

CHAPTER - 3

PROFIT

MARGIN AND

ASSETS

TURNOVER

A). PROFIT MARGIN

Profit margin is the margin of profit on sales. It is the per cent of profit which is left out after deducting all the expenses and provisions from sales. Profit margin depends upon the operating expenses of the company. However, an increase in the sales volume is favourable, but not always, to profit margin. If an increase in the sales volume is accompanied by a substantial rise in the operating expenses, a lower profit margin may have to be generated. The main factors affecting the size of profit margin of the company are as follows :

- 1) The ability of the management to control and curb the operating expenses and
- 2) The ability of the management to implement suitable pricing policy.

Each of the above factors must be kept in harmony with each other. If the operating expenses ratio of the company is 100 per cent, the profit margin will be zero. On the other hand, if the operating expenses ratio is low, it leaves a high percentage of profit margin. The management of the company should try to curb and control the operating expenses with suitable selling price policy with the present competitive market.

The management of the company should always try to maximise the profitability to survive and to grow over a period of time. The shareholders, investors, creditors are interested to know the operating efficiency of the firm and its ability to ensure

adequate return. The return on investment is considered to be an important and basic measure of testing the profitability of the company. Return on investment consists of two essential parts i.e. profit margin and assets turnover. In fact, the study of profit margin and assets turnover are equally important as a return on investment. An analysis of profitability of selected eight industrial companies in Jordan, using the profit margin and assets turnover, would reflect the performance and efficiency of these companies over eleven years. Profit Margin is used for testing the management's ability and efficiency in operating the company successfully to recover all the payout of the company and also to leave reasonable margin of profit which are to be distributed equally among the shareholders according to their shares.

Profit margin results from business operations and is represented by deducting total expenditure from total revenue. A high profit margin indicates suitable return on shareholder's shares and are reflects the efficiency and the success of the management. As Khan and Jain write " a firm with a low profit margin can earn a high rate of return on investment if it has a higher inventory turnover. The profit margin should, therefore, be evaluated in relation to the turnover ratio. In other words, the overall rate of return is the product of the net profit margin and the turnover ratio"¹.

1. Khan M.Y., Jain P.K., Financial Management, Tata Mc Graw Hill Publishing Company Limited, New Delhi, 1984, P.139.

Gross Profit Margin

Gross profit margin is the excess of sales revenue over the cost of goods sold and it keeps the balance for operating expenses, income tax, etc. Gross profit margin is calculated by dividing gross profit by sales. It shows the efficiency of the management in the operation and in fixing the price policy. A high gross profit margin indicates the ability of the company to manufacture its products at a low cost.

Ralph D. Kennedy and Stewart states : Gross Profit Margin may increase due to :

- 1) Higher sales price and the cost of goods sold remaining constant;
- 2) Lower cost of goods sold, sales price remaining same;
- 3) A combination of variation in sales prices and cost, the margin widening, and
- 4) An increase in the proportionate volume of higher margin².

The above mentioned factors are guidelines to the management on how to improve the gross profit margin of the company. The management of the company should investigate the lower gross profit margin whenever it occurs. The lower gross profit margin may reflect the following :

2. Ralph D. Kennedy and Stewart Y. McMullan, Financial Statements Form, Analysis and Interpretation, 5th edition Homewood, Illinois Richard D. Irwin Inc., 1968, P.53

- 1) a higher cost of goods sold due to the firm's inability to settle adequate policy to purchases raw materials at favourable price ;
- 2) a higher cost of production due to inefficient utilisation of plant and machinery; and
- 3) a fall in the selling prices or market reduction in the selling price of the company to obtain an increase in the sales volume and the cost of goods sold remain constant.

Gross profit ratio is calculated with the help of the following formula :

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

The gross profit margin of industrial companies in Jordan selected for study has been calculated by deducting the cost of goods sold from the value of net sales. Notably, the non-operating income and the non-operating expenses have not been taken into consideration while arriving at these figures.

COST OF GOODS SOLD

The cost of goods sold to net sales ratio in the industrial companies selected for study in Jordan for the period of eleven years is shown in table 3.3.

The table shows that the cost of goods sold for Arab Pharmaceutical Manufacturing Co. Ltd., Jordan Petroleum Refinery Co. Ltd., Jordan Phosphate Mines Co. Ltd., the Industrial Commercial and Agricultural Co. Ltd., Jordan Pipes Manufacturng Co. Ltd.⁶ and Jordan Cement Factories Co. Ltd. is always less than

Table : 3.1

Cost of Goods Sold of the Studied Companies from 1975 to 1985

Sr.No.	Name of the Company	(Amount in JDs)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	875252	1096889	1787799	1816643	1672137	2412291	3131164	3492791	7215784	4666793	6327268
2.	Jordan Petroleum Refinery Co.Ltd.	7057979	979570451	11262997	13694901	13425227	18313802	22561399	40271026	2.2E+03	2.6E+08	2.5E+08
3.	Jordan Phosphate Mines Co.Ltd.	7319315	12525571	11938027	14325724	19349340	33819409	42626657	47949805	45282992	64667203	56741004
4.	Industrial Commercial and Agricultural Co.Ltd	1974910	2786088	3205090	3096562	32339443	4182832	5522325	6429247	4962989	5429592	5697256
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	959572	2059936	2330989	3015409	2779639	2208606	2637475	2669304
6.	Arab Potas Co.Ltd	-	-	-	-	-	-	-	-	93358559	16780879	22131346
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	757747	883372	1016299	766359	1199013	1566149	2409016	1977968
8.	Jordan Cement Factories Co.Ltd.	2944880	3379801	3956341	3875623	16529502	19875764	27768007	38026030	28997589	27821550	36795807

Sources : Annual reports of the industrial companies selected for the study

Table : 3.2
Sales of the studied Companies from 1974 to 1985

Sr.No.	Name of the Company	(Amount in JDs)											
		Years											
		1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	1184882	1933811	1975263	2929402	5062721	3353161	4145524	5439094	6159375	6111948	8049631	10174880
2.	Jordan Petroleum Refinery Co.Ltd.	8704831	10741924	14563501	16418302	20873066	23986968	26584997	28670750	48986360	2.3E+09	2.7E+09	2.6E+08
3.	Jordan Phosphate Mines Co.Ltd.	20432831	21182033	20694487	18936231	21224802	28393910	48497909	59025922	56908582	57064809	78974794	74695739
4.	Industrial Commercial and Agricultural Co.Ltd	-	2297442	3309450	3739302	3577506	3752028	4908843	6799645	7599833	6169782	7236394	5752345
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	-	1165553	2576376	2933516	3556255	3288456	2727300	2380181	3429805
6.	Arab Potas Co.Ltd	-	-	-	-	-	-	-	-	-	5677259	14985212	29405245
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	-	630085	819533	824896	740599	1094065	1946072	2036379	2451153
8.	Jordan Cement Factories Co.Ltd.	-	5382090	4383682	5384738	5580117	19942727	23328387	31354957	43500276	4090133	43944809	47798853

Sources : Collected from the annual reports of the studied companies.

Table : 3.3

Cost Of Goods Sold To Net Sales Ratio (Percentage)

Sr.No.	Name of the Company	Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	45.27	55.53	61.03	59.32	49.87	58.91	57.57	55.27	52.62	57.98	62.18
2.	Jordan Petroleum Refinery Co.Ltd.	58.26	66.64	68.61	65.62	55.97	58.89	73.69	82.38	93.94	95.66	75.7
3.	Jordan Phosphate Mines Co.Ltd.	34.56	60.53	63.04	57.5	68.15	69.74	72.22	84.36	79.37	81.99	75.97
4.	Industrial Commercial and Agricultural Co.Ltd	86.11	84.19	85.72	86.56	86.32	95.22	91.32	79.34	80.45	88.86	86.62
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	82.33	79.96	79.47	84.8	84.5	80.99	76.03	77.83
6.	Arab Potas Co.Ltd.	-	-	-	-	-	-	-	-	164.44	111.98	75.26
7.	Jordan Spinning and Weaving CO.Ltd.	-	-	-	120.26	107.78	123.2	103.47	110.6	80.48	79.05	79.07
8.	Jordan Cement Factories Co.Ltd.	54.72	77.1	73.48	69.46	82.89	85.2	82.19	87.42	72.34	63.32	76.96

Sources : Computed from table 3.1 and table 3.2

100 per cent. The cost of goods sold for Arab Potash Co. Ltd. is more than 100 per cent in 1983 and 1984 but it is less than the sales volume in 1985. The cost of goods sold for Jordan Spinning and Weaving Co. Ltd. is more than its sales in 1978, 1979, 1980, 1981 and 1982 while in the remaining years the sales revenue is more than the cost of goods sold.

The ratio of gross profit to net sales in the industrial companies in Jordan for the period of eleven years covered by this study is represented in table 3.5. It can be seen from table 3.5 that the gross profit ratio in the Arab Pharmaceutical Manufacturing Co. Ltd. registered a decreasing trend in 1976 and 1977 as against 1975, an increasing trend in 1978 and 1979 as against 1977, decreased in 1980 as against 1979, an increasing trend in 1981, 1982 and 1984 as against 1980 and a decreasing trend in 1984 and 1985 as against 1983. Gross Profit margin in the Jordan Petroleum Refinery Co. Ltd. has a fluctuating trend from 1975 to 1978, an increasing trend in 1978 and 1979 as against 1977, a decreasing trend from 1980 to 1983 as against 1979, the ratio highly decreased in 1983 as against 1982 and improved slightly in 1984 and 1985. No doubt, a high gross profit margin is a sign of good management. The ratio of gross profit margin to net sales ratio in the Jordan Phosphate Mines Co. Ltd. has a decreasing trend from 1975 to 1982 and a fluctuating trend in the remaining years under study. The lowest gross profit margin generated by the Arab Pharmaceutical Manufacturing Co. Ltd. was 15.74 per cent in 1982 and the highest was 65.44 per cent in 1975. Gross Profit margin in the Industrial Commercial

Table : 3.4

Gross Profit of the Studied Companies from 1975 to 1985

Sr.No.	Name of the Company	(Amount in JDs)										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	1058558	973404	1141312	1246078	1681024	1704033	2307910	2755394	2396164	3383233	3347612
2.	Jordan Petroleum Refinery Co.Ltd.	3283045	4792050	5155305	7178165	10561741	3271195	6109351	8615834	9434954	11603064	12459865
3.	Jordan Phosphate Mines Co.Ltd.	13862718	3169116	5798204	6899078	9044570	14678500	16399265	9958777	11775805	14307591	17954335
4.	Industrial Commercial and Agricultural Co.Ltd	318632	523542	534212	480944	513585	726011	1277320	1570586	1206393	806802	655089
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	205981	516440	602327	540846	508777	518694	742706	769501
6.	Arab Potas Co.Ltd.	-	-	-	-	-	-	-	-	-(3658589)	-(1795467)	727389
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	-(127662)	-(63839)	-(191403)	-(25760)	-(114948)	379923	636363	513165
9.	Jordan Cement Factories Co.Ltd.	2437210	1003981	1426397	1704494	3413225	3452423	5586950	5474246	11092544	16123259	11013051

Sources : Collected from the annual reports of the studied companies

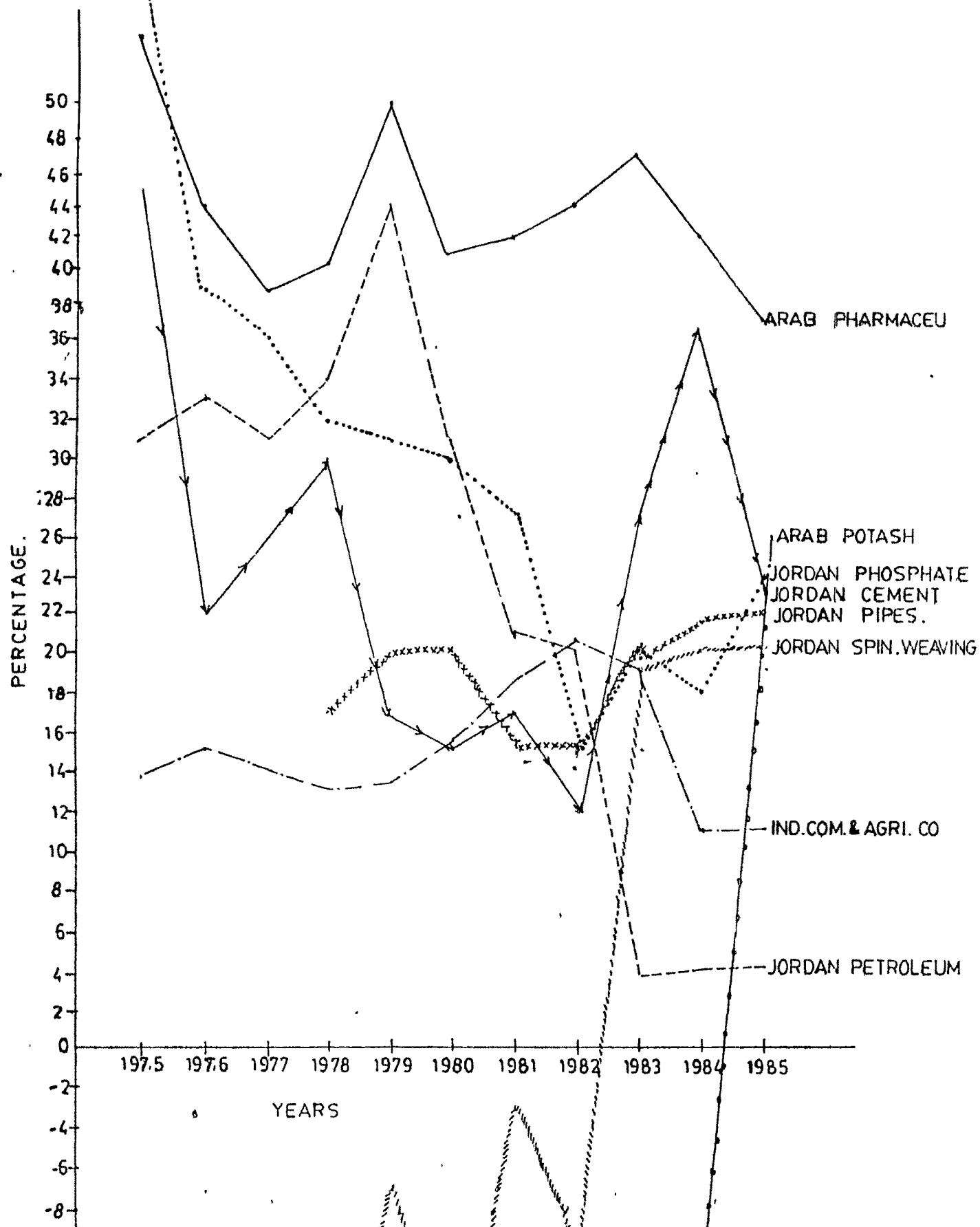
Table : 3.5

Gross Profit to Net Sales Ratio

Sr. No.	Name of the Company	(Percentage)											Average
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	54.73	44.47	38.97	40.68	50.13	41.09	42.43	44.73	47.58	42.02	37.84	41.04
2.	Jordan Petroleum Refinery Co.Ltd.	31.74	33.36	31.39	34.33	44.03	31.11	21.71	17.62	4.06	4.74	4.70	23.45
3.	Jordan Phosphate Mines Co.Ltd.	65.44	39.47	36.96	32.50	31.85	30.26	27.78	15.74	20.63	16.11	24.03	31.16
4.	Industrial Commercial and Agricultural Co.Ltd	13.89	15.81	14.28	13.44	13.68	14.78	18.78	20.66	19.55	11.14	11.38	15.21
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	17.67	20.04	20.53	15.20	15.47	19.01	21.97	22.17	19.00
6.	Arab Potas Co.Ltd.	-	-	-	-	-	-	-	-	(64.44)	(11.98)	24.74	(17.22)
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	(20.26)	(7.78)	(23.20)	(3.47)	(10.60)	19.52	20.95	20.93	(9.48)
8.	Jordan Cement Factories Co.Ltd.	45.28	22.90	26.52	30.54	17.11	14.80	17.81	12.58	27.66	36.68	23.04	24.99
	Consolidated total of the eight Companies	48.64	34.35	32.18	31.34	30.98	25.75	31.85	17.30	9.55	10.73	12.41	-

Sources : Calculated from table 3.2 and table 3.4

GRAPH 3.2

GROSS PROFIT MARGIN IN SELECTED
INDUSTRIAL COMPANIES IN JORDAN.

and Agricultural Co. Ltd. has increased in 1976 as against 1975, a decreasing trend in 1977 and 1978 as against 1976, an increasing trend from 1979 to 1982 as against 1978, a decreasing trend in 1983 and 1984 as against 1982 and slightly increased in 1985 as against 1984. In 1984 the gross profit margin to net sales ratio generated was 11.14 per cent, which was the least over the eleven years and the maximum gross profit to net sales ratio generated was 20.66 per cent in 1982. The gross profit to net sales ratio for Jordan Pipes Manufacturing Co. Ltd. shows an increasing trend in 1979 and 1980 as against 1978, decreased to 15.20 per cent in 1981 as against 20.53 per cent in 1980, an increasing trend from 1982 to 1985 as against 1981. The highest gross profit to net sales ratio generated by Jordan Pipes Manufacturing Co. Ltd. was 22.17 per cent in 1985 and the least was 15.20 per cent in 1981. The gross profit to net sales ratio for Arab Potash Co. Ltd. shows a negative sign as (-)64.44 and (-)11.98 per cent in 1983 and 1984 respectively and shows a positive sign as 24.74 per cent in 1985. The gross profit to net sales ratio for Jordan Spinning and Weaving Co. Ltd. shows a negative sign from 1978 to 1982, it means that the cost of goods sold is more than the sales revenue, the ratio shows a positive sign from 1983 to 1985. The highest gross profit ratio generated by the company was in 1984 as 20.95 per cent and the lowest was (-)23.20 per cent in 1980. The table also shows that the gross profit to net sales ratio for Jordan Cement Factories Co. Ltd. has decreased in 1976 to 22.90 per cent as against 45.28 per cent in 1975, an increasing trend in 1977 and 1978 as against 1976, a decreasing trend in 1979 and 1980 as

against 1978, a fluctuating trend from 1979 to 1983, an increasing trend in 1983 and 1984 as against 1982 and decreased in 1985 as against 1984. The highest gross profit ratio generated by the company was 45.28 per cent in 1975 and at the least was 12.58 per cent in 1982.

On an average, the highest gross profit to net sales ratio for the studied period was generated by the Arab Pharmaceutical Manufacturing Co. Ltd. as 44.04 per cent. It was the highest among all the companies included in this study. It followed by Jordan Phosphate Mines Co. Ltd. as 31.16 per cent, Jordan Cement Factories Co. Ltd. as 24.99 per cent, Jordan Petroleum Refinery Co. Ltd. as 23.68 per cent, Jordan Pipes Manufacturing Co. Ltd. as 19.00 per cent, the Industrial Commercial and Agricultural Co. Ltd. as 15.21 and the average of gross profit to net sales ratio for Jordan Spinning and Weaving Co. Ltd. and Arab Potash Co. Ltd. shows a negative percentage as (-)0.48 and (-)17.22 per cent respectively.

The consolidated total of the gross profit of the eight companies to net sales ratio, ranged from 9.55 per cent in 1983 to 48.64 per cent in 1975. It shows a decreasing trend from 1975 to 1980, decreased in 1981 as against 1980, a decreasing trend in 1982 and 1983 as against 1981 and shows an increasing trend in 1984 and 1985 as against 1983.

The ratio of profit to sales should also be studied along with gross profit to capital employed ratio. A company may show a higher gross profit to sales ratio and lower gross profit to capital employed ratio or vice-versa. If the amount of sales is

large, the gross profit to sales ratio will be lower but the gross profit to capital employed ratio will be higher if the amount of capital employed is small.

The volume of sales in the company is directly related with production. If production and utilisation of capacity in the manufacturing companies improves, the profit margin will increase due to large scale production. The effect of capacity utilisation on the amount of gross profit can be proved from a comparative analysis of the gross profit to sales ratio (table 3.5) and gross profit to capital employed ratio (table 3.6).

Table 3.6 shows the ratio of gross profit to net capital employed in the selected industrial companies in Jordan for the period of eleven years covered by this study.

Table 3.6 shows the ratio of gross profit to net capital employed for Arab Pharmaceutical Manufacturing Co. Ltd. indicates a decreasing trend in 1976 and 1977 as against 1975, an increasing trend in 1978, 1979 and 1980 as against 1977, decreased in 1981 as against 1980, an increasing trend in 1982 and 1983 as against 1981, decreased in 1984 as against 1983 and again increased in 1985 as against 1984. The Jordan Petroleum Refinery Co. Ltd. shows the gross profit to net capital employed ratio at 414.65 per cent in 1975, that is due to a large amount of gross profit and low amount of net capital employed in 1975, It decreased to 19.36 per cent in 1976, an increasing trend from 1977 to 1980 as against 1976, a fluctuating trend from 1980 to 1984 and an increasing trend in 1984 and 1985 as against 1983. The Jordan Phosphate Mines Co. Ltd. shows a decreasing trend from 1976 to 1978 as against 1975, the ratio increased in 1979 and

Table : 3.6

Gross Profit to Net Capital Employed Ratio

Sr.No.	Name of the Company	(Percentage)											Average 1955
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
1.	Arab Pharmaceutical Manufacturing Co. Ltd.	54.98	31.40	28.82	31.83	38.99	39.74	14.38	30.35	59.29	25.65	27.13	34.78
2.	Jordan Petroleum Refinery Co. Ltd.	414.65	19.36	20.57	29.35	36.09	40.14	12.48	16.39	10.85	15.87	15.20	57.17
3.	Jordan Phosphate Mines Co. Ltd.	100.61	51.41	35.80	25.64	28.58	42.14	37.70	19.56	21.70	27.15	33.69	38.59
4.	Industrial Commercial and Agricultural Co. Ltd	22.34	31.28	35.05	25.09	14.34	20.16	30.60	36.66	24.06	17.75	15.25	24.32
5.	Jordan Pipes Manufacturing Co. Ltd	-	-	-	11.64	29.61	33.23	20.95	19.17	13.98	24.99	25.16	22.36
6.	Arab Potas Co. Ltd.	-	-	-	-	-	-	-	-	(7.55)	(1.88)	7.05	0.53
7.	Jordan Spinning and Weaving Co. Ltd.	-	-	-	(8.66)	(7.14)	(30.94)	(12.02)	(2.71)	8.64	13.79	12.03	(2.12)
8.	Jordan Cement Factories Co. Ltd.	66.91	6.19	16.21	31.04	453.07	9.47	12.86	8.12	14.70	19.09	6.98	58.60
	Consolidated total of the eight Companies	92.78	25.06	25.86	27.09	35.55	28.03	27.00	14.92	9.96	13.42	12.86	-

Sources : Computed from table 3.4 and 4.4

1980 as against 1978, a declining trend in 1981 and 1982 as against 1980 and an increasing trend from 1983 to 1985 as against 1982. The Industrial Commercial and Agricultural Co. Ltd. shows an increasing trend in 1976 and 1977 as against 1975, a decreasing trend in 1978 and 1979 as against 1977, an increasing trend from 1980 to 1982 as against 1979 and again declining trend in the rest of the years under study. The gross profit to net capital ratio for Jordan Pipes Manufacturing Co. Ltd. shows an increasing trend in 1979 and 1980 as against 1978, a declining trend from 1981 to 1983 as against 1980 and again an increasing trend in 1984 and 1985 as against 1983. The Arab Potash Co. Ltd. shows a negative sign in 1983 and 1984 as (-)3.55 per cent and (-)1.88 per cent respectively and shows a positive sign in 1985 as 7.03 per cent. The Jordan Spinning and Weaving Co. Ltd. shows a negative sign from 1978 to 1982 and a fluctuating trend in the remaining years under study. The Jordan Cement Factories Co. Ltd. shows a fluctuating trend from 1975 to 1977, an increasing trend from 1977 to 1979 as against 1976, a fluctuating trend from 1979 to 1983, an increasing trend in 1983 and 1984 as against 1982 and decreased in 1985 as against 1984.

On an average, the highest gross profit to net capital employed ratio generated by the Jordan Cement Factories Co. Ltd. was 58.60 per cent followed by Jordan Petroleum Refinery Co. Ltd. with 57.17 per cent, Jordan Phosphate Mines Co. Ltd. as 38.59 per cent, Arab Pharmaceutical Manufacturing Co. Ltd. as 34.78 per cent, Industrial Commercial and Agricultural Co. Ltd. as 24.32 per cent, Jordan Pipes Manufacturing Co. Ltd. as 22.96 per cent,

Arab Potash Co. Ltd. as 0.53 per cent and the lowest by Jordan Spinning and Weaving Co. Ltd. as (-)2.12 per cent.

As regards to the consolidated total of the gross profit to net capital employed of the eight selected industrial companies in Jordan has decreased in 1976 to 25.06 per cent as compared to 92.78 per cent in 1975, an increasing trend from 1977 to 1979 as against 1976, a decreasing trend from 1980 to 1983 as against 1979 and shows a fluctuating trend from 1982 to 1985. The ratio ranges from 9.96 per cent in 1983 to 92.78 per cent in 1975.

If we make a comparative study between gross profit to net sales ratio (table 3.5) and gross profit to net capital employed ratio (table 3.6); the gross profit to net sales ratio of the Arab Pharmaceutical Manufacturing Co. Ltd. was lower than the ratio of gross profit to capital employed in 1975 and 1983 because the capital employed was less than the amount of sales during these years. In the Jordan Petroleum Refinery Co. Ltd. the ratio of gross profit to capital employed was higher than the gross profit to net sales ratio in 1975, 1980, 1983, 1984 and 1985. In the Jordan Phosphate Mines Co. Ltd. the gross profit to net sales ratio was higher than the gross profit to capital employed ratio in 1977, 1978, and 1979. The net sales during 1977, 1978 and 1979 were lower in amount as compared to the capital employed. In the Industrial Commercial and Agricultural Co. Ltd. the gross profit to capital employed ratio is higher than the gross profit to net sales ratio in all the years under study. It means that the net sales were excess in amount as compared to the capital employed. In the Jordan Pipes

Manufacturing Co. Ltd. the gross profit to net sales were excess in amount as compared to the capital employed. In the Jordan Pipes Manufacturing Co. Ltd. the gross profit to net sales ratio was higher than the gross profit to net capital employed ratio in 1978 and 1983. In the Arab Potash Co. Ltd. the gross profit to net sales ratio is higher than the gross profit to capital employed ratio was higher than the gross profit to net sales ratio in 1978, 1979, 1981 and 1982. In the Jordan Cement Factories Co. Ltd. the gross profit to capital employed ratio was higher than the gross profit to net sales ratio in 1975 1978 and 1979.

On an average, the gross profit to capital employed ratio was higher than the gross profit to sales ratio for Jordan Petroleum Refinery Co. Ltd., Jordan Phosphate Mine Co. Ltd., Industrial Commercial and Agricultural Co. Ltd., Jordan Pipes Manufacturing Co. Ltd., Arab Potash Co. Ltd. and Jordan Cement Factories Co. Ltd. It can be seen from table 3.5 and 3.6 that the gross profit to capital employed ratio was generally higher in comparison to the gross profit to net sales ratio because of an adequate investment in capital.

It can be concluded that if the capital employed is large in amount, the ratio of gross profit to capital employed will be lower.

Expense Ratio

Expense ratios are calculated by dividing each expense such as manufacturing expenses, administrative and general expenses, selling and distribution expenses and other operating expenses

etc. by net sales. Man Mohan and Goyal write "These ratios, which represent a summation of changes in net sales and in the expenses items, are valuable in comparing similar business or operating data from year to year for the same business"³.

R.L. Gupta and Radhaswamy states "These ratios also indicate whether these expenses in relation to sales are increasing or decreasing or stationary; which in its turn reflect the profit earning capacity of the concern. With the increasing sales if the management can limit these operating expenses, it indicates the efficiency of the management in improving the operating efficiency of the company. The lower the ratio, the greater is the profitability"⁴.

Manufacturing Expenses

Manufacturing or factory expenses are part of the operating expenses and include salaries and wages, power and fuel, bonus, gratuity, provident fund, welfare expenses, stores, spares, packing materials, depreciation charges, excise duty, insurance repair and maintenance, licence fee, rent etc. These expenses affect the industrial relations as well as the competitive power and good will of the company. To reduce the cost of production and increase the profitability of the company, proper control over these expenses is very essential.

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- 3. Man Mohan and Goyal S.N., Principles of Management Accounting, Agra, Sahitya Bhawan, 1980, P.407.
 - 4. Gupta R.L. and Radhaswamy M., Financial statement Analysis, New Delhi, Sultan Chand and Sons, 1985, P.30.
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The ratio of manufacturing or factory expenses to net sales in the selected industrial companies in Jordan for the period of eleven years covered by the study is shown in table 3.8.

The manufacturing expenses ratio is calculated by dividing the manufacturing expenses by net sales for a given period.

$$\begin{array}{lcl} \text{Manufacturing Expenses} & & \text{Manufacturing Expenses} \\ \text{Ratio} & = & \frac{\text{Net Sales}}{\text{Net Sales}} \times 100 \end{array}$$

It is evident from table 3.8 that the manufacturing expenses to net sales ratio for Arab Pharmaceutical Manufacturing Co. Ltd. increased in 1976 as against 1975 shows a decreasing trend in 1977 and 1978 as against 1976, an increasing trend in 1979 and 1980 as against 1978, decreased in 1981 as against 1980, an increasing trend in 1982, 1983 and 1984 as against 1981 and slightly decreased in 1985 as against 1984. The maximum percentage of manufacturing expenses is 9.22 percent in 1975 and the maximum 18.96 per cent in 1984. In the Jordan Petroleum Refinery Co. Ltd., the percentage of manufacturing expenses shows a fluctuating trend from 1975 to 1980, an increasing trend in 1982 and 1983 as against 1980 and slightly a decreasing trend in 1984 and 1985 as against 1983. The maximum percentage of manufacturing expenses is 96.92 percent in 1983 and the minimum is 60.41 percent in 1979. In the Jordan Phosphate Mines Co. Ltd., the percentage of manufacturing expenses shows a decreasing trend in 1976 and 1977 as against 1975, an increasing trend from 1978 to 1982 as against 1977, a decreasing trend in 1983 and 1984 as against 1982 and increased in 1985 as against 1984. The maximum percentage of manufacturing expenses is 74.62 per cent in 1975

Table : 3.7

Manufacturing Expenses of the studied Companies from 1975 to 1985

Sr.No.	Name of the Company	(Amount in JDs)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	178419	276451	354816	316841	512304	669317	579036	739353	797839	1526521	1848186
2.	Jordan Petroleum Refinery Co.Ltd.	7099750	10670103	11451033	11756009	14492909	17435613	-	72718501	225126169	357825591	254527224
3.	Jordan Phosphate Mines Co.Ltd.	115806974	11230693	7659272	9003125	13370915	24509542	33690083	41250721	38876892	42332161	46414354
4.	Industrial Commercial and Agricultural Co.Ltd	1974810	2786688	3205090	3096562	3238443	4132832	5522325	6029247	4962999	6429592	5097236
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	208975	277531	299893	407737	331526	325575	291630	297594
6.	Arab Potas Co.Ltd.	-	-	-	-	-	-	-	-	11355119	17701349	19712525
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	723637	844386	1056644	969433	1019886	1423411	2383392	2172072
8.	Jordan Cement Factories Co.Ltd.	2944880	3379801	3971751	3488899	16529502	19875764	12700419	12990112	15211066	25671173	36222949

Sources : From the annual reports of the studied companies.

Table : 3.8

Manufacturing Expenses to net sales Ratio

Sr.No.	Name of the Company	(Percentage)											
		Years											
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Average
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	9.22	13.99	12.11	10.34	15.27	16.14	10.64	12.00	13.05	18.96	18.16	13.62
2.	Jordan Petroleum Refinery Co.Ltd.	67.78	74.29	69.74	70.69	60.41	65.58	-	66.92	96.92	76.46	96.07	76.48
3.	Jordan Phosphate Mines Co.Ltd.	74.62	54.26	40.44	42.41	47.09	50.53	57.07	72.48	68.12	54.23	62.13	56.67
4.	Industrial Commercial and Agricultural Co.Ltd	86.10	94.18	86.71	86.55	86.31	85.21	81.21	79.33	80.44	88.85	18.61	84.86
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	17.92	10.77	10.22	11.46	10.09	11.93	8.62	8.67	11.2
6.	Arab Potas Co.Ltd.	-	-	-	-	-	-	-	-	200.01	118.12	67.03	128.39
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	114.84	103.03	128.09	130.89	94.07	73.14	78.49	68.61	101.39
8.	Jordan Cement Factories Co.Ltd.	54.71	77.09	73.75	62.52	82.88	85.19	40.5	29.63	37.94	58.41	75.78	61.66
	Consolidated total of the eight Companies	67.86	63.37	56.55	56.3	59.48	61.16	58.11	58.83	84.66	83.08	83.5	-

Sources : Computed from table 3.7 and 3.2

and a minimum of 40.44 per cent in 1977. In the Industrial Commercial and Agricultural Co. Ltd., the percentage of manufacturing expenses shows a fluctuating trend from 1975 to 1977, a decreasing trend from 1979 to 1982 as against 1978 and again a fluctuating trend from 1983 to 1985. The maximum percentage of manufacturing expenses consumed in 1984 is 88.85 per cent and the minimum is 79.33 per cent in 1982. In the Jordan Pipes Manufacturing Co. Ltd., the percentage of manufacturing expenses shows a decreasing trend in 1979 and 1980 as against 1978 and then shows a fluctuating trend in the rest of the years under study. The maximum percentage of manufacturing expenses is 17.92 per cent in 1978 and the minimum is 8.62 per cent in 1984. In the Arab Potash Co. Ltd., the percentage of manufacturing expenses shows a decreasing trend from 1983 to 1985 as against 1983. The maximum percentage was 200.00 percent in 1983 and the minimum was 67.03 per cent in 1985. In the Jordan Spinning and Weaving Co. Ltd., the percentage of manufacturing expenses decreased in 1979 as against 1978, an increasing trend in 1980 and 1981 as against 1978, an increasing trend in 1980 and 1981 as against 1979, a decreasing trend in 1982 and 1983 as against 1981 and an increasing trend in 1984 and 1985 as against 1983. The maximum percentage of manufacturing expenses was 130.89 percent in 1981 and the minimum was 73.14 per cent in 1983. In the Jordan Cement Factories Co. Ltd., the percentage of manufacturing expenses increased in 1976 as against 1975, shows a decreasing trend in 1977 and 1978 as against 1976, an increasing trend in 1979 and 1980 as against 1978, a decreasing trend in 1981 and 1982 as against 1980 and an increasing trend from 1983 to 1985 as

against 1982.

On an average, the maximum manufacturing expenses is consumed by Arab Potash Co. Ltd., followed by Jordan Spinning and Weaving Co. Ltd., Industrial Commercial and Agricultural Co. Ltd., Jordan Petroleum Refinery Co. Ltd., Jordan Cement Factories Co. Ltd., Jordan Phosphate Mines Co. Ltd., Arab Pharmaceutical Manufacturing Co. Ltd. and the minimum was consumed by Jordan Pipes Manufacturing Co. Ltd.

Regarding the consolidated total of the manufacturing expenses of the eight companies, the percentage of manufacturing expenses shows a decreasing trend from 1976 to 1978 as against 1975, an increasing trend in 1979 and 1980 as against 1978, decreased in 1981 as against 1980, an increasing trend 1982 and 1983 as against 1981, decreased in 1984 as against 1983 and increased in 1985 as against 1984.

Administration and General Expenses

Administration and general expenses include directors' fees, directors' remuneration, payment to auditors, managerial remuneration, cost audit fees, postage, stationery, research and development expenses, bank charges, rent and rates, office insurance, printing, telephone, postage, telegram and all other miscellaneous expenses which are not classified under any other specific heads of expenses. The administration and the general expenses ratio is obtained by dividing the total of administration and general expenses by net sales.

$$\begin{array}{lcl} \text{Administration and} & & \text{Administration and} \\ \text{General Expenses} & = & \text{General Expenses} \\ \text{Ratio} & & \text{-----} \times 100 \\ & & \text{Net Sales} \end{array}$$

Table 3.10 shows the ratio of administration and general expenses to net sales in the selected industrial companies in Jordan for the period of eleven years covered by this study.

Table 3.10 indicates the administration and general expenses to net sales ratio for Arab Pharmaceutical Manufacturing Co. Ltd. and shows a fluctuating trend from 1975 to 1978, an increasing trend from 1978 to 1983 as against 1977 and shows a decreasing trend in 1984 and 1985 as against 1983. The maximum percentage consumed by the company was 12.66 percent in 1983 and the minimum was 3.63 per cent in 1975. In the Jordan Petroleum Refinery Co. Ltd., the percentage of administration and the general expenses shows a fluctuating trend from 1975 to 1978, an increasing trend in 1978 and 1979 as against 1977, decreased in 1980 as against 1979, a decreasing trend from 1982 to 1984 as against 1980 and slightly increased in 1985 as against 1984. The maximum percentage consumed by the company was 25.96 per cent in 1979 and the minimum was 0.61 per cent in 1984. In the Jordan Phosphate Mines Co. Ltd., the percentage shows an increasing trend from 1975 to 1978, a decreasing trend in 1979 and 1980 as against 1978, increased in 1981 as against 1980 and shows a decreasing trend in the remaining period under study as against 1981. The maximum percentage consumed was 6.92 percent in 1981 and the minimum was 3.43 per cent in 1985. In the Industrial Commercial and Agricultural Co. Ltd., the percentage of administration and general expenses shows an increasing trend in 1976 and 1977 as

Table : 3.9

Administration and General Expenses of Studied Companies from 1975 to 1985

Sr.No.	Name of the Company	(Amount in JDs)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	70275	161653	117170	157160	179834	224203	516865	599990	774231	854254	788294
2.	Jordan Petroleum Refinery Co.Ltd.	1279414	2763434	2575039	4059899	6204623	4422297	-	2911423	1791536	1555640	1920640
3.	Jordan Phosphate Mines Co.Ltd.	748693	1104694	1127721	1455892	1614722	2347859	4085321	2379793	2307931	2731743	2562066
4.	Industrial Commercial and Agricultural Co.Ltd	125353	187931	242264	216270	237644	277487	315746	621716	378224	627368	780083
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	184775	181331	232390	192129	227908	252690	206725	192111
6.	Arab Potash Co.Ltd	-	-	-	-	-	-	-	-	10544574	12622475	14567786
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	145884	225608	275056	117965	138024	167971	317651	248412
8.	Jordan Cement Factories Co.Ltd.	175480	319439	1019641	1381694	418097	317935	446061	547461	714007	847032	1618267

Sources : From the annual reports of the different companies under study.

Table : 3.10

Administration and General Expenses to Net Sales Ratio

Sr. No.	Name of the Company	(Percentage)											
		Years											
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Average
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	3.63	8.18	3.99	5.13	5.35	5.4	9.5	9.73	12.66	10.61	7.74	7.44
2.	Jordan Petroleum Refinery Co.Ltd.	12.37	16.46	15.6	19.45	25.86	16.63	-	5.95	0.77	0.61	0.72	11.46
3.	Jordan Phosphate Mines Co.Ltd.	3.53	5.33	5.95	6.85	5.68	4.84	6.92	4.18	4.04	3.45	3.43	4.92
4.	Industrial Commercial and Agricultural Co.Ltd	5.46	5.67	6.47	6.1	6.38	5.65	4.64	8.18	6.13	9.66	13.56	6.99
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	15.85	7.03	7.92	5.4	6.93	9.26	6.11	5.6	8.01
6.	Arab Potas Co.Ltd.	-	-	-	-	-	-	-	-	185.73	84.23	49.54	106.5
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	23.15	27.52	33.34	15.92	12.73	8.63	10.46	10.13	17.73
8.	Jordan Cement Factories Co.Ltd.	3.26	7.28	18.93	24.76	2.09	1.36	1.42	1.25	1.78	1.92	3.38	6.13
	Consolidated total of the eight Companies	5.83	9.25	10.83	13.55	10.94	7.28	6.12	4.6	4.8	4.65	5.16	-

Sources : Computed from table 3.9 and 3.2

against 1975, a decreasing trend from 1978 to 1981 as against 1975, a decreasing trend from 1978 to 1981 as against 1977, increased in 1982 as against 1981, decreased in 1983 as against 1982 and shows an increasing trend in 1984 and 1985 as against 1983. The maximum percentage of administration and general expenses was 13.56 per cent in 1985 and the minimum was 4.64 per cent in 1981. In the Jordan Pipes Manufacturing Co. Ltd., the percentage of administration and general expenses consumed by the company shows a fluctuating trend from 1978 to 1982, an increasing trend in 1982 and 1983 as against 1981 and a decreasing trend in 1984 and 1985 as against 1983. The maximum percentage consumed by the company was 15.85 per cent in 1978 and the minimum was 5.40 per cent in 1981. In the Arab Potash Co. Ltd. the percentage of administration and general expenses shows a decreasing trend from 1983 to 1985. The maximum percentage was 185.73 per cent in 1983 and the minimum was 49.54 per cent in 1985. In the Jordan Spinning and Weaving Co. Ltd., the percentage of administration and general expenses shows an increasing trend in 1979 and 1980 as against 1978, a decreasing trend from 1981 to 1983 as against 1980, increased in 1984 and decreased in 1985 as against 1983. The maximum percentage was 33.34 per cent in 1980 and the minimum was 10.13 per cent in 1985. In the Jordan Cement Factories Co. Ltd., the percentage of administration and general expenses shows an increasing trend from 1975 to 1978 against 1975, an increasing trend in 1979 and 1980 as against 1978, a fluctuating trend from 1980 to 1983 and an increasing trend in 1984 and 1985 as against 1983. The maximum percentage consumed by

the company was 24.76 per cent in 1978 and the minimum was 1.25 per cent in 1982.

On an average, the maximum administration and general expenses was consumed by the Arab Potash Co. Ltd. followed by Jordan Spinning and weaving Co. Ltd., Jordan Petroleum Refinery Co. Ltd. Jordan Pipes Manufacturing Co. Ltd., Arab Pharmaceutical Manufacturing Co. Ltd., Industrial Commercial and Agricultural Co. Ltd., Jordan Cement Factories Co. Ltd. and lastly by Jordan Phosphate Mines Co. Ltd.

Regarding the consolidated total of the administration and general expenses of the eight companies, the percentage varied from 4.60 per cent in 1982 to 13.55 per cent in 1978. It shows an increasing trend from 1975 to 1978, a decreasing trend from 1979 to 1982 as against 1978, slightly increased in 1983 as against 1982 and than a decreasing trend in 1984 and 1985 as against 1983.

Selling and Distribution Expenses

Selling and distribution expenses include all kinds of expenses which can facilitate and develop the sales and distribution of the products. These expenses include transportation cost, expenses on advertisement, freight outward, commission on sales, travelling expenses etc. These expenses are essential for selling goods and for creating new customers in the market. For a new company these expenses increase considerably because they have to establish themselves in the market.

The selling and distribution expenses have been calculated by dividing the total of selling and distribution expenses by net

sales.

$$\begin{array}{lcl} \text{Selling and Distribution} & & \text{Selling and Distri-} \\ \text{Expenses Ratio} & = & \frac{\text{bution Expenses}}{\text{Net Sales}} \times 100 \end{array}$$

Table 3.12 shows the ratio of selling and distribution expenses to net sales in the selected industrial companies in Jordan for the period of eleven years covered by this study.

Table 3.12 shows that the selling and distribution expenses to net sales ratio for the Arab Pharmaceutical Manufacturing Co. Ltd. shows a fluctuating trend from 1975 to 1979, a decreasing trend in 1980 and 1981 as against 1979, an increasing trend in 1982 and 1983 as against 1981 and again a decreasing trend in 1984 and 1985 as against 1983. The maximum percentage consumed was 8.96 per cent in 1983 and the minimum was 6.12 per cent in 1981. In the Jordan Petroleum Refinery Co. Ltd., the percentage of selling and distribution expenses increased in 1976 as against 1975, a decreasing trend from 1977 to 1979 as against 1976, an increasing trend in 1980 and 1982 as against 1979, a decreasing trend in 1983 and 1984 as against 1982 and slightly increased in 1985 as against 1984. The maximum percentage consumed by the company was 8.21 per cent in 1982 and the minimum was 2.49 per cent in 1984. In the Jordan Phosphate Mines Co. Ltd., the percentage of selling and distribution expenses shows an increasing trend in 1976 and 1977 as against 1975, a decreasing trend from 1978 to 1981 as against 1977 and an increasing trend from 1982 to 1985 as against 1981. The maximum percentage consumed by the company was 31.35 per cent in 1977 and the

Table : 3.11
Selling and Distribution Expenses of the Studied Companies from 1975 to 1985

Sr.No.	Name of the Company	(Amount in JDs)									
		Years					Years				
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	123188	144826	196125	225941	240572	285028	33313132	388339	547748	608996
2.	Jordan Petroleum Refinery Co.Ltd.	449972	853271	971391	809748	923438	1126251	-	3521274	6273929	6670846
3.	Jordan Phosphate Mines Co.Ltd.	3690451	5591787	5937635	6534401	7796888	10958581	10241730	10694774	11706197	16467545
4.	Industrial Commercial and Agricultural Co.Ltd	-	-	-	-	-	-	-	-	-	236739
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	-	-	-	-	-	-	-
6.	Arab Potash Co.Ltd	-	-	-	-	-	-	-	-	-	119373
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	23623	50294	72980	67518	96005	152702	144175
8.	Jordan Cement Factories Co.Ltd.	-	-	-	-	20266	15411	21622	40840	52368	113046
											127324

Sources : From the annual reports of the different companies under study.

Table : 3.12

Selling and Distribution Expenses to Net Sales Ratio

(Percentage)

Sr. No.	Name of the Company	Years											
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Average
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	6.37	7.33	6.69	7.37	7.17	6.97	6.12	6.5	8.96	7.56	7.44	7.1
2.	Jordan Petroleum Refinery Co.Ltd.	4.35	5.94	5.91	3.87	3.84	4.23	-	7.2	2.74	2.49	2.78	4.53
3.	Jordan Phosphate Mines Co.Ltd.	17.42	27.02	31.35	29.78	27.45	22.59	17.35	18.79	20.51	20.65	20.95	23.18
4.	Industrial Commercial and Agricultural Co.Ltd	-	-	-	-	-	-	-	-	6.13	3.27	7.74	5.5
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	-	-	-	-	-	-	-	-	-
6.	Arab Potas Co.Ltd.	-	-	-	-	-	-	-	-	-	-	0.4	0.4
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	3.74	6.13	8.84	9.11	8.85	7.84	4.74	4.96	6.77
8.	Jordan Cement Factories Co.Ltd.	-	-	-	-	0.1	0.06	0.06	0.09	0.13	0.25	0.26	0.13
	Consolidated total of the eight Companies	12.74	17.79	18.55	16.58	11.8	12.05	11.04	9.79	5.58	5.93	5.65	-

Sources : Computed from table 3.11 and 3.2

minimum was 17.35 per cent in 1981. The percentage of selling and distribution expenses to net sales are not known for the Industrial Commercial and Agricultural Co. Ltd., the Jordan Pipes Manufacturing Co. Ltd. and the Arab Potash Co. Ltd. due to unavailability of data regarding these companies. In the Jordan Spinning and Weaving Co. Ltd., the percentage of selling and distribution expenses shows an increasing trend from 1978 to 1981, a decreasing trend from 1978 to 1981, a decreasing trend from 1982 to 1984 as against 1981 and slightly increased in 1985 as against 1984. The maximum percentage consumed by the company was 9.11 per cent in 1981 and the minimum was 3.74 per cent in 1978. In the Jordan Cement Factories Co. Ltd., the percentage of selling and distribution expenses slightly decreased in 1980 as against 1979, remaining stable in 1981 as against 1980 and shows an increasing trend in the remaining years under study as compared to 1981. The maximum percentage consumed by the company was 0.26 per cent in 1985 and the minimum was 0.06 per cent in 1980 and 1981.

On an average the maximum percentage of selling and distribution expenses was consumed by the Jordan Phosphate Mines co. Ltd., followed by Arab Pharmaceutical Manufacturing Co. Ltd., Jordan Spinning and Weaving Co. Ltd., Industrial Commercial and Agricultural Co. Ltd., Jordan Petroleum Refinery Co. Ltd., Arab Potash Co. Ltd. and lastly by Jordan Cement Factories Co. Ltd.

Regarding the consolidated total of the selling and distribution expenses of the eight companies, the percentage varied from 5.58 percent in 1983 to 18.65 per cent in 1977. The percentage shows an increasing trend in 1976 and 1977 as against

1975, a decreasing trend in 1978 and 1979 as against 1977, increased in 1980 as against 1979, a decreasing trend from 1981 to 1983 as against 1980, increased in 1984 as against 1983 and decreased in 1985 as against 1984.

Operating Profit Before Taxes

Operating profit is the residual value which is left out after the deduction of operating expenses from the operating income. Operating expenses include the cost of goods sold, the manufacturing expenses, the general and administration expenses, the selling and distribution expenses, depreciations and other financial charges. We arrive at gross profit by deducting cost of goods sold from the amount of net sales. If other operating expenses are subtracted from the gross profit figure, the result is operating profit before taxes. We arrive at the figure of net profit margin by adding non-operating income and deducting non-operating expenses to the operating profit.

Operating profit can increase either when the operating expenses remain the same and sales volume increase or when the operating expenses are brought down at same level of sales. Sales volume can be increased either by increasing the number of units sold or by increasing the price per unit. Thus, operating profit may be increased either by reducing all or some parts of the operating expenses or increasing the sales volume or both together.

Operating profit ratio is reliable and significant index of the operating efficiency of the company.

In case of a company whose major sources of income and expenses are non-operating, this ratio can not be used as a measure of profitability. Some of the selected industrial companies for this study have been paying taxes on the profits earned by them from year to year, whereas some others were exempted from taxes either because of losses or because of their profit being exempted from taxes.

Table 3.14 shows the operating profit ratio of the selected industrial companies in Jordan for a period of eleven years covered in the study.

The ratio of operating profit before taxes is calculated by dividing the operating profit before taxes by net sales for a given period. This can be expressed as follows :

$$\begin{array}{lcl} \text{Operating Profit} & & \text{Operating Profit} \\ \text{Before taxes} & = & \text{Before Taxes} \\ \text{Ratio} & & \text{Net Sales} \end{array} \times 100$$

Table 3.14 shows the operating profit before taxes to net sales ratio. In the Arab Pharmaceutical Manufacturing Co. Ltd. the operating profit before taxes shows a decreasing trend in 1976 and 1977 as against 1975, increased in 1978 as against 1977, a decreasing trend in 1979 and 1980 as against 1978, a fluctuating trend from 1981 to 1984 and a decreasing trend in 1984 and 1985 as against 1983. The maximum operating profit generated was 47.29 per cent in 1975 and the minimum was 18.21 per cent in 1985. In the Jordan Petroleum Refinery Co. Ltd., the percentage of operating profit before taxes shows a decreasing trend in 1976 and 1977 as against 1975, an increasing trend from

Table : 3.13

Operating Profit before taxes for the studied companies from 1975 to 1985.

Sr.No.	Name of the Company	(Amount in JDs)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	914532	676577	905047	1090387	1086299	988233	1404625	1491079	1483987	1690173	1853492
2.	Jordan Petroleum Refiner/ Co.Ltd.	1398951	1743879	1283357	1941825	2963489	3857085	4909008	5734411	1269480	3276573	2150561
3.	Jordan Phosphate Mines Co.Ltd.	1859981	3205585	3957889	3867347	5761746	12064817	10280466	3849139	7103894	10649976	14726966
4.	Industrial Commercial and Agricultural Co.Ltd	194639	355411	291948	262674	273941	448524	961574	948780	828169	179434	-(570697)
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	21206	197178	231568	207421	202093	195054	287549	555990
6.	Arab Potash Co.Ltd	-	-	-	-	-	-	-	-	-(1420312-	1420312-	7413260)
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	-(296979)	-(339741)	-(539439)	-(211243)	-(368977)	59250	174577	143115
8.	Jordan Cement Factories Co.Ltd.	2241730	684442	1019641	1381694	2974862	3119277	3359815	3301756	5344944	8819892	-(912617)

Sources : From the annual reports of the studied companies.

Table : 3.14

Operating Profit Before Taxes to Net Sales-Ratio

Sr.No.	Name of the Company	(Percentage)										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985 Average
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	47.29	34.25	33.89	32.66	32.45	23.83	25.82	24.2	24.28	20.99	18.21 28.62
2.	Jordan Petroleum Refinery Co.Ltd.	13.52	9.49	7.81	9.3	12.43	14.5	17.12	11.66	6.54	1.22	1.18 8.97
3.	Jordan Phosphate Mines Co.Ltd.	8.68	15.49	20.9	18.22	20.29	24.87	17.41	6.76	12.44	13.48	19.71 16.2
4.	Industrial Commercial and Agricultural Co.Ltd	8.48	10.13	7.8	7.34	7.3	9.13	14.14	12.48	15.42	2.47	(9.92) 7.52
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	1.81	7.65	7.89	5.83	6.14	7.15	9.5	16.21 7.64
6.	Arab Potas Co.Ltd.	-	-	-	-	-	-	-	-	-250.17	-95.22	(25.21) (123.66)
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	(47.13)	(41.45)	(55.39)	(28.52)	(32.19)	5.04	5.74	5.83 (25.00)
8.	Jordan Cement Factories Co.Ltd.	42.02	15.61	18.93	24.76	14.91	13.37	10.71	7.59	13.33	20.07	(1.90) 16.3
	Consolidated total of the eight Companies	16.06	14	15.83	14.57	15.62	18.13	15.42	9.38	0.59	2.49	2.62 -

Sources : Computed from table 3.13 and 3.2

1978 to 1981 as against 1977, a decreasing trend in 1982 and 1983 as against 1981 increased in 1984 as against 1983 and decreased in 1985 against 1984. The maximum percentage generated was 17.12 per cent in 1981 and the minimum was 0.54 per cent in 1983. In the Jordan Phosphate Mines Co. Ltd., the percentage of operating profit before taxes shows an increasing trend in 1976 and 1977 as against 1975, decreased in 1978 as against 1977, an increasing trend in 1979 and 1980 as against 1978, a decreasing trend in 1981 and 1982 as against 1980 and an increasing trend in the remaining period under study as against 1982. The maximum percentage generated by the company was 24.87 per cent in 1980 and the minimum was 6.76 percent in 1982. In the Industrial Commercial and Agricultural Co. Ltd., the percentage of operating profit before taxes increased in 1976 as against 1975, shows a decreasing trend from 1977 to 1979 as against 1976, shows an increasing trend in 1980 and 1981 as against 1979, shows a fluctuating trend from 1981 to 1984 and shows a negative percentage in 1985. The maximum percentage generated by the company was 14.14 per cent in 1981 and the minimum was (-)9.92 per cent in 1985. In the Jordan Pipes Manufacturing Co. Ltd., the percentage of operating profit before taxes shows an increasing trend in 1979 and 1980 as against 1978, decreased in 1981 as against 1980 and shows an increasing trend in the rest of the years under study as against 1981. The maximum percentage generated was 16.21 per cent and the minimum was 1.81 per cent in 1978. In the Arab Potash Co. Ltd., the percentage of operating profit before taxes shows a negative sign from 1983 to 1985. In the Jordan Spinning and Weaving Co. Ltd., the percentage of

operating profit before taxes shows a negative sign from 1978 to 1982 and an increasing trend from 1983 to 1985 as against 1982. The maximum percentage generated was 5.83 per cent in 1985 and the minimum was (-)65.39 per cent in 1980. In the Jordan Cement Factories Co. Ltd., the percentage of operating profit before taxes decreased in 1976 as against 1975, an increasing trend in 1977 and 1978 as against 1976, a decreasing trend from 1979 to 1982 and shows a negative sign in 1985. The maximum percentage generated by the company was 42.02 per cent in 1975 and the minimum was (-)1.90 per cent in 1985.

On an average, the maximum percentage of operating profit before taxes was generated by the Arab Pharmaceutical Manufacturing Co. Ltd., followed by Jordan Cement Factories Co. Ltd., Jordan Phosphate Mines Co. Ltd., Jordan Petroleum Refinery Co. Ltd., Jordan Pipes Manufacturing Co. Ltd. Industrial Commercial and Agricultural Co. Ltd., Jordan Spinning and weaving Co. Ltd. and lastly by Arab Potash Co. Ltd.

Regarding the consolidated total of the operating profit before taxes of the eight companies, shows a fluctuating trend from 1975 to 1979, an increasing trend in 1979 and 1980 as against 1978, a decreasing trend from 1981 to 1983 as against 1980 and an increasing trend in 1984 and 1985 as against 1983. The maximum percentage generated was 18.13 per cent in 1980 and the minimum was 0.59 per cent in 1983.

Operating Profit After Taxes

Under this heading, the taxes have been deducted from the operating profit. Operating profit after taxes indicated the

ability of the management to leave margin after deduction of all kinds of expenses which are related to the business operation.

The operating profit after taxes ratio is calculated by dividing the profit before taxes by net sales for a given period.

$$\begin{array}{rcl} \text{Operating Profit} & & \text{Operating Profit} \\ & & \text{After Taxes} \\ \text{After Taxes Ratio} & = & \frac{\text{-----}}{\text{Net Sales}} \times 100 \end{array}$$

Table 3.16 shows the operating profit after taxes to net sales ratio for the Arab Pharmaceutical Manufacturing Co. Ltd., it also shows a decreasing trend in 1976 and 1977 as against 1975, an increasing trend in 1978 and 1979 as against 1977 and showed a fluctuating trend in the remaining years under study. The maximum percentage generated in 1975 was 28.40 per cent and the minimum was 14.09 per cent in 1984. In the Jordan Cement Factories Co. Ltd., the percentage of operating profit after taxes decreased in 1976 as against 1975, shows a negative sign from 1977 to 1980, an increasing trend in 1981 and 1982 as against 1980 and a fluctuating trend from 1983 to 1985. The maximum percentage generated by the company in 1982 was 7.31 per cent and the minimum was (-)2.74 per cent in 1978. In the Jordan Phosphate Mines Co. Ltd., the percentage of operating profit after taxes shows an increasing trend in 1976 and 1977 as against 1975, slightly decreased in 1978 as against 1977, an increasing trend in 1979 and 1980 as against 1978, a decreasing trend in 1981 and 1982 as against 1980 and an increasing trend from 1983 to 1985 as against 1982. The maximum percentage generated in 1980 was 14.45 per cent and the minimum as 3.69 per cent in 1982. In the Industrial Commercial and Agricultural Co. Ltd., the

Table : 3.15
Operating Profit After Taxes for the Studied Companies from 1975 to 1985.

Sr.No.	Name of the Company	(Amount in JDs)										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	549332	436577	586226	618595	758299	591233	833918	941079	953987	1136584	1565992
2.	Jordan Petroleum Refinery Co.Ltd.	327086	19544	-(105074)	-(572366)	-(633777)	-(396015)	1753620	3136074	562916	2534120	1721295
3.	Jordan Phosphate Mines Co.Ltd.	1002821	1603110	2011011	2131598	228747	7008944	5561974	2104714	2166560	5399976	9056686
4.	Industrial Commercial and Agricultural Co.Ltd	107749	185351	151209	166742	214275	275842	591368	618466	579309	122291	-(570697)
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	21206	197178	231568	207421	202093	195054	287549	535390
6.	Arab Potash Co.Ltd	-	-	-	-	-	-	-	-	-(1420312)	-(1441914)	-(7412260)
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	-(296979)	-(33741)	-(539437)	-(211243)	-(348977)	29250	174577	143115
8.	Jordan Cement Factories Co.Ltd.	1918599	341311	444427	144536	1814365	2102542	2236323	2258411	3705008	6330636	-(976514)

Sources : From the annual reports of the studied companies

Table : 3.16

Operating Profit After Taxes to Net Sales Ratio

Sr.No.	Name of the Company	(Percentage)										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	28.4	22.1	20.01	20.23	22.61	14.25	15.33	15.27	15.6	14.09	15.39
2.	Jordan Petroleum Refinery Co.Ltd.	7.16	9.13	-0.62	-2.74	-2.64	-(1.48)	6.11	6.41	0.21	0.94	0.64
3.	Jordan Phosphate Mines Co.Ltd.	4.73	7.74	10.61	10.04	11.5	14.45	9.42	3.69	3.79	0.33	12.12
4.	Industrial Commercial and Agricultural Co.Ltd	4.52	5.6	4.04	4.66	5.71	5.61	8.69	8.13	9.39	1.68	-9.92
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	1.81	7.65	7.89	5.83	6.14	7.15	3.5	10.21
6.	Arab Potash Co.Ltd.	-	-	-	-	-	-	-	-	-250.17	-96.22	-(25.21)
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	-(47.13)	-(41.45)	-(65.39)	-(28.52)	-(32.19)	3.04	5.74	5.63
8.	Jordan Cement Factories Co.Ltd.	35.64	7.78	8.25	2.59	9.09	9.01	7.13	5.19	9.24	14.4	-(2.04)
	Consolidated total of the eight Companies	9.48	5.78	6.55	3.94	6.39	8.35	8.09	5.52	-(1.71)	0.36	0.93

Sources : Computed from table 3.15 and 3.2

Note : Operating Profit Before and After Taxes are the same for Jordan Pipes Manufacturing Co., Arab Potash Co. and Jordan Spinning and Weaving Co. because those Companies are exempted from taxes. The Arab Potash Co. Ltd. is exempted from taxes upto 1984.

percentage of operating profit shows a fluctuating trend from 1975 to 1978, an increasing trend in 1978 and 1979 as against 1977, a fluctuating trend from 1980 to 1984 and shows a negative sign in 1985. The maximum percentage generated in 1983 was 9.39 per cent and the minimum was (-)9.92 per cent in 1985. In the Jordan Pipes Manufacturing Co. Ltd., the percentage of operating profit after taxes shows an increasing trend from 1978 to 1980, decreased in 1981 as against 1980 and shows an increasing trend from 1982 to 1985 as against 1981. The maximum percentage generated in 1985 was 16.21 per cent and the minimum was 1.81 per cent in 1978. In the Arab Potash Co. Ltd., the percentage of operating profit after taxes shows a negative sign from 1983 to 1985. In Jordan Spinning and Weaving Co. Ltd., the percentage of operating profit after taxes shows a negative sign from 1978 to 1982 and shows an increasing trend from 1983 to 1985 as against 1982. The maximum percentage generated was 5.85 per cent in 1985 and the minimum was (-)65.39 per cent in 1980. In the Jordan Cement Factories Co. Ltd., the percentage of operating profit after taxes shows a fluctuating trend from 1975 to 1980, increased in 1981 as against 1980, decreased in 1982 as against 1981, an increasing trend in 1983 and 1984 as against 1982 and shows a negative sign in 1985. The maximum percentage generated in 1975 was 35.64 per cent and the minimum was (-)2.04 per cent in 1985.

On an average, the maximum percentage of operating profit after taxes was generated by the Arab Pharmaceutical Manufacturing Co. Ltd., followed by Jordan Cement Factories Co. Ltd., Jordan Phosphate Mines Co. Ltd., Jordan Pipes Manufacturing

Co. Ltd., Industrial Commercial and Agricultural Co. Ltd., Jordan Petroleum Refinery Co. Ltd., Jordan Spinning and Weaving Co. Ltd. and lastly by Arab Potash Co. Ltd.

Regarding consolidated total of the operating profit after taxes of the eight companies, the percentage varied from 9.48 per cent in 1975 to (-)1.71 per cent in 1983. The percentage shows a fluctuating trend from 1975 to 1979, a decreasing trend from 1981 to 1983 as against 1980 and shows an increasing trend in 1984 and 1985 as against 1983.

Net Profit Margin

Net profit margin or net profit to sales ratio establishes the relationship between net profit and sales. Net profit may be calculated in two ways: firstly the calculating of net profit before taxes and secondly net profit after taxes. Net profit before taxes is that part of the earnings which remains with the company after deducting all kinds of expenses except taxes, while net profit after taxes is the portion of earnings which remains with the company after deducting all kinds of expenses including taxes. Net profit margin shows the efficiency of management in manufacturing, administering, selling and marketing the products of the company. It measures the overall ability of the company to turn each dinar of sales into net profit. If the net profit margin is not sufficient, the company will fail to achieve a satisfactory return on shareholders' equity.

A high net profit margin indicates an advantageous selling price policy, declining cost of production or rising demand for the products. A lower profit margin has the opposite implication.

Certain items of income which are derived from the business operation have also been included under the heading of non-operating income. If we deduct non-operating expenses from non-operating income, the result is non-operating surplus. Such items effect the overall profitability of the company. Net profit margin is the result of deduction of operating and non-operating expenses from operating and non-operating incomes. A high net profit margin would ensure reasonable return to the shareholder and express the efficiency of the management in performing their assigned duties toward society. A low profit margin indicates the weakness of the company, inefficiency of the management, unsatisfactory return to shareholders and also indicates the capacity of the company to withstand the adverse conditions which the company may come across such as declining prices, increasing cost and decreasing sales. The net profit ratio is calculated by dividing the net profit by net sales for a given period. It can be expressed as follows :

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

Table 3.18 shows the net profit to net sales ratio for the Arab Pharmaceutical Manufacturing Co. Ltd., it also shows a fluctuating trend from 1975 to 1978, an increasing trend in 1978 and 1979 as against 1977, decreased in 1980 as against 1979, an increasing trend in 1981 and 1982 as against 1980, a decreasing trend in 1983 and 1984 as against 1982 and increased in 1985 as against 1984. The maximum percentage of net profit generated in 1975 was 29.54 per cent and minimum was 14.50 per cent in 1984.

Table : 3.17
Net Profit of the different Companies Studied from 1975 to 1985

(Amount in JDs)

Sr.No.	Name of the Company	Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	571323	438411	516111	716779	851049	635319	868368	1009808	960648	1167864	1571784
2.	Jordan Petroleum Refinery Co.Ltd.	1762831	1795685	1803388	2995753	5102323	5762887	677678	6005924	2900391	3334695	3770113
3.	Jordan Phosphate Mines Co.Ltd.	1154423	1658644	2069075	2215858	3386248	7296942	5486114	3435862	5072311	7546833	10846960
4.	Industrial Commercial and Agricultural Co.Ltd	164943	202331	297662	244487	286011	335150	608066	618466	579309	345356	-(498851)
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	-(32112)	167299	232712	220564	218489	209988	301653	583349
6.	Arab Potash Co.Ltd	-	-	-	-	-	-	-	-	-(1384020)	-(1410534)	-(6525293)
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	-(268416)	-(587930)	-(1236961)	-(193025)	-(470622)	176389	99174	403095
8.	Jordan Cement Factories Co.Ltd.	1445000	524699	642359	1426271	2111410	2162926	2227012	2306973	4553359	6343603	-(687013)

Sources : From the annual reports of the studied companies

Note : Net profit after tax has been taken for consideration.

Table : 3.18

Net Profit to Net Sales Ratio

Sr.No.	Name of the Company	(Percentage)											
		Years											
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Average
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	29.54	22.19	21.03	23.4	25.38	15.32	15.96	16.39	15.71	14.5	15.44	19.53
2.	Jordan Petroleum Refinery Co.Ltd.	17.04	12.5	10.98	14.35	12.27	21.67	23.63	12.28	1.2	1.24	1.42	12.5
3.	Jordan Phosphate Mines Co.Ltd.	5.54	8.01	15.92	10.43	11.92	15.04	9.29	6.03	8.88	9.55	14.52	10
4.	Industrial Commercial and Agricultural Co.Ltd	7.19	6.11	7.96	6.83	7.62	7.84	8.94	8.13	9.39	4.77	(13.67)	6.91
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	(2.75)	6.49	7.93	6.2	6.64	7.69	8.92	17	7.39
6.	Arab Potash Co.Ltd.	-	-	-	-	-	-	-	-	(243.78)	(94.12)	(22.19)	(129.03)
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	(42.59)	(71.73)	(149.95)	(26.06)	(43.41)	9.06	3.23	16.44	(38.12)
8.	Jordan Cement Factories Co.Ltd.	26.84	11.96	11.92	25.55	10.58	9.27	7.1	5.3	11.35	14.43	(1.43)	12.07
	Consolidated total of the eight Companies	12.39	10.32	11.52	13	13.66	13.7	11.79	8.13	9.14	1.17	2.15	-

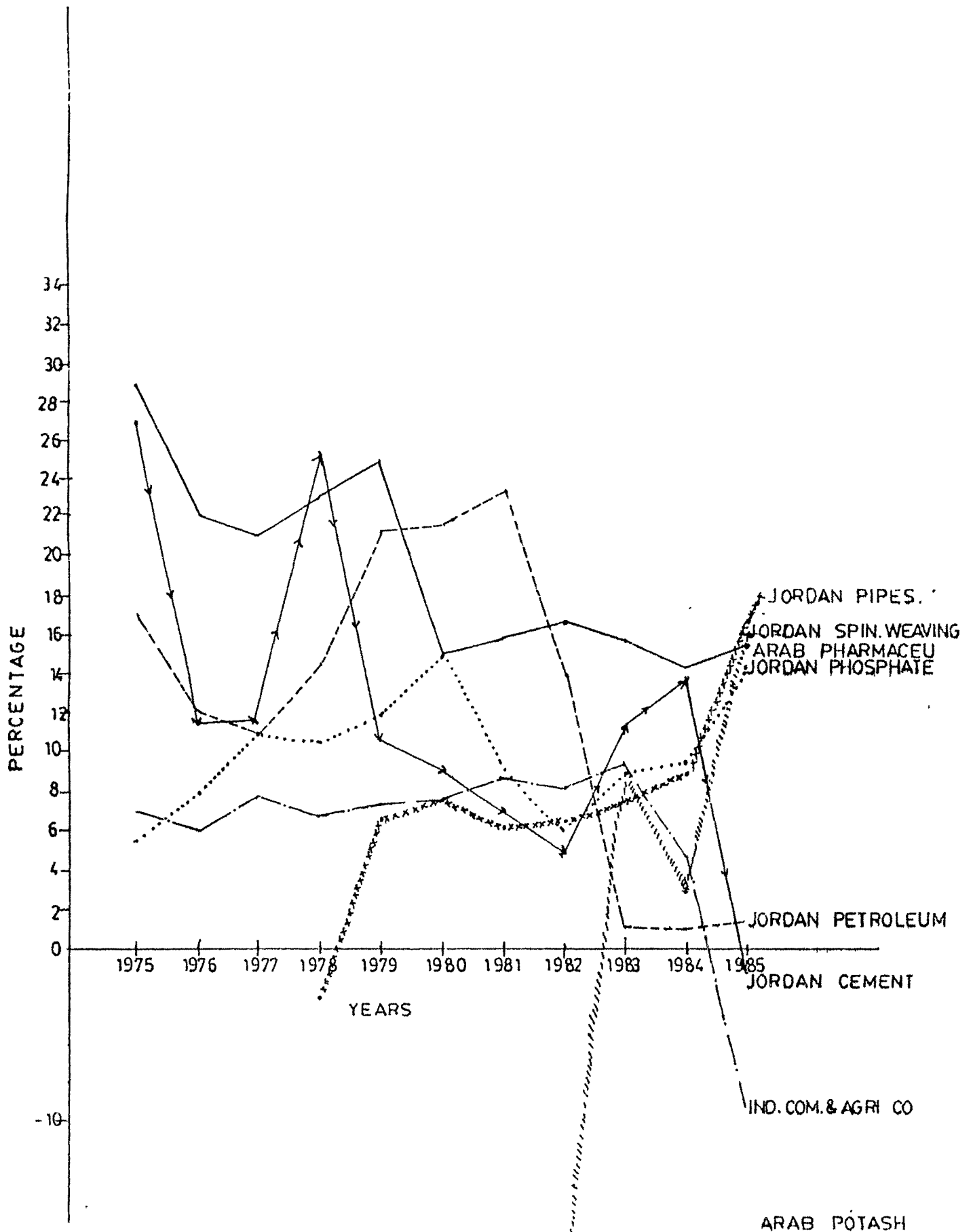
Sources : Computed from table 3.17 and 3.2

Note : Non - Operating surplus/deficit included while calculating Net Profit to Net Sales Ratio

GRAPH 3.3

NET PROFIT AFTER TAXES IN SELECTED
INDUSTRIAL COMPANIES IN JORDAN.

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In the Jordan Petroleum Refinery Co. Ltd., the percentage of net profit shows a decreasing trend in 1976 and 1977 as against 1975, an increasing trend from 1978 to 1981 as against 1977, decreased in 1982 as against 1981. Net profit Margin shows a declining trend from 1983 to 1985 due to an increasing trend in the cost of goods sold and manufacturing expenses. The highest net profit margin generated by the company in 1981 was 23.63 per cent and the lowest was 1.20 per cent in 1983. In the Jordan Phosphate Mines Co. Ltd., the net profit margin shows an increasing trend in 1976 and 1977 as against 1975, slightly decreased in 1978 as against 1977, increased in 1979 and 1980 as against 1978, a declining trend in 1981 and 1982 as compared to 1980 due to an increasing trend in cost of goods sold and manufacturing cost and the net profit shows an increasing trend from 1983 to 1985 as against 1982. In the Industrial Commercial and Agricultural Co. Ltd., the net profit margin shows a fluctuating trend from 1975 to 1979, an increasing trend from 1979 to 1981 as against 1978, a fluctuating trend from 1981 to 1984 and a negative sign in 1985. The net profit margin shows a declining trend in 1984 and 1985 due to increase in cost of goods sold, manufacturing cost and administration cost. In the Jordan Pipes Manufacturing Co. Ltd., the net profit shows a negative sign in 1978 because of the increased cost, an increasing trend in 1979 and 1980, declined in 1981 as against 1980 and shows an increasing trend in the remaining years under study. The highest net profit margin generated by the company in 1985 was 17.00 per cent and the lowest was (-)2.75 per cent in 1978. In the Arab Potash Co. Ltd., the net profit margin shows a negative sign from 1983 to 1985 due

to increase in the cost of goods sold, manufacturing cost, administration and general cost and selling and distribution cost. In the Jordan Spinning and Weaving Co. Ltd., the net profit margin shows a negative sign from 1978 to 1982 because of the increase in the manufacturing and administration costs and the net profit margin shows a fluctuating trend in the rest of the years under study. In the Jordan Cement Factories Co. Ltd., the net profit margin shows a decreasing trend in 1976 and 1977 as against 1975, increased in 1978 as against 1977, a declining trend from 1979 to 1982 as against 1978, increased in 1983 and 1984 as against 1982 and shows a negative sign in 1985 due to increase in the manufacturing cost. The highest net profit to net sales ratio generated by the company in 1975 was 26.84 per cent and the lowest was (-)1.43 per cent in 1985.

On an average, the highest net profit to net sales ratio was generated by the Arab Pharmaceutical Manufacturing Co. Ltd. followed by Jordan Petroleum Refinery Co. Ltd., Jordan Cement Factories Co. Ltd., Jordan Phosphate Mines Co. Ltd., Jordan Cement Factories Co. Ltd., Jordan Phosphate Mines Co. Ltd., Jordan Pipes Manufacturing Co. Ltd., Industrial Commercial and Agricultural Co. Ltd., Jordan Spinning and Weaving Co. Ltd. and lastly by the Arab Potash Co. Ltd.

The consolidated total of net profit margin of the eight companies ranged from 13.70 per cent in 1980 to 0.14 per cent in 1983. It decreased in 1976 as against 1975 and shows an increasing trend from 1977 to 1980 as against 1976, a decreasing trend from 1981 to 1983 as against 1980 and again an increase in 1984 and 1985 as against 1983.

B) ASSETS TURNOVER

The earning of profit follows a two fold sequence and the investment turnover constitutes an essential part of this two tier structure. Therefore, for examining the overall profitability of the company, it is essential to study and analyse the investment turnover alongwith profit margin. This part of the study attempt to analyse the changes in investment turnover and to examine the productivity of the investment made in the assets of the selected large scale industries in Jordan.

Funds of long term and short term sources of finance are obtained from different sources with the sole aim of investment in the assets which are essential to the company.

The word 'investment' has different meanings from the point of view of accountants and economists. However, it may be defined in three ways :

- i) It may indicate the investment in assets where it is determined by methods of capital budgeting.
- ii) It may denote the investment in share capital of the company. This kind of investment depends upon many factors such as degree of risk etc.
- iii) N.K. Kulshrestha defines investment to indicate the capital employed in the company "The term "investment" is synonymous with the concept of "capital employed" The term "capital employed" is used to denote the total investment in a concern" .

5. Kulshrestha N.K., Theory and Practice of Management Accounting, Aligarh, Navman Prakashan, 1985-86, P.328.

For the purposes of this study the word 'investment' refers to total assets or total equities in the company. Some of these techniques used to determine whether the investment are being used efficiently in the selected industrial companies in Jordan ?

Harry and Guthman mention "the assets are all the properties that belong to the business"⁶. According to Monga "assets are the economic resources owned by the business which can be conveniently expressed in monetary terms"⁷.

The term "Turnover" indicates the efficiency in the use of assets. Turnover assets ratios are calculated by comparing the net sales of the company to its different components of assets (i.e. fixed assets, total assets, current assets etc.). These ratios show the number of times the capital has been rotated in the process of doing business. The higher the ratio, the better is the position of the company. Hingorani and Ramanathan write "too high a ratio will indicate overtrading resulting from paucity of resources. This is dangerous as it may lead to a complete break-down. Therefore, the turnover ratio should be treated as standard"⁸. Stephen and Archer state "For manufacturing concerns in general the investment turnover will average one to two times and for public utilities it will be

6. Harry G. Guthman, Analysis of financial Statement, Prentice Hall of India Private Limited, New Delhi, 1976, P.22.

7. Monga J.R., Topics in Financial Accounting, New Delhi, National Publishing House, 1981, P.51.

8. Hingorani N.L. and Ramanathan A.B., Management Accounting, New Delhi, Sultan Chand and Sons, 1982, P.132.

0.25 to 0.33 times a year"⁹ .

Kulshrestha write "Investment decisions for creating fixed and current assets have a very great and far reaching impact on the operational efficiency as well as on the ultimate profitability of a business enterprise. Not only this, decisions pertaining to management of assets are even more vital than decisions pertaining to investment in assets" 10. Lallnigam state "In fact, one of the central tasks of financial management is to control and accelerate the funds' activity and generate higher sales per unit of assets"¹¹ .

The investment turnover analysis indicates which part of assets is efficiently turned over and which part is not, in case there are assets not turning over efficiently, it means there is excess in capital blocking the company.

The techniques of assets turnover are used by the company to test the efficiency of the use of assets. The over and under investment in the assets can be disclosed by measuring the assets being used by the company. Assets turnover is used for the measurement of the efficiency of the capital invested in the company. The larger the assets turnover, the more will be the profit on each dinar invested in the assets of the company.

9. Stephen, Archer and Charles A. Ambrosio, Business Finance Theory and Management, New York, Macmillan, 1972, P.435.

10. Kulshrestha R.S., Profitability in India's Steel Industry, during Decade 1960-70. A thesis submitted to the University of Rajasthan for Ph.D. Degree 1973, P.100.

11. Lallnigam B., Financial Analysis Techniques for Banking Decisions, New Delhi, Somalya Publication Pvt. Ltd. 1979, P.99.

Total Assets Turnover

Total assets mean all the assets side of the balance sheet which include fixed assets, current assets, investment, intangible assets, fictitious assets etc.

The total assets turnover ratio is obtained by dividing the net sales by total assets employed in the company for a given period.

$$\begin{array}{rcl} \text{Total Assets} & & \text{Net Sales} \\ \text{Turnover Ratio} & = & \frac{\text{Total Assets.}}{\text{Total Assets.}} \end{array}$$

Table 3.20 shows that the total assets turnover ratio in the Arab Pharmaceutical Manufacturing Co. Ltd. varied from 0.38 in 1983 to 0.82 in 1975. It shows a fluctuating trend from 1975 to 1978, a decreasing trend in 1978 and 1979 as against 1977, an increase in 1980 as against 1979, a decreasing trend in 1982 and 1983 as against 1981 and an increasing trend in 1984 and 1985 as against 1983. In the Jordan Petroleum Refinery Co. Ltd., the assets turnover ratio shows a decreasing trend from 1975 to 1981, an increasing trend from 1982 to 1984 as against 1981 and decreased in 1985 as against 1984. It varied from 0.25 in 1980 and 1981 to 1.84 in 1984. In the Jordan Phosphate Mines Co. Ltd., the assets turnover ratio shows a decreasing trend from 1975 to 1978, an increase in 1979 and 1980 as against 1978 a decreasing trend from 1981 to 1983 as against 1980, again an increase in 1984 as against 1983 and decreased in 1985 as compared to 1984. It varied from 0.43 in 1978 to 0.82 in 1984. In the Industrial Commercial and Agricultural Co. Ltd., the assets turnover ratio shows a fluctuating trend from 1975 to 1985 and it ranged from 0.63 in 1983 and 1985 to 1.15 in 1978. In the Jordan Pipes Manufacturing

Table : 3.19
Total Asset of the Studied Companies from 1975 to 1985

Sr.No.	Name of the Company	(Amount in JDs)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	2337912	4151736	4882745	5326410	6213626	6418613	8747950	15732784	15924663	19732585	27479226
2.	Jordan Petroleum Refiner / Co.Ltd.	25315951	47674907	57080393	77205794	98094460	1.1E+08	1.1E+08	1.2E+08	1.3E+08	1.4E+09	1.6E+08
3.	Jordan Phosphate Mines Co.Ltd.	26736792	34287798	40682919	48255514	58454814	73072257	89852074	86392162	89528717	96192852	1.1E+08
4.	Industrial Commercial and Agricultural Co.Ltd	2144093	2972335	2650241	3099798	4552096	5749166	9022520	9327354	9485498	9465572	9694923
5.	Jordan Pipes Manufacturing Co.Ltd	1303723	2336641	3707190	3605567	3547630	3608467	3786602	4455475	4391048	3646961	4051425
6.	Arab Potash Co.Ltd	2557179	4639904	6203101	13441765	56420909	1.0E+09	1.3E+08	1.4E+08	1.5E+08	1.4E+09	1.4E+08
7.	Jordan Spinning and Weaving Co.Ltd.	1802578	2261335	3087581	2834275	2840470	2944948	3111566	4978163	4955592	5344559	5122446
8.	Jordan Cement Factories Co.Ltd.	7730724	20403193	24336063	28052357	37288141	44882703	53379911	78771096	94933201	1.1E+08	2.1E+08

Sources : From the annual reports of the studied companies

Table : 3.20

Total Assets Turnover Ratio

Sr.No.	Name of the Company	(Percentage)											
		Years											
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Average
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	0.92	0.47	0.59	0.57	0.53	0.64	0.62	0.39	0.38	0.4	0.45	0.53
2.	Jordan Petroleum Refinery Co.Ltd.	0.4	0.3	0.28	0.27	0.27	0.25	0.25	0.41	1.73	1.84	1.7	0.7
3.	Jordan Phosphate Mines Co.Ltd.	0.79	0.6	0.46	0.43	0.48	0.66	0.65	0.65	0.63	0.82	0.7	0.62
4.	Industrial Commercial and Agricultural Co.Ltd	1.06	1.12	1.02	1.15	0.82	0.85	0.75	0.79	0.63	0.75	0.63	0.86
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	0.22	0.72	0.81	0.93	0.75	0.62	0.72	0.84	0.73
6.	Arab Potash Co.Ltd.	-	-	-	-	-	-	-	-	0.05	0.1	0.2	0.11
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	0.22	0.28	0.28	0.23	0.21	0.39	0.56	0.47	0.33
8.	Jordan Cement Factories Co.Ltd.	0.69	0.21	0.22	0.19	0.53	0.51	0.58	0.55	0.42	0.4	0.22	0.41
	Consolidated total of the eight Companies	0.64	0.4	0.74	0.33	0.41	0.45	0.48	0.5	0.7	0.81	0.66	-

Sources : Computed from table 3.19 and 3.2

Co. Ltd., the assets turnover ratio shows an increasing trend from 1975 to 1981, a decreasing trend in 1982 and 1983 as against 1981, again an increase in 1984 as against 1983 and a decrease in 1985 as against 1984. It ranged from 0.32 in 1978 to 0.93 in 1981. In the Arab Potash Co. Ltd., the assets turnover ratio shows an increasing trend from 1983 to 1985. It ranged from 0.03 in 1983 to 0.20 in 1985. In the Jordan Spinning and Weaving Co. Ltd., the assets turnover ratio increased in 1979 and 1980 as against 1978, a decreasing trend from 1980 to 1982 as against 1979 and a fluctuating trend from 1983 to 1985. It varied from 0.21 in 1982 to 0.56 in 1984. In Jordan Cement Factories Co. Ltd., the assets turnover ratio shows a fluctuating trend from 1975 to 1979, an increasing trend in 1979, 1980 and 1981 as against 1978 and a decreasing trend from 1982 to 1985 as against 1981. It varied from 0.21 in 1976 to 0.69 in 1975.

On an average, the highest assets turnover was generated by the Industrial Commercial and Agricultural Co. Ltd., followed by Jordan Pipes Manufacturing Co. Ltd., Jordan Petroleum Refinery Co. Ltd., Jordan Phosphate Mines Co. Ltd., Arab Pharmaceutical Manufacturing Co. Ltd., Jordan Spinning and Weaving Co. Ltd., Jordan Cement Factories Co. Ltd., and the lowest was by the Arab Potash Co. Ltd.

The consolidated total of the total assets turnover of the eight companies ranged from 0.33 in 1978 to 0.81 in 1984. It shows a fluctuating trend from 1975 to 1979, an increasing trend from 1979 to 1984 as against 1978 and decreased in 1985 against 1984.

From the above analysis of assets turnover, one may conclude that the total assets turnover in all the eight companies is not satisfactory to the standard ratio 1.50 to 2.00 times. It seems the managements of these companies did not operate the companies efficiently and did not share their responsibilities towards the shareholders and the society as a whole.

Operating Assets Turnover

Operating assets include all kinds of assets except intangible assets, fictitious assets, work in progress, fixed assets in transit etc. The sales of the company are directly affected by the operating assets. So, operating assets turnover ratio has been calculated to test the efficiency of the management in exploiting and utilising the operating assets of the companies under study. The ratio is calculated by dividing the total net sales by the operating assets available in the company over a period of time :

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

Table 3.22 reveals the operating assets turnover ratio in the Arab Pharmaceutical Manufacturing Co. Ltd. shows a fluctuating trend from 1975 to 1987, a decreasing trend in 1978 and 1979 as against 1977, an increasing trend in 1980 and 1981 as against 1979 and again shows a fluctuating trend in the remaining years under study. It ranged from 0.38 in 1982 to 0.84 in 1976. In the Jordan Petroleum Refinery Co. Ltd., the operating assets turnover decreased in 1976 as against 1975, increased in 1977 and 1978 as against 1976, again shows a decreasing trend from 1979 to

Table : 3.21

Operating Assets of the studied Companies from 1975 to 1985

(Amount in JDs)

Sr.No.	Name of the Company	Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	2337597	4964966	4799975	5239641	6102436	6157195	7454923	13256966	8808423	19646071	27232027
2.	Jordan Petroleum Refinery Co.Ltd.	14784207	39837109	30399966	34113027	39962376	50334423	94992757	1.2E+08	1.3E+08	1.4E+08	1.5E+08
3.	Jordan Phosphate Mines Co.Ltd.	25017245	21174226	36607228	47728576	52480372	68961628	88913052	85961750	86433781	89366393	37574139
4.	Industrial Commercial and Agricultural Co.Ltd	2144093	2937205	3650241	3999708	4552096	5740146	9022520	9527354	9695498	9465572	5094823
5.	Jordan Pipes Manufacturing Co.Ltd	1231495	2152025	3170632	3122665	3118385	3232877	3464667	4187196	4176425	3646961	4051425
6.	Arab Potash Co.Ltd	2095807	2071112	4689255	11564275	31921020	48230045	34883776	1.2E+08	1.3E+08	1.2E+08	1.3E+08
7.	Jordan Spinning and Weaving Co.Ltd.	1766007	2231596	2796313	2543907	2578329	2601956	2581988	4712716	4730668	5174095	5016061
8.	Jordan Cement Factories Co.Ltd.	6298406	17805821	21935699	25642319	37017788	43016220	52133744	48598446	49612641	1.1E+08	2.1E+08

Sources : From the annual reports of the studied companies

Note : Operating asset and total assets are the same in case of Jordan Pipes Manufacturing for all years and in some years in some other companies.

Table : 3.22

Operating Assets Turnover Ratio

Sr.No.	Name of the Company	(Times)											
		Years											
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Average
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	0.82	0.48	0.61	0.58	0.54	0.67	0.72	0.45	0.69	0.41	0.47	0.53
2.	Jordan Petroleum Refinery Co.Ltd.	0.69	0.46	0.54	0.61	0.6	0.52	0.3	0.41	1.81	1.85	1.71	0.86
3.	Jordan Phosphate Mines Co.Ltd.	0.84	0.97	0.51	0.44	0.54	0.7	0.66	0.66	0.66	0.88	0.76	0.69
4.	Industrial Commercial and Agricultural Co.Ltd	1.06	1.12	1.02	1.15	0.82	0.85	0.75	0.79	0.63	0.76	0.63	0.87
5.	Jordan Pines Manufacturing Co.Ltd	-	-	-	0.37	0.82	0.9	1.02	0.78	0.65	0.92	0.84	0.75
6.	Arab Potash Co.Ltd.	-	-	-	-	-	-	-	-	0.04	0.12	0.22	0.12
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	0.24	0.31	0.31	0.24	0.23	0.41	0.58	0.48	0.35
8.	Jordan Cement Factories Co.Ltd.	0.85	0.24	0.24	0.21	0.53	0.54	0.6	0.89	0.8	0.4	0.22	0.5
	Consolidated total of the eight Companies	0.81	0.58	0.54	0.46	0.56	0.61	0.52	0.57	0.83	0.85	0.69	-

Sources : Computed from table 3.21 and 3.2

1981 as against 1978 and an increasing trend from 1982 to 1984 as against 1981 and a decrease in 1985 as against 1984. It varied from 0.30 in 1981 to 1.85 in 1984. In the Jordan Phosphate Mines Co. Ltd., the operating assets turnover increased in 1976 as against 1975, it shows a decreasing trend in 1977 and 1978 as against 1976 and an increasing trend in 1979 and 1980 as against 1978, remained stable from 1981 to 1983 and again shows a fluctuating trend from 1983 to 1985. It ranged from 0.44 in 1978 to 0.97 in 1976. In the Industrial Commercial and Agricultural Co. Ltd., the operating assets turnover shows a fluctuating trend from 1975 to 1985. It ranged from 0.63 in 1983 and 1985 to 1.15 in 1978. In the Jordan Pipes Manufacturing Co. Ltd., the operating assets turnover shows an increasing trend from 1975 to 1981, a decreasing trend in 1982 and 1983 as against 1981 and a fluctuating trend from 1983 to 1985. It varied from 0.37 in 1978 to 1.02 in 1981. In the Arab Potash Co. Ltd., the operating assets turnover shows an increasing trend from 1984 to 1985. In the Jordan Spinning and Weaving Co. Ltd., the operating assets turnover increased in 1979 and 1980 as against 1978, a decreasing trend in 1981 and 1982 as against 1980 and again an increasing trend in 1983 and 1984 as against 1982 and a decrease in 1985 as against 1984. It ranged from 0.23 in 1982 to 0.58 in 1984. In the Jordan Cement Factories Co. Ltd., the operating assets turnover shows a decreasing trend from 1975 to 1978 as against 1975, an increasing trend from 1979 to 1982 as against 1978 and a decreasing trend in the remaining years under study. It varied from 0.21 in 1978 to 0.89 in 1982.

On an average, the highest operating turnover was created by

the Industrial Commercial and Agricultural Co. Ltd. and followed by the Jordan Petroleum Refinery Co. Ltd., Jordan Pipes Manufacturing Co. Ltd., Jordan Phosphate Mines Co. Ltd., Arab Pharmaceutical Manufacturing Co. Ltd., Jordan Cement Factories Co. Ltd., Jordan Spinning; and Weaving Co. Ltd. and the lowest created was by the Arab Potash Co. Ltd.

The consolidated total of the operating assets turnover of the eight companies ranged from 0.46 in 1978 to 0.85 in 1984. It shows a decreasing trend from 1975 to 1978 as against 1975, an increasing trend in 1979 and 1980 as against 1978, again a decrease in 1981 as against 1980 and an increasing trend from 1982 to 1984 as against 1981 followed by a decrease in 1985 as against 1984.

From the above analysis of the operating assets turnover, we may conclude that the operating assets turnover in the eight industrial companies is not satisfactory.

Fixed Assets Turnover

Fixed assets may be defined as the assets which are not held for sale or for conversion into cash. Fixed assets include land and building, plant and machinery, office equipment, motor vehicles, freehold land and building, property etc. Fixed assets have been taken at written down value i.e. after the deduction of the amount of depreciation. Fixed assets turnover is a measure of the achievement for utilising the investment in fixed assets. A high fixed assets turnover ratio shows that the company is over-trading on its assets while low ratio reveal the excessive investment in fixed assets turnover ratio shows that the company

is over-trading on its assets while low ratio reveal the excessive investment in fixed assets. The higher the ratio, the better is the position and the lower ratio indicate the inefficiency of the management in purchasing the fixed assets. This ratio is obtained by dividing net sales by fixed assets for a given period.

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Fixed Assets}} \times 100$$

Table 3.24 indicates the fixed assets turnover in Arab Pharmaceutical Manufacturing Co. Ltd. and shows a fluctuating trend from 1975 to 1978, a decreasing trend in 1978 and 1979 as against 1978, an increased in 1980 as against 1979, again a decreasing trend in 1981 to 1982 as against 1980 and a fluctuating trend from 1981 to 1985. The maximum fixed assets turnover made by the company was 3.13 in 1975 and the minimum was 0.71 in 1984. In the Jordan Petroleum Refinery Co. Ltd., the fixed assets turnover ratio shows a fluctuating trend from 1975 to 1977, an increasing trend from 1978 to 1980 as against 1977, decreased in 1981 as against 1980 and shows an increasing trend in the remaining years under study, It varied from 0.50 per cent in 1981 to 4.87 in 1985. In the Jordan Phosphate Mines Co. Ltd., the ratio shows a decreasing trend from 1975 to 1979, a fluctuating trend from 1979 to 1982, an increasing trend from 1982 to 1984 as against 1981 and decreased in 1985 as against 1984. It ranged from 1.48 to 3.84 in 1984. In the Industrial Commercial and Agricultural Co. Ltd., the ratio shows a fluctuating trend from 1975 to 1977, a decreasing trend in 1978

Table : 3.23
Fixed Assets of the Different Companies Under Study from 1975 to 1985

(Amount in JDs)

Sr.No.	Name of the Company	Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	616933	113467	1331176	1445164	1667840	1633382	2186075	2152578	2175982	11182748	11081336
2.	Jordan Petroleum Refinery Co.Ltd.	8962511	20978030	19528119	20627441	18274778	19756597	57010053	72338868	87947020	59126825	54556995
3.	Jordan Phosphate Mines Co.Ltd.	6157269	7583202	8429895	10890178	19119937	25956982	33140553	29144110	24683509	2.1E+08	20946591
4.	Industrial Commercial and Agricultural Co.Ltd	852647	837409	1105147	1151154	1373241	1618002	3484085	4499186	4898993	4759714	4845729
5.	Jordan Pipes Manufacturing Co.Ltd	1197379	1625417	2009378	1930161	1841021	1749920	1668602	1605532	1501795	1401169	1250335
6.	Arab Potash Co.Ltd	165703	318430	320488	3801229	3678027	83528928	12057593	1.2E+08	1.2E+08	1.1E+08	1.1E+08
7.	Jordan Spinning and Weaving Co.Ltd.	1607973	2102411	2198471	2109202	1982344	1950621	2195666	2011374	1978354	1337882	1743607
8.	Jordan Cement Factories Co.Ltd.	2524309	7382195	8670095	8147623	6472900	26167007	35807706	68252428	87018048	90536731	1.8E+08

Sources : Collected from the annual reports of the studied companies.

Note : In this table the fixed assets have been taken after deducting the amount of depreciation. Operating Asset and Total Assets are the same in case of Jordan Pipes

Table : 3.24

Fixed Assets Turnover Ratio

(Times)

Sr.No.	Name of the Company	Years											Average
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	3.17	1.74	2.2	2.11	2.01	2.53	2.49	2.86	2.8	0.71	0.91	2.13
2.	Jordan Petroleum Refinery Co.Ltd.	1.15	0.68	0.84	1.01	1.31	1.34	0.5	0.67	3.41	4.52	4.87	1.84
3.	Jordan Phosphate Mines Co.Ltd.	3.44	2.72	2.24	1.98	1.48	1.86	1.78	1.95	2.31	3.84	3.56	2.46
4.	Industrial Commercial and Agricultural Co.Ltd	2.68	3.95	3.38	3.1	2.73	3.03	1.95	1.68	1.25	1.52	1.18	2.4
5.	Jordan Fines Manufacturing Co.Ltd	-	-	-	0.6	1.39	1.67	2.13	2.04	1.81	2.41	2.65	1.83
6.	Arab Potash Co.Ltd.	-	-	-	-	-	-	-	-	0.04	0.13	0.26	0.14
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	0.29	0.41	0.42	0.33	0.53	0.98	1.6	1.4	0.74
8.	Jordan Cement Factories Co.Ltd.	2.13	0.59	0.62	0.68	3.08	0.64	0.97	0.53	0.48	0.48	0.25	0.95
	Consolidated total of the eight Companies	2.15	1.17	1.2	1.21	1.63	1.25	1	0.89	1.15	1.42	1.12	-

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Sources : Computed from table 3.23 and 3.2

and 1979 as against 1977, increased in 1980 as against 1979, a decreasing trend from 1981 to 1983 as against 1980 and shows a fluctuating trend from 1983 to 1985. It ranged from 1.18 in 1985 to 3.95 in 1976. In the Jordan Pipes Manufacturing Co. Ltd., the ratio shows an increasing trend from 1978 to 1981, a decreasing trend in 1982 and 1983 as against 1981 and an increasing trend in 1984 and 1985 as against 1983. It varied from 0.60 in 1978 to 2.65 in 1985. In the Arab Potash Co. Ltd., the ratio shows an increasing trend from 1983 to 1985. In the Jordan Spinning and Weaving Co. Ltd. the ratio shows an increasing trend in 1979 and 1980 as against 1978, a decrease in 1981 as against 1980, an increasing trend 1982 to 1984 as against 1981 and decreased in 1985 as against 1984. It ranged from 0.29 in 1978 to 1.60 in 1984. In the Jordan Cement Factories Co. Ltd. the ratio decreased in 1976 as against 1975 and shows an increasing trend from 1977 to 1979 as against 1976, a fluctuating trend from 1978 to 1982 and a decreasing trend from 1982 to 1985. It varied from 0.25 in 1985 to 3.08 in 1979.

On an average, the highest fixed assets turnover ratio was generated by the Jordan Phosphate Mines Co. Ltd. followed by the Industrial Commercial and Agricultural Co. Ltd., Arab Pharmaceutical Manufacturing Co. Ltd., Jordan Petroleum Refinery Co. Ltd. and Jordan Pipes Manufacturing Co. Ltd., Jordan Cement Factories Co. Ltd., Jordan Spinning and Weaving Co. Ltd. and the lowest was generated by the Arab Potash Co. Ltd.

Regarding the consolidated total of the fixed assets turnover of the eight companies, the ratio shows a fluctuating trend from 1975 to 1977, an increasing trend in 1978 and 1979 as

against 1977, again a decreasing trend from 1980 to 1982 as against 1979 and a fluctuating trend from 1983 to 1985. It ranged from 0.89 in 1982 to 2.15 in 1975.

From the above analysis, it can be concluded that the fixed assets turnover ratio of the eight studied industrial companies is not satisfactory as compared to the ideal ratio of 4 to 5 times.

Current Assets Turnover

Current Assets are the assets which are held by the company for the purposes of conversion into cash e.g. debtors, cash and bank balance, bill receivable, stock, temporary investment etc. The business must have adequate amount of cash available in order to pay the debts promptly. The current assets turnover indicate the turnover of the investment in current assets. This ratio has been calculated by dividing the net sales by current assets for a given period.

$$\text{Current Assets Turnover} = \frac{\text{Net Sales}}{\text{Current Assets}}$$

Table 3.26 indicates the current assets turnover ratio in the Arab Pharmaceutical Manufacturing Co. Ltd. and shows a fluctuating trend from 1975 to 1978, a decreasing trend in 1978 and 1979 as against 1977, an increasing trend in 1980 and 1981 as against 1979, decreased in 1982 as against 1981, an increasing trend in 1982 and 1983 as against 1981 and decreased in 1985 as against 1984. The highest current assets turned over in 1975 was 1.14 and the lowest was 0.56 in 1982. In the Jordan Petroleum Refinery Co. Ltd., the current assets turnover decreased in 1976

Table : 3.25
Current Assets of the Different Studied Companies from 1975 to 1985

Sr.No.	Name of the Company	(Amount in JDs)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	1695546	2904461	3438417	3774632	4402271	4412435	5144483	10967543	5254308	7784855	11472263
2.	Jordan Petroleum Refinery Co.Ltd.	5574039	9832818	9832818	13427092	21652046	30359380	37982764	43403389	60795304	79556306	9.5E+08
3.	Jordan Phosphate Mines Co.Ltd.	18859975	23591023	28177332	3229295955	33360434	40213102	38506470	49778775	45941648	5.3E+08	61074995
4.	Industrial Commercial and Agricultural Co.Ltd	1130895	2099796	2356593	1789609	3019910	3713199	5129490	4619223	4377960	4297913	3840149
5.	Jordan Pipes Manufacturing Co.Ltd	44114	526667	1162054	1192504	1277362	1482957	1796665	2581654	2674620	2245772	2760899
6.	Arab Potash Co.Ltd	688229	798807	616382	3211586	26540608	38652597	15638594	5152133	8413787	12645462	17451630
7.	Jordan Spinning and Weaving Co.Ltd.	158034	129094	597842	433805	595985	651335	786322	2701322	2727014	3261204	3245454
8.	Jordan Cement Factories Co.Ltd.	3617836	11203824	4805399	3206102	6074004	8203327	16299538	10518468	11915153	13748834	25018197

Sources : From the annual reports of the companies under study.

Table : 3.26

Current Assets Turnover Ratio

Sr.No.	Name of the Company	(Times)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985 Average
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	1.14	0.58	0.85	0.81	0.76	0.93	1.05	0.56	0.97	1.03	0.89
2.	Jordan Petroleum Refinery Co.Ltd.	1.85	1.45	1.52	1.55	1.1	0.87	0.75	1.12	3.82	3.35	2.77
3.	Jordan Phosphate Mines Co.Ltd.	1.12	0.87	0.67	0.65	0.85	1.2	1.53	1.39	1.24	1.49	1.22
4.	Industrial Commercial and Agricultural Co.Ltd	2.02	1.57	1.5	1.99	1.24	1.52	1.32	1.64	1.4	1.68	1.49
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	0.97	2.01	1.97	1.98	1.27	1.01	1.5	1.24
6.	Arab Potash Co.Ltd.	-	-	-	-	-	-	-	-	0.67	1.18	1.68
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	1.45	1.37	1.26	0.94	0.4	0.71	0.93	0.73
8.	Jordan Cement Factories Co.Ltd.	1.48	0.39	1.12	1.74	3.28	2.84	1.92	4.13	3.36	3.19	1.91
	Consolidated total of the eight Companies	1.33	0.9	0.95	0.99	1.17	1.24	1.28	1.39	2.46	2.42	1.75 -

Sources : Computed from table 3.25 and 3.2

against 1975 and shows an increasing trend in 1977 and 1978 as against 1976, a decreasing trend from 1979 to 1981 as against 1978, an increasing trend in 1982 and 1983 as against 1981 and a decreasing trend in 1984 and 1985 as against 1983. It ranged from 0.75 in 1981 to 3.82 in 1983. In the Jordan Phosphate Mines Co., the current assets turnover shows a decreasing trend from 1975 to 1978, an increasing trend from 1979 to 1981 as against 1978, a decreasing trend in 1982 and 1983 as against 1981 and a fluctuating trend from 1983 to 1985. It varied from 0.65 in 1978 to 1.63 in 1981. In the Industrial Commercial and Agricultural Co. Ltd., the current assets turnover decreased in 1975 as against 1975, an increasing trend in 1977 and 1978 as against 1976, decreased in 1979 as against 1978, an increasing trend from 1980 to 1982 as against 1979 and shows a fluctuating trend in the remaining years under study. It ranged from 1.24 in 1979 to 2.02 in 1975. In the Jordan Pipes Manufacturing Co. Ltd., the ratio shows a fluctuating trend from 1978 to 1982, a decreasing trend in 1982 and 1983 as against 1981 and again a fluctuating trend from 1983 to 1985. It ranged from 0.97 in 1978 to 2.01 in 1979. In the Arab Potash Co. Ltd., the ratio shows an increasing trend from 1983 to 1985. In the Jordan Spinning and Weaving Co. Ltd. the ratio shows a decreasing trend from 1978 to 1982 and a fluctuating trend in the rest of the years under study. It ranged from 0.40 in 1982 to 1.45 in 1978. In the Jordan Cement factories Co. Ltd., the ratio decreased in 1976 as against 1975, shows an increasing trend from 1977 to 1979 as against 1976, a decreasing trend in 1980 and 1981 as against 1979, again an increase in 1982 as against 1981 and a decreasing trend from 1983 to 1985 as

against 1982.

On an average, the highest current assets turnover was made by the Jordan Cement Co. Ltd. followed by Jordan Petroleum Refinery Co. Ltd., Industrial Commercial and Agricultural Co. Ltd., Jordan Pipes Manufacturing Co. Ltd., Arab Potash Co. Ltd., Jordan Phosphate Mines Co. Ltd., Jordan Spinning and Weaving Co. Ltd. and the lowest was by Arab Pharmaceutical Manufacturing Co. Limited.

The consolidated total of the current assets turnover of the eight companies ranged from 0.90 in 1976 to 2.45 in 1983. It decreased in 1976 as against 1975, and shows an increasing trend from 1977 to 1983 as against 1976 and again a decreasing trend in 1984 and 1985 as against 1983.

Net Working Capital Turnover

Net working capital is the excess of the current assets over current liabilities. If the current assets are larger than the current liabilities, the difference would be called "working capital surplus". On the other hand, if the current liabilities are larger than current assets, the difference would be called "Working Capital Deficit". If the working capital in the company is not sufficient, a time comes when the management has to borrow more source for the company. If the creditors or any other grantor of short term credit examines the balance sheet of the company and finds deficit in the working capital, the working capital will be the centre of attention. M.C. Gupta says "The working capital of the company is the life-blood which flows through the

veins and arteries of the structure. It engages every part of the structure, gives courage, and morale to brain (management) and muscles(personal) digests to the best degree the raw materials used by its constant and regular. flow and return to the heart (cash flow) for another journey and so when working capital is lacking or slows down, the financial body dies and has value only as junk"¹².

Net working capital turnover has been calculated by dividing the total of the net sales by the total of net working capital for a given period.

$$\begin{array}{lcl} \text{Net working capital} & & \text{Net Sales} \\ & = & \text{-----} \\ \text{Turnover Ratio} & & \text{Net Working Capital} \end{array}$$

Table 3.28 shows the net working capital turnover in the Arab Pharmaceutical Manufacturing Co. Ltd. and also shows a decreasing trend in 1976 and 1977 as against 1975, an increasing trend from 1978 to 1981 as against 1977, decreased in 1982 as against 1981. an increasing trend in 1983 and 1984 as against 1982 and again a decrease in 1985 as against 1984. It ranged from 0.39 in 1981 to 4.01 in 1984. In the Jordan Petroleum Refinery Co. Ltd., the ratio shows a negative sign in 1975, 1981 and 1982. It shows a fluctuating trend from 1976 to 1980 and a decreasing trend in 1984 and 1985 as against 1983. It varied from (-)3.54 in 1981 to 32.89 in 1980. In the Jordan Phosphate Mines Co. Ltd., the ratio shows a decreasing trend from 1975 to 1978, an

12. Gupta M.C., 'Operational Efficiency of Rajasthan State Warehousing Corporation' M. Phil dissertation, University of Rajasthan, Jaipur, 1986, P.108.

Table : 3.27
Net Working of the different Studied Companies from 1975 to 1985.

Sr.No.	Name of the Company	(Amount in JDs)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	1308277	1653196	2629547	2457348	2647286	2654263	1385946	6923646	2707462	2045598	3109259
2.	Jordan Petroleum Refinery Co.Ltd.	-(8170755)	3772491	5525325	2825939	11027162	806156	-(3079614)	-(2027544)	16973264	24500183	27591830
3.	Jordan Phosphate Mines Co.Ltd.	7920891	8305174	11117134	15205680	12522642	8868809	10355033	16646732	30600995	32118127	32349500
4.	Industrial Commercial and Agricultural Co.Ltd	573380	835596	511175	744960	2206984	1982273	689601	-(95215)	113967	-(215630)	94750
5.	Jordan Pines Manufacturing Co.Ltd	-(490399)	-(147462)	-(484884)	-(161885)	-(97921)	59911	912367	1048406	1230820	1569848	1743267
6.	Arab Potash Co.Ltd	883532	776141	536067	2635547	23276432	31374660	4023016	-(5772629)	-(1628629)	-(1436682)	-(2594018)
7.	Jordan Spinning and Weaving Co.Ltd.	19400	-(476052)	-(100912)	-(636700)	-(1089812)	-(1332153)	-(926548)	-(2224947)	2417431	2725085	2519981
8.	Jordan Cement Factories Co.Ltd.	1117676	6810385	141299	-(2657302)	-(5719553)	265793	7627635	-(874793)	-(7599955)	-(6081613)	-(2719396)

Sources : From the annual reports of the studied companies

Table : 3.28

Net Working Capital Turnover Ratio

(Times)

Sr.No.	Name of the Company	Years											Average
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	1.47	1.18	1.11	1.24	1.26	1.56	3.92	0.83	2.25	4.91	5.23	2.01
2.	Jordan Petroleum Refinery Co.Ltd.	-(1.26)	3.8	2.97	5.45	2.17	32.89	-(3.54)	-(2.41)	12.24	10.9	9.8	5.61
3.	Jordan Phosphate Mines Co.Ltd.	2.77	2.49	1.7	1.59	2.26	5.46	5.7	3.41	1.96	2.45	2.3	2.59
4.	Industrial Commercial and Agricultural Co.Ltd	3.99	3.96	7.31	4.67	1.7	2.47	9.86	-(79.81)	54.13	-(33.55)	60.71	3.22
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	-(7.19)	-(26.55)	43.96	3.89	3.13	2.21	2.15	1.56	3.57
6.	Arab Potash Co.Ltd.	-	-	-	-	-	-	-	-	-(0.34)	-(1.04)	-(3.42)	-(1.50)
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	-(0.98)	-(0.75)	-(0.61)	-(0.79)	0.48	0.8	1.11	0.97	0.02
8.	Jordan Cement Factories Co.Ltd.	4.81	0.49	38.1	-(2.09)	-(3.48)	87.76	4.11	-(49.72)	-(5.27)	-(7.22)	-(1.75)	5.97
	Consolidated total of the eight Companies	16.79	1.91	2.36	2.98	3.85	8.75	11.33	28.83	10.94	10.1	13.88	-

Sources : Computed from table 3.27 and 3.2

increasing trend from 1979 to 1981 as against 1978, a decreasing trend in 1982 and 1983 as against 1981 and shows a fluctuating trend from 1983 to 1985. It ranged from 1.39 in 1978 to 5.70 in 1981, In the Industrial Commercial and Agricultural Co. Ltd., the ratio shows a fluctuating trend from 1975 to 1978, a decrease in 1979 as against 1978, an increasing trend in 1980 and 1981 as against 1979 and it shows a negative sign in 1982 and 1984. In the ;Jordan Pipes Manufacturing Co. Ltd., the ratio shows a negative sign in 1978 and 1979 and shows a decreasing trend from 1981 to 1985 as against 1980. It varied from (-)26.55 in 1979 to 48.96 in 1980. In the Arab Potash Co. Ltd., the ratio shows a negative sign from 1983 to 1985. In the Jordan Spinning and Weaving Co. Ltd., the ratio shows a negative sign from 1978 to 1981, an increasing trend from 1982 to 1984 as against 1981 and a decrease in 1985 as against 1984. In the Jordan Cement Factories Co. Ltd., the ratio shows a fluctuating trend from 1975 to 1977 a negative sign in 1978 and 1979 and again a negative sign from 1982 to 1985.

On an average, the highest Net Current Assets ratio was generated by the Jordan Petroleum Co. Ltd., followed by Jordan Cement Factories Co. Ltd., Jordan Pipes Manufacturing Co. Ltd., Industrial Commercial and Agricultural Co. Ltd., Jordan Phosphate Mines Co. Ltd., arab Pharmaceutical Manufacturing Co. Ltd., Jordan Spinning and Weaving Co. Ltd., and the lowest was by the Arab Potash Co. Ltd.

The consolidated total of the net current assets turnover of the eight companies ranged from 1.91 in 1976 to 28.83 in 1982. It

decreased in 1976 as against 1975, an increasing trend from 1977 to 1982 as against 1976, again a decreasing trend in 1983 and 1984 as against 1982 and an increase in 1985 as against 1984.

Receivables Turnover or Debtors Turnover

The receivable turnover is calculated by dividing the amount of sales by the amount of receivables or debtors plus bills receivable. The receivable turnover can be increased by making collection within a short period. The higher receivable turnover indicates higher profitability.

It is expressed as follows :

$$\text{Receivable Turnover Ratio} = \frac{\text{Sales}}{\text{Debtors + Bills receivables}}$$

I.M. Pandey indicates that the ratio indicates the number of times, on an average, the debtors turnover each year. Generally, the higher the value of the debtors turnover, the more efficient is the management of assets¹³. The receivable turnover ratio may

be low because of over extension of credit, ineffective credit investigation and lack of effective collection policy etc. If the receivable turnover ratio is low, it may reflect the following :

- 1) an increase in the amount of receivable and decrease in the volume of sales.
- 2) a decrease in receivables and a proportionately greater decline in sales volume.
- 3) an increase in the sales and a proportionately higher increase in receivables.

13. Ibid, 1979, P.514.

-
- 4) receivables remains the same with a decrease in sales volume
 - 5) an increase in the receivable with no change in the sales volume.

Since the break down of total sales into cash and credit sales is not available in the annual reports of the selected industrial companies in Jordan, the balance of net sales volume have been assumed to be credit sales.

The receivable turnover ratio of the selected industrial companies in Jordan for the period of eleven years covered by this study has been shown in table 3.30.

Table 3.30 reveals that the debtors turnover ratio in the Arab Pharmaceutical Manufacturing Co. Ltd. and shows a decreasing trend in 1976 and 1977 as against 1975, an increasing trend in 1978 and 1979 as against 1977, a fluctuating trend from 1979 to 1982, a decreasing trend in 1982 and 1983 as against 1981 and fluctuating trend from 1983 to 1985. In the Jordan Petroleum Refinery Co. Ltd. it shows a fluctuating trend from 1975 to 1978, a decreasing trend in 1979 and 1980 as against 1978, again a fluctuating trend from 1980 to 1984 and a decreasing trend in 1984 and 1985 as against 1983. In the Jordan Phosphate Mines Co. Ltd. it shows a fluctuating trend from 1975 to 1977, a decreasing trend in 1977 and 1978 as against 1976, an increasing trend in 1979 and 1980 as against 1978, a decreasing trend in 1981 and 1982 as against 1980, an increase in 1983 and shows a decreasing trend in 1984 and 1985 as against 1983. In the Industrial Commercial and Agricultural Co. Ltd. it shows 20.77 times in 1975 and 30.20 times in 1976, a decreasing trend from 1977 to 1979 as

Table : 3.29
Receivable of the Selected Industrial Companies Under Study in Jordan.

Sr.No.	Name of the Company	(Amount in JDs)										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	796682	1074772	2035374	1662226	1596469	2298992	2786335	3501937	36170716	4623986	7724842
2.	Jordan Petroleum Refinery Co.Ltd.	1411527	3476419	3049927	4095924	4972587	10903190	10908190	27409071	23044711	30173422	42581674
3.	Jordan Phosphate Mines Co.Ltd.	7125642	6776016	8391866	10997457	13507754	16518804	23594640	24909206	14396937	21283482	35655375
4.	Industrial Commercial and Agricultural Co.Ltd	110372	109572	301260	490956	842441	1053202	694547	1151009	1292760	1371735	1460430
5.	Jordan Pipes Manufacturing Co.Ltd	8569	49928	17006	110396	124453	216258	355286	452448	516994	545557	756057
6.	Arab Potash Co.Ltd	-	-	-	-	-	-	-	-	1067740	1415233	3530449
7.	Jordan Spinning and Weaving Co.Ltd.	21140	11094	140036	79585	82312	78688	87728	34363	96872	286547	200067
8.	Jordan Cement Factories Co.Ltd.	153478	158745	913913	1016261	712974	394724	612334	448832	525025	531453	3412076

Sources : From the annual reports of the Selected Industrial companies in Jordan.

Table : 3.30

Receivable Turnover Ratio

Sr.No.	Name of the Company	(Times)											
		Years											
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Average
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	2.42	1.93	1.43	1.84	2.1	1.8	1.95	1.75	1.69	1.73	1.73	1.8
2.	Jordan Petroleum Refinery Co.Ltd.	7.22	4.13	5.28	5.09	4.92	2.45	2.62	1.78	10.07	8.95	6.22	5.34
3.	Jordan Phosphate Mines Co.Ltd.	2.97	3.05	2.25	1.92	2.1	2.93	2.5	2.28	3.96	3.71	2.09	2.42
4.	Industrial Commercial and Agricultural Co.Ltd	20.77	30.2	12.4	7.28	4.45	4.66	9.79	6.54	4.77	5.19	3.93	9.99
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	10.55	20.7	13.56	10	7.25	5.27	6.19	4.53	7.75
6.	Arab Potash Co.Ltd.	-	-	-	-	-	-	-	-	9.53	10.6	9.32	6.48
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	7.91	9.95	10.49	8.44	31.54	20.08	10.59	12.25	13.5
8.	Jordan Cement Factories Co.Ltd.	35.06	27.61	5.99	5.49	27.97	59.1	51.2	96.91	76.35	82.68	14	45.64
	Consolidated total of the eight Companies	4.29	3.85	3.22	3.04	3.8	3.53	3.34	2.89	7.9	7.08	4.6	-

Sources : Computed from table 3.29 and 3.2

against 1976, an increasing trend in 1980 and 1981 as against 1979, a decreasing trend in 1982 and 1983 as against 1981 and shows a fluctuating trend from 1983 to 1985. It ranged from 3.93 times in 1985 to 30.20 times in 1976. In the Jordan pipes Manufacturing Co. Ltd. the ratio shows an increase to 20.70 times in 1979 as against 10.55 times in 1978, a decreasing trend from 1980 to 1983 as against 1979 and shows a fluctuating trend from 1983 to 1985. It ranged from 0.53 times in 1983 to 10.60 times in 1984. The Jordan Spinning and Weaving Co. Ltd. shows an increasing trend in 1979 and 1980 as against 1978, a fluctuating trend from 1979 to 1983, a decreasing trend in 1983 and 1984 as against 1982 and increased in 1985 as against 1984. It ranged from 7.91 times in 1978 to 31.54 times in 1982. The Jordan Cement Factories Co. Ltd. shows a decreasing trend till 1978 as against 1975, an increasing trend in 1979 and 1980 as against 1978, declined in 1981 as against 1980, an increasing trend from 1983 to 1984 as against 1982 and a decline in 1985 as against 1984. It ranged from 5.49 times in 1978 to 96.91 times in 1982.

On an average, the highest receivable turnover ratio is seen in the Jordan Cement Factories Co. Ltd. as 45.64 times, followed by Jordan Spinning and Weaving Co. Ltd. as 13.50 times, the industrial commercial and agricultural Co. Ltd. as 9.75 times, Arab potash Co. Ltd. as 6.48 times, Jordan Petroleum Refinery Co. Ltd. as 5.34 times, Jordan Phosphate Mines Co. Ltd. as 2.42 and lastly by the Arab pharmaceutical Manufacturing Co. Ltd. as 1.80 times.

Regarding the consolidated total of the receivable turnover ratio of the eight companies shows a decreasing trend from 1976 to

1978 as against 1975, increased in 1979 as against 1978, a decreasing trend from 1980 to 1982 as against 1979, increased in 1983 as against 1982 and shows a decreasing trend in 1984 and 1985 as against 1983. It ranged from 2.89 times in 1982 to 7.90 times in 1983.

Average Collection Period

Average collection period means the average number of days for which the company must wait after making sales before collecting cash from the customers. It shows the quality of customers and the rapidity of collections. The shorter the average collection period, the better is the quality of debtors and short term collection of cash from customers and vice-versa. A long average collection period indicates the inefficient credit collection policy and an increase in the bad debt losses of the company.

The average collection period is calculated by dividing the days in the year by the receivables turnover. It may be expressed thus :

$$\text{Average Collection Period} = \frac{\text{Days in a year or 365}}{\text{Receivables Turnover Ratio}}$$

Table 3.31 shows the average collection period in the selected industrial companies in Jordan for the period of eleven years covered by this study.

On the basis of the table 3.31 it can be stated that the average collection period in the Arab Pharmaceutical Manufacturing Co. Ltd. shows an increasing trend in 1976 and 1977 as against 1975, a decreasing trend in 1978 and 1979 as against

Table : 3.30

Average Collection Period in the Selected Industrial Companies in Jordan

(Days)

Sr.No.	Name of the Company	Years											Average
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	150	199	255	198	175	202	187	208	217	210	278	207
2.	Jordan Petroleum Refinery Co.Ltd.	49	88	67	71	74	150	179	235	36	41	58	91
3.	Jordan Phosphate Mines Co.Ltd.	122	119	162	190	173	154	146	160	92	98	174	144
4.	Industrial Commercial and Agricultural Co.Ltd	17	12	29	50	82	78	37	55	75	80	92	54
5.	Jordan Pipes Manufacturing Co.Ltd	-	-	-	54	17	25	56	50	69	58	90	46
6.	Arab Potash Co.Ltd.	-	-	-	-	-	-	-	-	688	34	43	765
7.	Jordan Spinning and Weaving Co.Ltd.	-	-	-	46	36	34	43	11	18	34	29	31
8.	Jordan Cement Factories Co.Ltd.	10	13	61	66	13	6	7	3	4	4	26	-

Sources : Computed from table 3.30.

1977, a fluctuating trend from 1979 to 1982, on increasing trend in 1982 and 1983 as against 1981 and a fluctuating trend from 1982 to 1985. It ranged from 150 days in 1975 to 278 days in 1985. The Jordan Petroleum Refinery Co. Ltd. shows a fluctuating trend from 1975 to 1978, an increasing trend from 1978 to 1982 as against 1977, a decrease in 1983 to 36 days and 1985 as against 1983. It ranged from 36 days in 1983 to 233 days in 1982. The Jordan Phosphate Mines Co. Ltd. shows a fluctuating trend from 1975 to 1977, an increasing trend in 1977 and 1978 as against 1976, a decreasing trend from 1979 to 1981 as against 1978, a fluctuating trend from 1981 to 1984 and an increasing trend in 1984 and 1985 as against 1983. It ranged from 92 days in 1983 to 190 days in 1978. The Industrial Commercial and Agricultural Co. Ltd. shows an increasing trend from 1977 to 1979 as against 1976, a decreasing trend in 1980 and 1981 as against 1979, an increasing trend in 1982 and 1983 as against 1981 and a fluctuating trend from 1982 to 1985. It ranged from 12 days in 1976 to 92 days in 1985. The Jordan Pipes Manufacturing Co. Ltd. shows a fluctuating trend from 1978 to 1980, an increasing trend from 1980 to 1983 as against 1979 and a fluctuating trend from 1982 to 1985. It ranged from 17 days in 1979 to 80 days in 1985. The Arab Potash Co. Ltd. shows a fluctuating trend from 1983 to 1985. It ranged from 34 days in 1984 to 688 days in 1983. The Jordan Spinning and Weaving Co. Ltd. shows a decreasing trend in 1979 and 1980 as against 1978, a fluctuating trend from 1979 to 1983, an increasing trend in 1983 and 1984 as against 1982 and declined in 1985 to 29 days as against 34 days in 1984. It ranged

from 11 days in 1982 to 46 days in 1978. The Jordan Cement factories Co. Ltd. shows an increasing trend from 1976 to 1978 as against 1975, a decreasing trend in 1979 and 1980 as against 1978, a fluctuating trend 1979 to 1984, remained the same as 4 days in 1983 and 1984 and increased 26 days in 1985 as against 1984. It ranged from 3 days in 1982 to 66 days in 1978.

On an average, the highest collection period is by Arab Potash Co. Ltd. as 765 days, followed by the Arab Pharmaceutical Manufacturing Co. Ltd. as 207 days, Jordan Phosphate Mines Co. Ltd. as 144 days, Jordan Petroleum Refinery Co. Ltd. as 91 days, Industrial Commercial and Agricultural Co. Ltd. as 54 days, Jordan Pipes Manufacturing Co. Ltd. as 46 days, Jordan Spinning and Weaving Co. Ltd. as 21 days and the lowest average collection period is by the Jordan Cement Factories Co. Ltd. as 19 days.

Cash Turnover

The management of cash is the most important function in the company. Cash and bank balance are the most liquid assets which can be used for discharging urgent liabilities. Cash is procured by a company from the shareholders and from lenders at cost. Therefore, the management of the company needs to know how to invest the surplus cash which is not needed. On the other hand, if the company does not keep sufficient amount of cash to meet its obligations when they are required, the company may have to face a danger of technical insolvency. In every company, a certain amount of cash at minimum level is required to be kept depending on the nature and size of the company and on many internal and external factors. The management of the company

should prepare a cash budget to forecast the cash requirement at a given period.

While preparing cash budget, the management must be careful of holding excessive cash balance. If cash balances are more than what is required, it involves an additional expense which finally reduces the return on total assets. An excessive cash balance should be invested in marketable securities. The forecasting and planning for cash budget by the management should take care of the liquidity as well as the profitability objectives together in the company.

For the purposes of this study, we will analyse and examine the position of cash and bank balances in relation to the current liabilities. This ratio is determined by dividing the cash and bank balances by short-term obligations falling due for payment within a period of one year. It can be expressed as follows :

$$\begin{array}{lcl} \text{Cash to Current} & & \text{Cash + Bank Balance} \\ \text{Liabilities Ratio} & = & \frac{\text{Current liabilities}}{\text{Current liabilities}} \times 100 \end{array}$$

The ratio of cash and bank balances to current liabilities in the selected industrial companies in Jordan has been shown in table 3.34.

Table 3.34 reveals that in the Arab Pharmaceutical Manufacturing Co. Ltd., the ratio shows a wide fluctuating trend from 1975 to 1979, a decreasing trend from 1979 to 1981 as against 1978, raised to 124.70 percent in 1982 as against 0.47 percent in 1981, declined to 0.70 percent in 1982 and shows an increasing trend in 1984 and 1985 as against 1983. It ranged from 0.47 percent in 1981 to 124.70 percent in 1982. The ratio in the Jordan Petroleum Refinery Co. Ltd. shows a fluctuating trend from

Table : 3.32
Cash of the Selected Industrial Companies Under Study in Jordan.

Sr.No.	Name of the Company	(Amount in JDs)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	10167	787467	177521	1050340	1168558	104882	17937	5043105	24942	127607	191362
2.	Jordan Petroleum Refinery Co.Ltd.	162479	352657	257694	1097124	6875093	8577758	4526094	3774807	3313135	8540273	6663389
3.	Jordan Phosphate Mines Co.Ltd.	926634	1511912	1434853	1378852	273964	2616318	900618	66923	9466498	14246499	3131644
4.	Industrial Commercial and Agricultural Co.Ltd	11811	21863	38366	31492	431477	79816	215184	260930	237970	156703	77712
5.	Jordan Pipes Manufacturing Co.Ltd	131	1455	1394	110967	3312	34946	3752	6035	1457	11755	3195
6.	Arab Potash Co.Ltd	962262	761500	558439	2528490	23012759	26359462	12939384	20672	72740	2155276	5703789
7.	Jordan Spinning and Weaving Co.Ltd.	97149	8376	520	7527	2723	5938	115719	2168886	2260483	2649368	2525240
8.	Jordan Cement Factories Co.Ltd.	1938482	5809068	1154549	41299	537482	163451	141673	274900	370008	292562	421916

Sources : From the annual reports of the Selected Industrial companies in Jordan.

Table : 3.32
Current Liabilities of the Selected Industrial Companies Under Study in Jordan.

Sr.No.	Name of the Company	(Amount in JDs)										
		Years										
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	387269	1241265	898870	1311294	1758985	1758173	3758537	4043897	3548946	5779257	3572013
2.	Jordan Petroleum Refinery Co.Ltd.	13744794	6060327	5208739	9598254	20604884	29551224	45062318	65678557	41821740	55556123	67722445
3.	Jordan Phosphate Mines Co.Ltd.	11239084	15295849	17064198	17090075	30837792	31344299	28151437	24132945	15340755	20682995	28734405
4.	Industrial Commercial and Agricultural Co.Ltd	557515	1264200	1845418	1024649	812926	1730826	4439889	4714438	4262993	4513543	3745379
5.	Jordan Pipes Manufacturing Co.Ltd	534513	670129	1646938	670127	534513	1423046	983702	1533258	1442810	675944	1017327
6.	Arab Potash Co.Ltd	4577	2666	50315	576039	3264175	7277937	11615578	10974761	24700672	27012291	26045648
7.	Jordan Spinning and Weaving Co.Ltd.	138634	605153	698734	1080505	1684797	1983488	1712870	476375	309583	536119	725473
8.	Jordan Cement Factories Co.Ltd.	2500160	2393439	4664100	5863404	11793557	7937554	8671903	11393261	8791468	19830447	52212162

Sources : From the annual reports of the Selected Companies Under Study.

Table : 3.34

Cash and Bank Balance to Current liabilities Ratio

Sr.No.	Name of the Company	(Percentage)											Average
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	
1.	Arab Pharmaceutical Manufacturing Co.Ltd.	2.62	63.44	21.94	89.1	66.43	5.96	0.47	124.7	9.7	2.13	2.28	53.7
2.	Jordan Petroleum Refinery Co.Ltd.	1.18	5.81	5.52	11.45	33.37	29.02	9.82	5.92	5.54	15.51	9.83	12.08
3.	Jordan Phosphate Mines Co.Ltd.	8.24	9.99	8.41	8.06	0.89	8.34	5.19	9.27	61.7	58.84	10.89	17.15
4.	Industrial Commercial and Agricultural Co.Ltd	2.11	1.72	2.07	3.07	53.07	4.61	4.84	5.53	5.58	3.47	2.12	8.01
5.	Jordan Pipes Manufacturing Co.Ltd	0.02	0.21	0.08	0.19	0.24	2.45	0.42	0.39	0.1	1.73	1.71	0.55
6.	Arab Potash Co.Ltd.	18839.02	28578.39	109.98	438.94	705	362.18	110.53	0.18	9.29	7.97	21.89	4561.3
7.	Jordan Spinning and Weaving Co.Ltd.	70.07	1.38	0.07	0.7	9.16	0.29	6.75	458.85	730.17	492.49	348.08	191.72
8.	Jordan Cement Factories Co.Ltd.	77.53	242.7	24.75	0.7	4.55	2.08	1.63	2.41	4.2	1.42	0.9	32.97
	Consolidated total of the eight Companies	13.77	33.62	12.02	16.49	45.24	45.71	17.81	9.62	14.72	20.99	9.92	

Sources : Computed from table 3.32 and table 3.33.

1975 to 1978, an increasing trend in 1978 and 1979 as against 1977, a declining trend from 1980 to 1983 as against 1979 and a fluctuating trend from 1983 to 1985. It ranged from 1.18 percent in 1975 to 33.37 percent in 1979. The Jordan Phosphate Mines Co. Ltd. shows an increase of 9.89 percent in 1976 as against 8.24 percent in 1975, a decreasing trend from 1977 to 1979 as against 1976, raised to 8.34 percent in 1980 as against 0.88 percent in 1977, a declining trend in 1981 and 1982 as against 1980, a wide increasing trend in 1983 and 1984 as 61.70 per cent and 68.84 percent respectively as against 0.27 percent in 1982 and declined to 10.89 percent in 1985. It ranged from 0.27 percent in 1982 to 68.84 percent in 1984. The Industrial Commercial and Agricultural Co. Ltd. shows a decline of 1.72 percent in 1976 as against 2.11 percent in 1975, an increasing trend from 1977 to 1979 as against 1976, decreased in 1980 to 4.61 percent as against 53.07 percent in 1979, an increasing trend from 1981 to 1983 as against 1980 and a decreasing trend in 1984 and 1985 as against 1983. It ranged from 1.72 percent in 1976 to 53.07 percent in 1979. The Jordan Pipes Manufacturing Co. Ltd. shows a fluctuating trend from 1975 to 1978, an increasing trend from 1978 to 1980 as against 1977, a declining trend from 1981 to 1983 as against 1980 and a fluctuating trend from 1983 to 1985. It ranged from 0.02 percent in 1975 to 2.45 percent in 1980. The Arab Potash Co. Ltd. shows a very high ratio from 1975 to 1981, a wide declining trend in 1982 and 1983 as 0.18 and 0.29 percent respectively as against 110.53 percent in 1981 and an increasing trend in 1984 and 1985 as against 1983. It ranged from 0.18 percent in 1983 to 28578.39

percent in 1976. The Jordan Spinning and Weaving Co. Ltd. shows a declining trend in 1976 and 1977 as against 1976, a fluctuating trend from 1977 to 1980, a wide increasing trend from 1981 to 1983 as against 1980 and a declining trend in 1984 and 1985 as against 1983. It ranged from 0.07 percent in 1977 to 730.17 percent in 1983. The Jordan Cement Factories Co. Ltd. shows a fluctuating trend from 1975 to 1977, a decline of 0.70 percent in 1978 as against 24.75 percent in 1977, a fluctuating trend from 1977 to 1980, a declining trend in 1980 and 1981 as against 1979, an increasing trend in 1982 and 1983 as against 1981 and again a declining trend in 1984 and 1985 as against 1983. It ranged from 0.70 percent in 1978 to 242.70 percent in 1976.

On an average, the highest cash and bank balance to current liabilities ratio is evident in the Arab Potash Co. Ltd. as 4561.30 percent followed by Jordan Spinning and Weaving Co. Ltd. as 191.72 percent, Arab pharmaceutical Manufacturing Co. Ltd. as 33.70, Jordan Cement Factories Co. Ltd. as 32.97 percent, Jordan Phosphate Mines Co. Ltd. as 17.15 percent, Jordan Petroleum Refinery Co. Ltd. as 12.08 percent, Industrial Commercial and Agricultural Co. Ltd. as 8.01 percent and the lowest by the Jordan Pipes Manufacturing Co. Ltd. as 0.55 percent.

The consolidated total of the cash and bank balances to current liabilities ratio of the eight companies shows a fluctuating trend from 1975 to 1978, an increasing trend from 1978 to 1980 as against 1977, a declining trend in 1981 and 1982 as against 1981, an increasing trend in 1983 and 1984 as against 1982 and a decline in 1985 as against 1984. It ranged from 9.62 percent in 1982 to 45.71 percent in 1980.