABLE 5.1

COMPOSITION OF ASSETS AND AVERAGE SIZE, 1990

(Rs. in '000s)

Sick Units					Healthy Units				
S.No.	Current Assets	Net Fixed Assets	Other Assets	Total Assets	S.No.	Current Assets	Net Fixed Assets	Other Assets	Total Assets
1.	175 (15.7)	191 (17.2)	740 (66.9)	1106 (100)	1.	2638 (86.4)	372 (12.1)	40 (1.3)	3050 (100)
2.	90 (10.4)	365 (29.3)	411 (39.4)	867 (100)	2.	272 (50.3)	408 (6.9)	2 (42.8)	682 (100)
3.	89 (31.3)	83 (29.3)	112 (39.4)	284 (100)	3.	164 (50.3)	22 (6.9)	139 (42.8)	325 (100)
4.	285 (99.3)	2 (0.7)	-- --	287 (100)	4.	634 (51.2)	603 (48.8)	-- (-)	1237 (100)
5.	234 (7.8)	315 (10.6)	2435 (81.6)	2984 (100)	5.	9484 (95.2)	456 (4.6)	18 (0.2)	9958 (100)
Total	873 (15.8)	956 (17.3)	3698 (66.9)	5527 (100)		13192 (86.5)	1861 (12.2)	199 (1.3)	15252 (100)
Ave.	175	191	740	1106		2638	372	40	3050

Industry Aggregate : 14065 2817 3897 20779
 (66.7) (13.6) (18.7) (100)

Average Size : 1406 282 390 2078

66.9 per cent while in healthy units it covers a meagre portion of 1.3 per cent which shows that the other assets in sick units in the Engineering industry have dominated the scene.

B. 1988 1989 and 1990 :

Table 5.2 and Table 5.3 indicates the composition of assets for each of the 5 sick and 5 healthy units for the years 1989 and 1988 respectively. The average of sick units have declined from Rs.14.06 lakhs in 1988 to Rs.10.64 lakhs in 1989 but increased to Rs.11.06 lakhs in 1990. Whereas in healthy units the average has increased continuously from Rs.21.42 lakhs in 1988 to Rs.24.63 lakhs in 1989 and further increased to Rs.30.50 lakhs in 1990.

It is observed from the tables that the current assets to total assets for sick units have increased continuously from 9.3 per cent in 1988 to 13.3 per cent in 1989 and to 15.8 per cent in 1990. In healthy units this has decreased from 82 per cent in 1988 to 81.7 per cent in 1989 but increased to 86.5 per cent in 1990. The proportion of net fixed assets to total assets in sick units have increased from 14.9 per cent to 19.5 per cent and declined to 17.3 per cent during 1988, 1989 and 1990. And in healthy units this has increased from 15.2

COMPOSITION OF ASSETS AND AVERAGE SIZE, 1989

(Rs. in '000s)

Sick Units					Healthy Units				
S.No.	Current Assets	Net Fixed Assets	Other Assets	Total Assets	S.No.	Current Assets	Net Fixed Assets	Other Assets	Total Assets
1.	141 (13.2)	208 (19.4)	715 (67.1)	1064 (100)	1.	2012 (81.6)	380 (15.3)	72 (2.9)	2464 (100)
2.	32 (4.4)	393 (53.3)	312 (42.3)	737 (100)	2.	79 (10.8)	508 (69.5)	144 (19.7)	731 (100)
3.	95 (30.7)	89 (28.7)	126 (40.6)	310 (100)	3.	197 (56.7)	28 (8.1)	122 (35.2)	347 (100)
4.	219 (99.0)	2 (1.0)	-- (-)	221 (100)	4.	359 (38.8)	565 (61.2)	-- (-)	924 (100)
5.	218 (7.3)	347 (11.6)	2423 (81.1)	2988 (100)	5.	7411 (94.4)	418 (5.3)	18 (0.3)	7847 (100)
Total	705 (13.3)	1039 (19.5)	3576 (67.2)	5320 (100)		10058 (81.7)	1899 (15.4)	356 (2.9)	12313 (100)
Ave.	141	208	715	1064		2012	380	71	2463
<u>Industry Aggregate</u> : 10763 2938 3932 17633									
					(61.0) (16.7) (22.3) (100)				
<u>Average Size</u> : 1076 294 393 1763									

TABLE 5.3

COMPOSITION OF ASSETS AND AVERAGE SIZE, 1988

(Rs. in '000s)

Sick Units					Healthy Units				
S.No.	Current Assets	Net Fixed Assets	Other Assets	Total Assets	S.No.	Current Assets	Net Fixed Assets	Other Assets	Total Assets
1.	131 (9.2)	210 (14.8)	1065 (75.8)	1406 (100)	1.	1757 (82.0)	326 (15.1)	59 (2.9)	2142 (100)
2.	21 (3.8)	359 (64.0)	181 (32.2)	561 (100)	2.	193 (33.6)	316 (54.9)	66 (11.5)	575 (100)
3.	48 (20.7)	97 (41.7)	87 (37.6)	233 (100)	3.	175 (53.4)	30 (9.2)	122 (37.4)	327 (100)
4.	192 (99.3)	-2 (0.7)	-- ---	194 (100)	4.	344 (37.9)	563 (62.1)	-- (-)	906 (100)
5.	261 (5.6)	382 (8.3)	3991 (86.1)	4634 (100)	5.	6315 (93.4)	397 (5.9)	48 (0.7)	6760 (100)
Total	653 (9.3)	1050 (14.9)	5324 (75.8)	7028 (100)		8784 (82.0)	1632 (15.2)	295 (2.8)	10710 (100)
Ave.	131	210	1065	1406		1757	326	59	2142
Industry Aggregate : 9437 2682 5619 17738									
(53.2) (15.1) (31.7) (100)									
Average Size : 944 268 562 1774									

per cent to 15.4 per cent and declined to 12.2 per cent during the same period. The proportion of other assets to total assets which is highest in sick units has continuously declining from 75.8 per cent to 67.2 per cent and to 66.9 per cent during 1988, 1989 and 1990. This proportion in healthy units has increased slightly from 2.8 per cent to 2.9 in 1989 but declined to 1.3 per cent in 1990.

2. Liabilities : 1990 :

Table 5.4 reveals the composition of liabilities for each of the 5 sick and healthy units for the year 1990. Of the total liabilities current liabilities formed 32 per cent in sick units and 75.3 per cent in healthy units. Long term liabilities formed 17.2 per cent in sick units and 11 per cent in healthy units. Net worth formed 50.8 per cent in sick units and only 13.7 per cent in healthy units.

1988, 1989 and 1990 :

It is observed from Tables 5.5 and 5.6 that the current liabilities to total liabilities in sick units have increased from 26.0 per cent to 32.8 per cent and declined to 32.0 per cent during 1988, 1989 and 1990. In healthy units this proportion of current liabilities to total liabilities have shown an increasing trend from

TABLE 5.4

COMPOSITION OF LIABILITIES AND AVERAGE SIZE, 1990

(Rs. in '000s)

Sick Units					Healthy Units				
S.No.	Current liabilities	long term liabilities	Net Worth	Total liabilities	S.No.	Current liabilities	long term liabilities	Net Worth	Total liabilities
1.	354 (32.0)	190 (17.1)	562 (50.7)	1106 (100)	1.	2295 (75.2)	335 (11.0)	420 (13.7)	3050 (100)
2.	293 (33.8)	314 (36.2)	260 (30.0)	867 (100)	2.	200 (29.4)	392 (57.6)	89 (13.0)	682 (100)
3.	187 (65.8)	83 (29.3)	14 (4.9)	284 (100)	3.	115 (35.3)	194 (59.6)	17 (5.1)	325 (100)
4.	270 (93.9)	-- --	17 (6.1)	287 (100)	4.	666 (53.9)	328 (26.5)	243 (19.6)	1237 (100)
5.	666 (22.3)	362 (12.2)	1995 (65.5)	2984 (100)	5.	8201 (82.4)	425 (4.2)	1332 (13.4)	9958 (100)
Total	1770 (32.0)	949 (17.2)	2808 (50.8)	5528 (100)		11477 (75.3)	1674 (11.0)	2101 (13.7)	15252 (100)
Ave.	354	190	561	1105		2295	335	420	3050
<u>Industry Aggregate</u> : 13247 2623 4909 20780									
<u>Average size</u> : 1325 262 491 2078									

TABLE 5.5

COMPOSITION OF LIABILITIES AND AVERAGE SIZE, 1989

(Rs. in '000s)

Sick Units					Healthy Units				
S.No.	Current liabilities	long term liabilities	Net Worth	Total liabilities	S.No.	Current liabilities	long term liabilities	Net Worth	Total liabilities
1.	349 (32.8)	153 (14.4)	561 (52.8)	1064 (100)	1.	1689 (68.5)	335 (3.5)	440 (17.8)	2464 (100)
2.	309 (42.0)	168 (22.8)	260 (35.2)	737 (100)	2.	105 (14.4)	415 (56.8)	210 (28.8)	731 (100)
3.	202 (65.2)	94 (30.3)	14 (4.5)	310 (100)	3.	146 (42.1)	178 (51.1)	24 (6.8)	347 (100)
4.	205 (92.7)	-- (-)	16 (7.3)	221 (100)	4.	396 (42.9)	325 (35.2)	203 (21.9)	924 (100)
5.	680 (22.8)	353 (11.8)	1995 (65.4)	2988 (100)	5.	6109 (77.8)	418 (5.3)	132 (16.90)	7847 (100)
Total	1745 (32.8)	768 (14.4)	2806 (52.8)	5320 (100)		8445 (68.6)	1671 (13.6)	2197 (17.8)	12313 (100)
Ave.	349	154	561	1064		1689	334	439	2462

Industry Aggregate : 10190 2439 5003 17633
 (57.8) (13.8) (28.4) (100)

Average Size : 1019 244 500 1763

TABLE 5.6

COMPOSITION OF LIABILITIES AND AVERAGE SIZE, 1988

(Rs. in '000s)

Sick Units					Healthy Units				
S.No.	Current liabilities	long term liabilities	Net Worth	Total liabilities	S.No.	Current liabilities	long term liabilities	Net Worth	Total liabilities
1.	365 (26.2)	469 (33.3)	571 (40.5)	1406 (100)	1.	1469 (68.4)	314 (14.8)	360 (16.8)	2142 (100)
2.	150 (26.8)	168 (29.9)	242 (43.3)	561 (100)	2.	128 (22.2)	368 (64.0)	79 (13.8)	575 (100)
3.	157 (67.6)	60 (26.4)	14 (6.0)	231 (100)	3.	145 (44.2)	157 (48.5)	24 (7.3)	327 (100)
4.	120 (62.1)	-- (-)	74 (37.9)	194 (100)	4.	393 (43.3)	318 (35.1)	196 (21.6)	906 (100)
5.	1033 (22.3)	1646 (35.5)	1955 (42.2)	4634 (100)	5.	5209 (77.1)	411 (6.1)	1140 (16.8)	6760 (100)
Total	1825 (26.0)	2343 (33.4)	2856 (40.6)	7026 (100)		7344 (8.5)	1568 (14.7)	1799 (16.8)	10708 (100)
Ave.	365	469	571	1405		1469	313	360	2142

Industry Aggregate:

9169 (51.7)	3911 (22.1)	4655 (26.2)	17734 (100)
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Average Size

917	391	465	1773
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68.5 per cent to 68.6 per cent and to 75.3 per cent. The proportion of long-term liabilities to total liabilities in sick units have declined from 33.4 per cent in 1988 to 14.4 per cent in 1989 but increased to 17.2 per cent. While in healthy units this proportion has decreased continuously over the period from 14.7 per cent to 13.6 per cent and to 11.0 per cent during the above period. The proportion of net worth to total liabilities has increased from 40.6 per cent to 52.8 per cent in 1989 but declined to 50.8 per cent in 1990. In case of healthy units this proportion has increased from 16.8 per cent in 1988 to 17.8 per cent in 1989 but declined to 13.7 per cent in 1990.

3. Output : 1990 :

Tables 5.7 and 5.8 exhibits the composition of output for each of the 5 sick and healthy units for the year 1990. The average size of sick units is very small with Rs.2.72 lakhs whereas the average size of healthy units is large with Rs.36.70 lakhs. Sick units in 1990 have showed a loss of -12.1 per cent while the healthy units have booked a profit of only 2 per cent.

Of the total output the proportion of raw materials is lower in sick units and higher in healthy units. This proportion is 43.1 in sick units but it is

TABLE 5.7
COMPOSITION OF OUTPUT, 1990

(Rs. in '000)

Sick Units

S.No.	Raw material	Administrative & selling expenses	Wages & salaries	Interest	Depreciation	Total expenditure	Net profit	Total output/ Net Sales & other income
1.	117 (43.1)	106 (39.1)	15 (5.5)	48 (17.8)	18 (6.6)	306 (112.1)	- 32 (-12.1)	271 (100)
2.	3 (5.2)	18 (33.8)	14 (26.0)	90 (166.2)	27 (50.6)	152 (281.8)	- 98 (-181.8)	54 (100)
3.	174 (58.5)	84 (28.8)	2 (0.5)	8 (2.8)	13 (4.2)	280 (94.8)	16 (5.2)	296 (100)
4.	287 (47.9)	299 (49.9)	33 (5.6)	17 (2.9)	-- (-)	637 (106.3)	- 37 (-6.3)	600 (100)
5.	7 (5.0)	23 (16.5)	11 (8.0)	78 (56.0)	31 (22.5)	151 (108.0)	- 11 (- 8.0)	140 (100)
	588 (43.1)	530 (39.2)	75 (5.5)	241 (17.8)	89 (6.6)	1523 (112.1)	- 162 (- 12.1)	1361 (100)
Ave.	117	106	15	48	18	304	- 32	272

Industry Aggregate :

15872 1401 452 1583 193 19504 210 19714

Average Size :

1587 140 45 158 19 1950 21 1971

TABLE 5.8
COMPOSITION OF OUTPUT, 1990

(Rs. in '000s)

Healthy Units

S.No.	Raw material	Administrative & selling expenses	Wages & salaries	Interest	Depreciation	Total expenditure	Net profit	Total output/ (Net Sales & other income)
1.	3057 (83.2)	174 (4.6)	73 (2.1)	268 (7.3)	21 (0.6)	3593 (98.0)	75 (2.0)	3668 (100)
2.	547 (67.3)	79 (9.7)	67 (8.3)	56 (6.9)	34 (4.2)	784 (96.4)	29 (3.6)	813 (100)
3.	88 (37.6)	68 (29.2)	23 (9.9)	35 (14.9)	2 (0.6)	216 (92.2)	18 (7.8)	234 (100)
4.	430 (68.2)	15 (2.5)	35 (5.5)	39 (6.2)	13 (2.1)	533 (84.5)	98 (15.5)	631 (100)
5.	11162 (85.8)	535 (4.1)	179 (1.3)	945 (7.3)	34 (0.3)	12855 (98.8)	1521 (1.2)	13008 (100)
	15284 (83.3)	871 (4.7)	377 (2.1)	1343 (7.3)	104 (0.6)	17981 (98.0)	372 (2.0)	18353 (100)
Ave.	3057	174	75	268	21	3596	74	3670

as high as 83.3 per cent in healthy units. Administrative and other expenses have formed as high as 39.2 per cent in sick units but they are only 4.7 per cent in healthy units. The proportion of wages and salaries also is high with 5.5 per cent in sick units while it is only 2.1 per cent in healthy units. Interest charges and depreciation are also high with 17.8 per cent and 6 per cent in sick units and they are only 7.3 per cent and 0.6 per cent in healthy units.

B. 1988, 1989 and 1990 :

Tables 5.9, 5.10, 5.11 and 5.12 shows the composition of output for each of the 5 units of two categories sick and healthy for the years 1989 and 1988. The average size of both sick and healthy units has increased in 1989 but declined in 1990. The average size in sick units has increased from Rs.2.39 lakhs in 1988 to Rs.3.15 lakhs in 1989 out declined to Rs.2.72 lakhs in 1990. In healthy units also this average size has increased from Rs.29.96 lakhs in 1988 to Rs.40.33 lakhs in 1989 but declined to Rs.36.70 lakhs in 1990.

The analysis of net profit, interest and depreciation to total output has been made for the years 1988, 1989 and 1990. It is observed from the tables that the proportion of losses have continuously been decreasing over the period from -24.5 per cent to -17.8 per cent

TABLE 5.9
COMPOSITION OF OUTPUT, 1989

(Rs. in '000s)

Sick Units								
S.No.	Raw material	Administrative & selling expenses	Wages & salaries	Interest	Depreciation	Total expenditure	Net profit	Total output/ (Net Sales & other income)
1.	176 (55.8)	120 (38.0)	9 (3.0)	46 (14.7)	20 (6.3)	371 (117.8)	-56 (-17.8)	315 (100)
2.	81 (81.5)	28 (28.4)	20 (19.8)	73 (74.5)	29 (29.8)	231 (234.0)	-132 (-134)	99 (100)
3.	199 (68.6)	72 (24.9)	1 (0.5)	31 (10.9)	14 (4.8)	318 (109.7)	-28 (-9.7)	290 (100)
4.	417 (56.3)	373 (50.3)	6 (0.8)	1 (0.1)	1 (0.1)	797 (107.6)	-56 (-7.6)	741 (100)
5.	6 (4.9)	7 (5.4)	10 (8.7)	78 (60.5)	35 (27.0)	138 (106.5)	-8 (-6.5)	130 (100)
	879 (55.8)	600 (38.1)	46 (3.0)	229 (14.6)	99 (6.3)	1855 (117.8)	-2802 (-17.8)	1575 (100)
Ave.	176	120	9	46	20	371	-56	315

Industrial aggregate :

18288	1408	385	1257	198	21539	201	21740
(84.1)	(6.5)	(1.8)	(5.8)	(0.5)	(99.1)	(0.9)	(100)

Average size :

1829	141	38	126	20	2154	20	2174
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TABLE 5.10
COMPOSITION OF OUTPUT, 1989

(Rs. in '000)

Healthy units								
S.No.	Raw material	Administrative & selling expenses	Wages & salaries	Interest	Depreciation	Total expenditure	Net profit	Total output/ (Net Sales & other income)
1.	3482 (86.2)	162 (4.0)	68 (1.8)	206 (5.1)	20 (0.5)	3937 (97.6)	96 (2.4)	4033 (100)
2.	449 (77.5)	66 (11.4)	58 (10.0)	27 (4.6)	39 (6.8)	639 (110.3)	-60 (-10.3)	580 (100)
3.	101 (50.0)	36 (18.1)	36 (18.0)	25 (12.5)	1 (0.7)	200 (99.3)	2 (0.7)	202 (100)
4.	255 (64.9)	11 (2.9)	33 (8.4)	27 (6.9)	12 (3.0)	339 (86.1)	55 (13.9)	393 (100)
5.	13122 (87.7)	533 (3.6)	144 (1.0)	743 (4.9)	27 (0.2)	14569 (197.4)	388 (2.6)	14957 (100)
	17409 (86.3)	808 (4.0)	339 (1.7)	1028 (5.1)	99 (0.5)	19684 (97.6)	481 (2.4)	20165 (100)
Ave.	3482	162	68	206	20	3937	96	4033

TABLE 5.11
COMPOSITION OF OUTPUT 1988

(Rs. in '000)

Sick Units								
S.No.	Raw material	Administrative & selling expenses	Wages & salaries	Interest	Depreciation	Total expenditure	Net profit	Total output/ (Net Sales & other income)
1.	133 (55.5)	85 (35.5)	24 (10.0)	40 (16.6)	16 (6.8)	297 (124.5)	-59 (-24.5)	239 (100)
2.	87 (82.1)	39 (37.1)	19 (17.9)	63 (59.6)	24 (23.2)	232 (219.9)	-57 (-119.9)	176 (100)
3.	167 (88.5)	13 (7.0)	20 (10.4)	15 (8.2)	--	215 (114.1)	-27 (-14.1)	188 (100)
4.	269 (56.3)	211 (44.3)	4 (0.9)	--	--	484 101.5	-7 (-1.5)	477 (100)
5.	8 (4.5)	76 (41.1)	53 (28.9)	81 (44.1)	39 (21.3)	258 (139.9)	-73 (-39.9)	184 (100)
	664 (55.6)	424 (35.5)	120 (10.0)	199 (16.7)	79 (6.7)	1486 (124.5)	-223 (-24.5)	1264 (100)
Ave.	133	85	24	40	16	297	-45	239

Industry aggregate :

13522 1093 372 1169 174 16327 -94 16234

Average size :

1352 109 37 117 17 1633 -9 1623

TABLE 5.12
COMPOSITION OF OUTPUT, 1988

(Rs. in '000)

Healthy units								
S.No.	Raw material	Administrative & selling expenses	Wages & salaries	Interest	Depreciation	Total expenditure	Net profit	Total output/ (Net Sales & other income)
1.	2572 (85.8)	133 (4.5)	50 (1.8)	194 (6.4)	19 (0.6)	2968 (99.1)	26 (0.9)	2994 (100)
2.	328 (60.4)	85 (15.7)	41 (7.6)	38 (7.0)	41 (7.6)	534 (98.3)	9 (1.7)	543 (100)
3.	98 (55.8)	19 (9.5)	33 (18.7)	24 (13.6)	2 (0.8)	173 (98.4)	3 (1.6)	176 (100)
4.	280 (76.2)	9 (2.5)	31 (8.4)	27 (7.4)	12 (3.2)	359 (97.7)	8 (2.3)	367 (100)
5.	9580 (88.0)	423 (3.9)	97 (0.9)	687 (6.3)	21 (0.1)	10807 (99.2)	83 (0.9)	10890 (100)
	12858 (85.9)	669 (4.4)	252 (1.7)	970 (6.5)	95 (0.6)	14841 (99.1)	129 (0.9)	14970 (100)
Ave.	2572	134	50	194	19	2968	26	2996

and to -12.1 per cent in sick units. The proportion of profit to total output has increased from 0.9 per cent in 1988 to 2.4 per cent in 1989 but declined to 2.0 per cent in 1990. The proportion of interest to total output in sick units has decreased from 16.7 per cent in 1988 to 14.6 per cent in 1989 but increased to 17.8 per cent in 1990. In healthy units this proportion has decreased from 6.5 per cent in 1988 to 5.1 per cent in 1989 but increased to 7.3 per cent in 1990.

The proportion of depreciation to total output in sick units has decreased from 6.7 per cent to 6.3 per cent and increased to 6.6 per cent, where this proportion in healthy units is decreased from 0.6 to 0.5 and increased to 0.6 for the above period.

II. RATIO ANALYSIS :

1. Short-term Solvency Ratios :

A. 1990 :

Table 5.13 gives the short-term solvency ratio for the year 1990 for each of the 5 sick and healthy units.

i) Current Assets to Current Liabilities :

The average ratio of sick units is lower with 0.49 per cent while the average ratio of healthy units is higher with 1.15 per cent. The industry average is 1.06.

TABLE 5.13
SHORT TERM SOLVENCY RATIOS, 1990

Sick Units					Healthy Units						
Sl. No.	Current Assets/Current Liabilities	Current Liabilities/Total Assets	Current Assets/Total Assets	Working Capital/Total Assets	Working Capital/bank credit	Sl. No.	Current Assets/Current Liabilities	Current Liabilities/Total Assets	Current Assets/Total Assets	Working Capital/Total Assets	Working Capital/bank credit
1.	0.49	0.32	0.15	-0.16	-1.31	1.	1.14	0.75	0.86	0.11	0.24
2.	0.31	0.34	0.10	-0.23	-0.78	2.	1.36	0.29	0.50	0.10	0.59
3.	0.48	0.66	0.31	-0.34	-1.37	3.	1.43	0.35	0.50	0.15	4.67
4.	1.06	0.94	0.99	0.05	0.25	4.	0.95	0.54	0.51	-0.02	-0.08
5.	0.33	0.22	0.08	-0.14	-2.85	5.	1.16	0.82	0.95	0.13	0.26
Ave.	0.49	0.32	0.16	-0.16	-1.32	1.15	0.75	0.87	0.11	0.25	

Industry average:

1.06 0.64 0.67 0.039 0.11

ii) Current Liabilities to Total Assets :

The average ratio of sick units is 0.32 while the average ratio of healthy units is 0.75 per cent. The industry average is 0.64 per cent.

iii) Current Assets to Total Assets :

The proportion of current assets to total assets in sick units is only 0.16 per cent while this proportion in healthy units is as high as 0.87 per cent.

iv) Working Capital to Total Assets :

The proportion of working capital to total assets in sick units shows a negative ratio with -0.16 while it shows a positive ratio of 0.11 per cent in healthy units.

v) Working Capital to Bank Credit :

The average ratio of the sick units is lower with -1.32 while it is higher with 0.25 per cent in healthy units.

B. 1988, 1989 and 1990 :

Tables 5.14 and 5.15 shows the short-term solvency ratios for each of the 5 sick and healthy units for 1989 and 1988.

i) Current Assets/Current Liabilities :

The average ratio of sick units increased continuously from 0.36 to 0.40 and to 0.49 per cent whereas the average ratio of healthy units has declined continuously from 1.20 per cent to 1.19 per cent and to 1.15 per cent continuously over the period.

ii) Current Liabilities/Total Assets :

The average ratio of sick units has increased from 0.26 per cent to 0.33 per cent but declined to 0.32 per cent during 1988, 1989 and 1990. In case of health units this percentage has increased continuously from 0.68 to 0.69 and to 0.75 per cent for the same period.

iii) Current assets/total assets :

The average ratio of current assets to total assets in sick units has increased from 0.093 per cent in 1988 to 0.13 per cent in 1989 and further increased to 0.16 per cent in 1990. In the healthy units this ratio shows no change during 1988 and 1989 with 0.8 per cent but it has increased to 0.87 per cent in 1990.

iv) Working Capital/Total Assets :

The average ratio of sick units has decreased from -0.17 per cent in 1988 to -0.20 per cent in 1989 and increased to -0.16 per cent in 1990. Healthy units show

TABLE 5.14
SHORT TERM SOLVENCY RATIOS, 1989

Sick Units					Healthy Units						
Sl. No.	Current Assets/Current Liabilities	Current Liabilities/Total Assets	Current Assets/Total Assets	Working Capital/Total Assets	Working Capital/bank credit	Sl. No.	Current Assets/Current Liabilities	Current Liabilities/Total Assets	Current Assets/Total Assets	Working Capital/Total Assets	Working Capital/bank credit
1.	0.40	0.33	0.13	-0.19	-1.85	1.	1.19	0.68	0.81	0.31	0.34
2.	0.10	0.42	0.04	-0.37	-1.32	2.	0.75	0.22	0.11	-0.04	-0.37
3.	0.47	0.65	0.31	-0.34	-1.13	3.	1.35	0.44	0.57	0.15	1.92
4.	1.07	0.93	0.99	0.06	1.00	4.	0.91	0.43	0.39	-0.04	-0.16
5.	0.32	0.23	0.07	-0.15	-3.53	5.	1.21	0.77	0.94	0.17	0.36
Ave.	0.40	0.33	0.13	-0.20	1.85	Ave.	1.19	0.69	0.82	0.13	0.33
<u>Industry average:</u>											
	1.06	0.58	0.61	0.03	0.11						

TABLE 5.15
SHORT TERM SOLVENCY RATIOS, 1988

Sick Units					Healthy Units						
Sl. No.	Current Assets/Current Liabilities	Current Liabilities/Total Assets	Current Assets/Total Assets	Working Capital/Total Assets	Working Capital/bank credit	Sl. No.	Current Assets/Current Liabilities	Current Liabilities/Total Assets	Current Assets/Total Assets	Working Capital/Total Assets	Working Capital/bank credit
1.	0.35	0.26	0.09	-0.16	-2.91	1.	1.20	0.68	0.82	0.13	0.35
2.	0.14	0.27	0.04	-0.23	-1.11	2.	1.51	0.22	0.34	0.11	0.93
3.	0.31	0.68	0.21	-0.47	-1.42	3.	1.21	0.44	0.53	0.09	1.19
4.	1.60	0.62	0.99	0.37	5.15	4.	0.88	0.43	0.38	-0.05	-0.27
5.	0.25	0.22	0.06	-0.17	-6.81	5.	1.21	0.77	0.93	0.16	0.38
Ave.	0.36	0.26	0.093	-0.17	-2.92		1.20	0.68	0.82	0.134	0.35

Industry average:

1.03 0.52 0.53 0.015 0.06

a continuous declining trend from 0.134 per cent to 0.13 per cent and to 0.1 per cent during 1988, 1989 and 1990.

v) Working Capital/Bank Credit :

The average ratio of sick units increased continuously from -2.92 to -1.85 to -1.32 whereas the average ratio of healthy units declined from 0.35 to 0.33 and to 0.25 per cent during 1988, 1989 and 1990.

Activity Ratios :

A. 1990 :

Table 5.16 shows the activity ratios for the sick and healthy units for the year 1990.

i) Net working Capital/Net Sales :

The average net working capital to net sales ratio is lower in sick units with -67 per cent while this ratio is higher in healthy units with 6 per cent.

ii) Stock/Net Sales :

The average ratio in sick units is lower with 27 per cent while it is higher in healthy units with 37 per cent.

TABLE 5.16
ACTIVITY RATIOS, 1990

Sick Units				Healthy Units					
Sl. No.	Net Working Capital/ Net Sales	Stock/ Net Sales	Net Sales/ Total Assets	Sundry Debtors/ Average daily Sales	Sl. No.	Net Working Capital/ Net Sales	Stock/ Net Sales	Net Sales/ Total Assets	Sundry Debtors/ Average daily Sales
1.	- 67	27	24	131	1.	9	37	119	121
2.	-376	131	6	104	2.	9	7	119	78
3.	.33	1	104	103	3.	33	1	45	382
4.	3	25	209	81	4.	- 5	85	51	17
5.	343	53	4	448	5.	10	37	130	126
Ave	- 67	27	24	131	Ave.	9	37	119	121

Industry Aggregate:

4 37 94 122

iii) Net Sales/Total Assets :

The average ratio in sick units is lower with 24 per cent while it is higher with 119 per cent in healthy units.

iv) Sundry Debtors/Average Daily Sales :

The average collection period for sick units is 131 whereas it is 121 for healthy units.

B. 1988, 1989 and 1990 :

Tables 5.17 and 5.18 shows the activity ratios of both sick and healthy units for the years 1989 and 1988.

i) Net Working Capital/Net Sales :

This ratio of sick units has increased from -99 per cent in 1988 to -66 per cent in 1989 but increased to -67 per cent in 1990. In case of healthy units this ratio has decreased from 10 per cent to 8 per cent but increased to 9 per cent during the same period.

ii) Stock/Net Sales :

The average ratio of sick units has declined from 32 per cent to 21 per cent but increased to 27 per cent during 1988, 1989 and 1990, while the average ratio in healthy units has declined from 33 per cent to 26 per

cent but increased to 37 per cent during 1988, 1989 and 1990.

iii) Net Sales/Total Assets :

This ratio on average has increased from 16 per cent to 30 per cent and decreased to 24 per cent in sick units while it has increased from 135 per cent to 164 per cent but declined to 119 per cent during the same period in healthy units.

iv) Sundry Debtors/Average Sales :

The average collection period of the sick units has increased continuously from 69 days to 71 days and further increased to 131 days while the average period in healthy units shows a decrease from 92 days to 79 days during 1988 to 1989 but increased to 121 days in 1990.

C. PROFITABILITY RATIOS :

A. 1990 :

i) Net Profit/Total Assets :

The average ratio of sick units is lower with -3 per cent while the average ratio of healthy units is higher with 2 per cent.

TABLE 5.17
ACTIVITY RATIOS, 1989

Sick Units				Healthy Units					
Sl. No.	Net Working Capital/ Net Sales	Stock/ Net Sales	Net Sales/ Total Assets	Sundry Debtors/ Average daily Sales	Sl. No.	Net Working Capital/ Net Sales	Stock/ Net Sales	Net Sales/ Total Assets	Sundry Debtors/ Average daily Sales
1.	- 66	21	30	71	1.	8	26	164	79
2.	-281	9	13	65	2.	- 4	9	79	11
3.	- 37	9	93	74	3.	26	7	56	324
4.	2	13	335	44	4.	- 9	77	43	28
5.	-367	107	4	223	5.	9	26	191	80
Ave.-	66	21	30	71	Ave.	8	26	164	79

Industry Aggregate:

3 26 123 79

TABLE 5.18
ACTIVITY RATIOS, 1988

Sick Units				Healthy Units					
Sl. No.	Net Working Capital/ Net Sales	Stock/ Net Sales	Net Sales/ Total Assets	Sundry Debtors/ Average daily Sales	Sl. No.	Net Working Capital/ Net Sales	Stock/ Net Sales	Net Sales/ Total Assets	Sundry Debtors/ Average daily Sales
1.	- 99	32	16	69	1.	10	33	135	92
2.	-123	9	19	19	2.	12	21	94	43
3.	- 58	8	81	53	3.	17	12	54	308
4.	15	18	246	65	4.	-13	70	40	40
5.	-448	112	4	129	5.	11	33	155	93
Ave.-	99	32	16	69	Ave.	10	33	135	92

Industry Aggregate:

2 33 88 91

TABLE 5.19
PROFITABILITY RATIOS, 1990

In Percentages

Sick Units		Healthy Units			
S.No.	Net Profit/ Total Assets	Net Profit/ Net worth	S.No.	Net Profit/ Total Assets	Net Profit/ Net worth
1.	- 3	- 6	1.	2	18
2.	- 11	- 38	2.	4	33
3.	5	110	3.	6	108
4.	- 13	-216	4.	8	40
5.	- 1	- 1	5.	2	11
Ave.	- 3	- 6	Ave.	2	18

Industry Average:

1 4

ii) Net Profit/Net Worth :

The average ratio of sick units is lower with -6 per cent while the average ratio of healthy units is higher with 18 per cent.

B. 1988, 1989 and 1990 ;

Tables 5.20 and 5.21 shows the profitability ratios for the years 1989 and 1988 of both sick and healthy units.

i) Net Profit/Total Assets :

The average ratio of sick units has declined from -4 per cent in 1988 to -5 per cent in 1989 but increased to -3 per cent in 1990; whereas the average ratio of healthy units has increased from 1 per cent in 1988 to 4 per cent in 1989 and declined to 2 per cent in 1990.

ii) Net Profit/Net Worth :

The average ratio of sick units has increased (negative) continuously from -10.4 per cent to -10 per cent and to -6 per cent over the period 1988, 1989 and 1990. In the category of healthy units this average ratio has increased from 7 per cent in 1988 to 22 per cent in 1989 but declined to 18 per cent in 1990.

TABLE 5.20
 PROFITABILITY RATIOS, 1989

(In Percentages)

Sick Units			Healthy Units		
S.No.	Net Profit/ Total Assets	Net Profit/ Net worth	S.No.	Net Profit/ Total Assets	Net Profit/ Net worth
1.	- 5	- 10	1.	4	22
2.	- 18	- 51	2.	- 8	- 28
3.	9	-200	3.	1	6
4.	- 25	-348	4.	6	27
5.	- 1	- 1	5.	5	29
Ave.	- 5	- 10	Ave.	4	22

Industry Average:

1

4

TABLE 5.21
 PROFITABILITY RATIOS, 1988

(In Percentages)

Sick Units			Healthy Units		
S.No.	Net Profit/ Total Assets	Net Profit/ Net worth	S.No.	Net Profit/ Total Assets	Net Profit/ Net worth
1.	- 4	- 10.4	1.	1	7
2.	- 23	- 53	2.	2	12
3.	- 11	-190	3.	1	12
4.	- 4	- 10	4.	1	4
5.	- 2	- 4	5.	1	7
Ave.	- 4	- 10.4	Ave.	1	7

Industry Average:

- 0.9 - 4

FINANCIAL STABILITY RATIOS :**A. 1990 :**

Table 5.22 shows the financial stability ratios for both sick and healthy units for the year 1990.

i) Net Worth/Debt ;

The average ratio of sick units is higher with 1.03 per cent while it is lower with only 0.16 per cent in healthy units.

ii) Net Worth/Bank Credit :

The average ratio of sick units is higher with 4.14 per cent while it is 0.31 per cent in healthy units.

iii) Net Worth/Net Sales :

The average ratio of sick units is higher with 2.09 and the average ratio of healthy units is 0.12 per cent.

iv) Net Worth/Total Assets :

The average ratio of sick units is 0.51 while the average ratio of healthy units is 0.14 per cent.

TABLE 5.22
FINANCIAL STABILITY RATIOS, 1990

Sick Units				Healthy Units					
Sl. No.	Net worth/ Debt	Net worth/ Bank credit	Net worth/ Net Sales	Net worth/ Total assets	Sl. No.	Net worth/ Debt	Net worth/ Bank credit	Net worth/ Net Sales	Net worth/ Total assets
1.	1.02	4.13	2.08	0.50	1.	0.15	0.30	0.12	0.14
2.	0.43	1.00	4.82	0.30	2.	0.15	0.73	0.11	0.13
3.	0.05	0.20	0.05	0.05	3.	0.05	1.60	0.11	0.05
4.	0.06	0.29	0.03	0.06	4.	0.24	0.60	0.38	0.20
5.	1.90	12.87	15.52	0.66	5.	0.15	0.27	0.10	0.13
Ave.	1.03	4.14	2.09	0.51		0.16	0.31	0.12	0.14

Industry Aggregate:

0.31 0.65 0.25 0.24

B. 1988, 1989 and 1990 :

Tables 5.23 and 5.24 provide the financial stability ratios for the years 1989 and 1988.

i) Net Worth/Debt :

The average ratio of sick units has increased from 0.68 per cent to 1.12 per cent and declined to 1.03 per cent, whereas in healthy units this ratio has increased from 0.20 per cent to 0.22 per cent and declined to 0.16 per cent during 1988, 1989 and 1990 respectively.

ii) Net Worth/Bank Credit :

The average ratio of net worth to bank credit in sick units has decreased continuously from 7.11 per cent in 1988 to 4.99 per cent in 1989 and further declined to 4.14 per cent in 1990. Whereas this ratio in healthy units has increased from 0.44 per cent to 0.45 per cent but declined to 0.31 per cent during the same period.

iii) Net Worth/Net Sales :

The average ratio in sick units has decreased from 2.42 per cent in 1988 to 1.79 per cent in 1989 and increased to 2.09 per cent in 1990. Whereas in case of healthy units this ratio has decreased from 0.12 to 0.11 but increased to 0.12 during the above period.

TABLE 5.23

FINANCIAL STABILITY RATIOS, 1989

Sick Units				Healthy Units					
Sl. No.	Net worth/ Debt	Net worth/ Bank credit	Net worth/ Net Sales	Net worth/ Total assets	Sl. No.	Net worth/ Debt	Net worth/ Bank credit	Net worth/ Net Sales	Net worth/ Total assets
1.	1.11	4.98	1.78	0.52	1.	0.21	0.44	0.11	0.17
2.	0.54	1.24	2.63	0.35	2.	0.41	3.01	0.36	0.07
3.	0.05	0.15	0.05	0.05	3.	0.07	0.89	0.12	0.07
4.	0.08	1.15	0.02	0.07	4.	0.28	0.85	0.52	0.22
5.	1.89	14.94	15.52	0.65	5.	0.20	0.37	0.09	0.17
Ave.	1.12	4.99	1.79	0.53	Ave.	0.22	0.45	0.11	0.18

Industry Aggregate:

0.40 0.91 0.23 0.28

TABLE 5.24

FINANCIAL STABILITY RATIOS, 1988

Sick Units				Healthy Units					
Sl. No.	Net worth/ Debt	Net worth/ Bank credit	Net worth/ Net Sales	Net worth/ Total assets	Sl. No.	Net worth/ Debt	Net worth/ Bank credit	Net worth/ Net Sales	Net worth/ Total assets
1.	0.67	7.10	2.41	0.40	1.	0.19	0.43	0.12	0.16
2.	0.76	2.07	2.29	0.43	2.	0.16	1.33	0.77	0.16
3.	0.06	0.18	0.07	0.06	3.	0.08	0.94	0.14	0.07
4.	0.61	5.25	0.15	0.38	4.	0.28	1.10	0.54	0.22
5.	0.73	17.24	11.34	0.42	5.	0.20	0.38	0.11	0.17
Ave.	0.68	7.11	2.42	0.41	Ave.	0.20	0.44	0.12	0.17

Industry Aggregate:

0.36 1.04 0.30 0.26

iv) Net Worth/Net Sales :

The average ratio of sick units has increased from 0.41 per cent in 1988 to 0.53 per cent in 1989 and declined to 0.51 per cent in 1990. In healthy units this ratio occupies 0.17, 0.18 and 0.14 per cent respectively for the above period.

Main Conclusions :

- a) The average size of sick units measured in terms of total assets is lower than that of the healthy units with Rs.11.06 lakhs and Rs.30.50 lakhs respectively.
- b) The proportion of current assets to total assets is small with 15.8 per cent in 1990 than that of healthy units with 86.5 per cent.
- c) The average size of the healthy units measured in terms of total assets at the aggregate level has increased continuously. The proportion of current assets to total assets in sick units at the aggregate level has also increased continuously.
- d) The proportion of current liabilities is smaller in sick units than in healthy units with 32 per cent and 75.3 per cent respectively for the year 1990.

- e) The proportion of current liabilities to total liabilities increased and the proportion of long-term liabilities to total liabilities declined continuously both in sick and healthy units.
- f) The proportion of net loss to total output in sick units at the aggregate level declined continuously.
- g) The average ratio of current assets to current liabilities and net working capital to bank credit has increased continuously in sick units whereas this proportion in healthy units has declined continuously.
- h) The average collection period of sick units has increased continuously over the period.
- i) The average ratio of net profit to net worth in sick units has declined continuously.
- j) The average ratio of net worth to bank credit in sick units has declined continuously.