

CHAPTER – II

DIAGNOSTIC STUDY AND PROFIT CURVES

ECONOMIC RELATIONSHIP :

Materials management is especially important to manufacturing companies because of its direct relation to their economic success. Each business has a limited amount of capital to invest in plant, equipment, inventories, accounts receivable, and other assets. It is the job of management to employ capital so as to yield the greatest possible profit for the owners. There are two basic ways of doing this :

1. By maximizing the margin of profit on each unit of product that is produced with the capital.
2. By maximizing the number of units of product produced with a given amount of capital.

Successful materials management contributes to both of these objectives. It maximizes profit margins when it reduces the cost of purchased material, and it permits greater output with a fixed amount of capital by efficient scheduling and inventory management.

H Greater working Capital Efficiency: Every business management tries to increase the return earned on its stockholders' investment.

Successful materials management can do much to improve the efficiency with which capital is used. Taking 1989 figures BEML has about 36 percent of its assets invested in inventories and only 22 percent in net property, plant, and equipment. Inventories are first most important assets in the company, and their control is one of the most vital phases of materials management.

Normally, in an average company the revenue earned is spent in the following areas (Exhibit 2.1).

- | | |
|---|----------|
| 1. To Suppliers | - 50.00% |
| 2. To Employees | - 28.75% |
| 3. To Taxes | - 9.75% |
| 4. For Wear and Tear or Obsolescence of plants & equipment. | - 3.75% |
| 5. To Shareholders | - 5.25% |
| 6. For use in the Business to provide facilities for working capital. | - 2.50% |

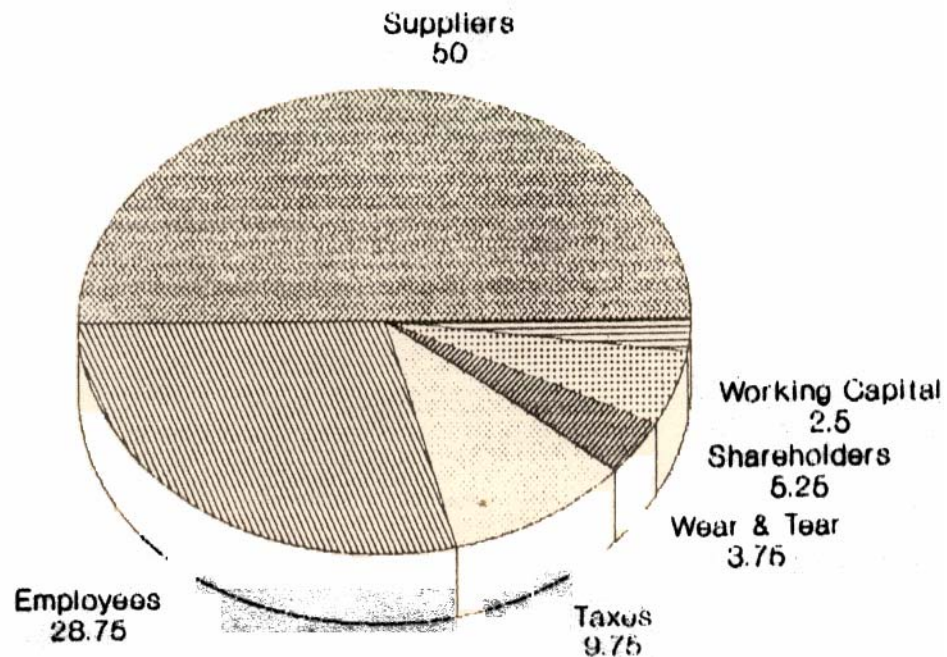


EXHIBIT 2.1 INVENTORY OF ASSETS

If a materials manager can reduce inventories without impairing operating efficiency, he frees working capital that can be employed profitably elsewhere. Good inventory management also boosts profits (or reduces losses in other ways).

FINANCIAL STATISTICS :

Following data are presented from the 25th Annual Report of BEML:

(Rs. lakhs)

	1984-85	1985-86	1986-87	1987-88	1988-89
CAPITAL					
Inventories	17659	20357	20930	25725	28545
Working Capital	29959	31510	33804	42016	42515
Capital Employed	36376	39016	45379	54945	57698
REVENUE					
Sales	42639*	48299*	50615*	51028*	62168*
Value of Production	42927	49317	51487	51183	80034
Surplus before Depreciation & Interest	18024	19574	22636	23496	27489
RATIOS					
Turnover to Capital Employed	117.22	123.79	111.54	92.87	107.75

*Includes Excise Duty.

Production Performance

The value of production during the last three years is worked out below:

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	1986-87	1987-88	1988-89
a. Sales (excluding export Incentives.	50,118.45	48,940.33	51,846.31
b. Closing Stock of finished goods and work-in-progress.	10,098.18	14,342.61	14,323.63
c. Opening Stock finished goods and work-in-progress.	9,226.27	10,098.18	14,342.61
Value of Production (a+b+c)	50,990.36	53,184.76	59,827.33

The percentage of value of production to net worth decreased from 269.78 in 1986-87 to 238.16 in 1987-88 and to 226.96 in 1988-89. The percentage of value of production to total net assets of the Company varied from 82.42 in 1986-87 to 73.35 in 1987-88 and 75.42 in 1988-89.

INVENTORY AND PRODUCTION :

(Rs. lakhs)

	1986-87	1987-88	1988-89
Raw Materials & Components	6,118.22	8,231.20	9,673.10
Stores & Spare Parts	782.36	783.01	728.94
Scrap	-	-	33.70
Work-in-Progress	3,567.49	3,734.44	5,663.25
Finished Goods	6,530.68	10,608.17	8,660.38
Material-in-Transit	3,638.57	2,103.01	3,526.58
Tools	292.55	265.28	259.49
	20,929.87	25,725.11	28,545.44

The stock of raw materials, stores and spares was equivalent to about 5.2 months' consumption for production requirements in 1988-89 as compared to 4 months' in 1987-88 and 3.2 months' in 1986-87.

The work-in-progress at the end of 1988-89 represented about 1.3 months' value of production at cost (including depreciation) as against 0.9 months at the end of 1987-88 and 1986-87 respectively.

Finished goods represented about 1.7 months' sales in 1988-89 as compared to 2.6 months' in 1987-88 and 1.6 months' in 1986-87.