CHAPTER - 7

CONCLUSIONS

AND

SUGGESTIONS

Diseases are made painless, operations are done in the easiest manner, infections are prevented and precautionary measures may be taken to avoid dangerous diseases with the help of pharmaceutical products. The distance from one place to another has been reduced, the travelling from one country to another is made easier, the transportation of scarcity products and perishable goods from one state to another is made simple due to the availability of petroleum products which are used in the transportation media. The productivity of land has increased, the quality of products has improved, the capacity of land is maxmised to meet the requirement of an increasing number of population, (phosphate which is very important for agricultural development). Water has been provided to sky-high buildings, petroleum products are transferred from one place to another, the effect of smokes is avoided and gas is distributed to the public without any hazard with the help of manufactured pipes. The food which is cooked by people needs adding salt which is used in each and every house in the world, salt is prepared with the help of potash manufacturing. The spinning and weaving products are used by everybody in this world. They are used in summer and winter, by the poor and the rich, professors and students to protect themselves from cold and heat and also work as fashionable clothes. The construction of sky-high building, the building of dams, the construction of huge projects, plants and factories and the building where we live are possible due to cement factories.

The large scale industries in a country are a fair index of its growth and economic development. Several large scale companies in Jordan have embarked on exapansion programs. The capacity of phosphate mining has doubled in the Second Five Year Plan as compared to First Five Year Plan and has reached 5 million tons per annum, and the capacity of the Jordan Petroleum Refinery Company has reached 4.2 million tons per annum. The fifth Kiln of the Cement Company has been put into operation, bringing its daily production capacity to more than 3700 tons. The cement company was given a contract for a sixth kiln with a daily capacity of 3000 tons. The production by the Phosphate Mines Company rose from 3.9 million tons in 1980 to 6.1 million in 1985. The production of the Jordan Cement Company increased from 913 thousand tons in 1980 to 2067 thousand tons in 1985. Production by Petroleum Refinery rose from 1.760 million tons in 1980 to 2.424 million in 1985. In 1983, the Arab Potash Company started its production which amounted to 908 thousand tons in 1985. The export of industrial products rose from JD 29.4 million in 1975 to JD 97.4 million in 1980 and the export of phosphate increased from JD 19.6 million in 1975 to JD 57 million in 1980.

CONCLUSIONS

Profit is an absolute figure and considered to be the most important objective for any activity. Neither the law has defined profit nor have accountants unanimously arrived at a standard definition of profit. There have been differences of opinion in defining, and computing the profit of the concerned business for a

given period of time among accountants, economists and businessmen. Hence, the profit of a company should be examined and analysed from quantitative as well as qualitative aspects. The definition of profit from an accountant's point of view and from economist's point of view is worth noting. The distinguishing features of the concept of accounting profits and economic profits are that the accountants regard profit as the total income minus explicit cost, while the economist calculates profit by deducting both explicit and implicit costs from the total income over a period of time.

Profitability is defined as the capacity or power to earn profit by use of investment over a period of time. Moreover, profitability of the company indicates its financial ability to enhance the income earning capacity. It is one of the most significant aspects of the financial appraisal of the companies because it provides an answer to very important questions such as how is business ?, What are the reasons behind low profitability?, what are the degree of profitability in business? These issues get resolved by measuring the concept of profitability. The word profitability is different from the word profit. Profit is an absolute connotation whereas profitability is a relative concept. Profit is an absolute figure but profitability is a rate, ratio between two figures, percentage, times of turnover.

Profitability is directly related to productivity and capacity, an increase in productivity results in greater profitability; productivity and efficiency of the unit in investment made in the company. It expresses the technological

relationship between input and output. An increase in the productivity leads to a decrease in the cost per unit and increases the profitability. Likewise, an increase in the capacity utilization results in higher profitability and lower capacity utilization leads to lower profitability in the company.

The effeciency of profitability analysis of a company can be measured by many ways. However, return on investment is considered to be the prime measure of profitability for an industry. Profit margin and assets turnover constitute the essential parts which are taken into account for computing return on investment. Profit margin and assets turnover are the two - tier structure of the Du Pont System which is used for finding out return on investment.

In this study, other measures of profitability such as value added have also been adopted. Value added is the net value or wealth created by the company during a specified period. It is an important measure to examine the efficiency or inefficiency of the business.

The present study of profitability is aimed to examine the performance of the selected eight large scale industries in Jordan for eleven years (from 1975 to 1985). The required data for the present study has been obtained mainly from the annual reports of the studied companies. However, for the purposes of analysing the profitability, the profit and loss accounts and balance sheets of the studied companies have been represented in condensed form. With the help of this data, various ratios were calculated and different statements were prepared. Some

statistical techniques like regression analysis, percentage, graphs etc. have been applied.

After examining and analysing the profitability of the eight selected industrial companies in Jordan from 1975 to 1985, the following are the inferences and conclusions drawn :

1. The Arab Potash Co. Ltd. showed the highest percentage of the cost of goods sold to net sales ratios in 1983 as 164.44 per cent and the lowest was by Jordan Phosphate Mines Co. Ltd. as 34.56 per cent in 1975 on an average. The lowest cost of goods sold to net sale ratio were by the Arab Pharmaceutical Manufacturing Co. Ltd. followed by the Jordan Phosphate Mines Co. Ltd., Jordan Petroleum Refinery co. Ltd., Jordan Cement Factories Co. Ltd. and the highest was by Arab Potash Co. Ltd.
2. The Jordan Phosphate Mines Co. Ltd. showed the highest gross profit to net sales ratio as 65.44 in 1975 and the lowest is shown by the Arab Potash Co. Ltd. as (-)64.44 in 1983. On an average, the highest gross profit to net sales ratio showed by the Arab Pharmaceutical Manufacturing Co. Ltd. was followed by Jordan Petroleum Refinery and the lowest was by Arab Potash Co. Ltd.
3. In the gross profit to net capital employed ratio the highest percentage is shown by the Jordan Cement Factories Co. Ltd. in 1975 as 453.07 per cent and the lowest was in 1980 by the Jordan Spinning and Weaving Co. Ltd. On an average, the highest gross profit to capital employed ratio was by the Jordan Cement Factories as 58.60 per cent followed by Jordan Petroleum Refinery Co. Ltd. as 57.17 per

cent and the minimum was by Jordan Spinning and Weaving Co. Ltd. as (-)2.12 per cent. The consolidated total of the eight companies varied from 9.96 per cent in 1983 to 92.78 per cent in 1975.

4. The percentage of manufacturing expenses to net sales ratio varied from company to company because of the type of technology used. The consolidated total of the manufacturing expenses to net sales ratio of the eight companies ranged from 56.30 per cent in 1978 to 84.66 per cent in 1983 and showed an increasing trend in the period taken up for the study. On an average, the highest manufacturing expenses ratio was by the Arab Potash Co. Ltd. as 128.38 per cent followed by Jordan Spinning and Weaving Co. Ltd. as 101.39 per cent, Industrial Commercial and Agricultural Co. Ltd. as 84.86 per cent and the lowest was by Jordan Pipes Manufacturing Co. Ltd. with 11.20 per cent.

5. The consolidated total of the administration and general expenses of the studied companies ranged from 4.60 per cent in 1982 to 13.55 per cent in 1978. The percentage varied from company to company due to the administration policy determined by the particular company. The lowest percentage was by the Jordan Petroleum Refinery Co. Ltd. in 1984 as 0.61 per cent and the highest was by the Arab Potash Co. as 185.73 per cent in 1983.

6. The percentage of selling and distribution expenses to net sales ratio varied from company to company due to location factors as transportation charges differed from one company

to another, which is mainly based on the location of the industry. On an average, the lowest percentage was by the Jordan Cement Factories as 0.13 per cent followed by the Arab Potash Co. Ltd. with 0.40 per cent, Jordan Petroleum Refinery Co. Ltd. as 4.33 per cent and the highest was by the Jordan Phosphate Mines Co. Ltd. as 23.18 per cent. The consolidated total of the selling and distribution expenses to net sales ratio of the eight companies ranged from 5.58 per cent in 1983 to 18.55 per cent in 1977. It showed a decreasing trend in the Second Five Year Plan(1981-85) as compared to the First Five Year Plan (1976 -1980).

7. The operating profit before taxes to net sales ratio ranged from 47.29 per cent in 1975 by the Arab Pharmaceutical Manufacturing Co. Ltd. and the lowest was by the Arab Potash Co. Ltd. (-)250.17 per cent in 1983. It showed a decreasing trend in the Second Five Year Plan as compared to the First Five Year Plan. On an average, the highest percentage was generated by the Arab Pharmaceutial Manufacturing Co. Ltd. as 28.62 per cent followed by Jordan Cement Factories Co. Ltd. as 16.30 per cent. Jordan Phosphate Mines Co. Ltd. as 16.20 per cent and the lowest was by the Arab Potash Co. as (-)123.86 per cent.

8. The operating profit after taxes to net sales ratio ranged from 35.64 per cent by the Jordan Cement Factories Co. Ltd. in 1975 to (-)250.17 per cent in 1983. The consolidated total of the operating profit after taxes of the eight industrial companies ranged from (-)1.71 per cent in 1983 to 9.48 per cent in 1975. It showed a decreasing trend in the

Second Five Year Plan as compared to the First Five Year Plan. On an average, the highest percentage was generated by the Arab Pharamaceutical Manufacturing Co. Ltd. as 18.48 per cent followed by Jordan Cement Factories Co. Ltd. as 9.66 per cent and the lowest was by the Arab Potash Co. as (-)123.86 per cent.

9. The Arab Pharmaceutical Manufacturing Co. Ltd. showed the highest net profit to net sales ratio as 29.54 per cent in 1975 and the Arab Potash Co. Ltd. showed the lowest ratio as (-)243.78 per cent. The consolidated total of the net profit to net sales ratio of the eight companies showed a decreasing trend in the Second Five Year Plan as compared to the First Five Year Plan. Net Profit margin had been affected to a large extent by the non-operating surplus/deficit.

10. Regarding the consolidated total of the total assets turnover of the studied companies ranged from 0.33 in 1978 to 0.81 in 1984. This means that every dinar invested in total assets gave less than one dinar of sales but it may be concluded that the total assets turnover in the studied companies was not satisfactory, since the ideal ratio is 1.5 to 2 times. On an average, the lowest total assets turnover ratio was by the Arab Potash Co. Ltd. as 0.11 and the highest was by the Industrial Commercial and Agricultural Co. Ltd. as 0.86. Sales during the period of study could not increase considerably which resulted in a decrease in the total assets turnover. The selected industrial companies are

highly capital intensive in nature. All the selected companies have invested huge capital in total assets which was not accompanied by increase in sales.

11. The consolidated total of the operating assets turnover of the studied eight Companies ranged from 0.46 in 1978 to 0.85 in 1984. The lowest ratio generated over the period of study was by the Arab Potash Co. Ltd. as 0.04 in 1983 and the highest was by Jordan Petroleum Refinery Co. Ltd. as 1.85 in 1984. On an average, the lowest ratio was by the Arab Potash Co. Ltd. and the highest was by the Industrial Commercial and Agricultural Co. Ltd. as 0.87. It may be concluded that the operating assets turnover in the eight selected companies was not satisfactory.

12. The consolidated fixed assets turnover for all the units ranged from 0.89 in 1982 to 2.15 in 1975. On an average, the highest fixed assets turnover ratio was by the Jordan Phosphate Mines Co. Ltd. as 2.46 and the lowest by the Arab Potash Co. Ltd. as 0.14. The fixed assets assets turnover ratio of the all studied companies was not satisfactory because the ratio was much below the norm of 4 to 5 times. The low ratio shows marketing inefficiency and ineffective utilization of fixed assets by the company.

13. On an average, the Jordan Cement Factories Co. Ltd. showed the highest current assets turnover ratio as 2.30 times followed by the Jordan Petroleum Refinery Co. Ltd. as 1.83 times and the lowest was by the Arab Pharmaceutical Manufacturing Co. Ltd. as 0.87 time. The Jordan Cement Factories Co. Ltd. showed the highest current assets

turnover as 4.13 times in 1982 and the Jordan Spinning and Weaving Co. Ltd. showed the lowest as 0.40 time in 1982. It may be concluded that the Arab Pharmaceutical Manufacturing Co. Ltd. and the Jordan Spinning and Weaving Co. Ltd. made excessive investment in current assets particularly in form of debtors and inventory. These companies which have low current assets turnover ratio should try to reduce their stock of inventory and debtors.

14. The consolidated total of the net working capital turnover of the eight selected companies ranged from 1.91 times in 1976 to 28.83 times in 1982. This ratio shows the quntum of net working capital utilized to generate volume of sales. It indicates the efficiency or otherwise in the utilization of short-term capital in making sales. The consolidated total of the eight companies showed and an increasing trend in the Second Five Year Plan as compared to the First Five Year Plan. The lowest net working capital turnover generated over the period of study was by the Industrial Commercial and Agricultural Co. Ltd. as (-)79.81 in 1982 and the highest was by the same company as 60.71 in 1985.

15. The consolidated total of the receivable turnover ratio of the eight selected industrial companies ranged from 2.89 times in 1982 to 7.90 times in 1983. On an average, the highest receivable turnover ratio was by the Jordan Cement Factories Co. Ltd. as 45.64 times followed by the Jordan Spinning and Weaving Co. Ltd. as 13.50 times and the lowest ratio was by the Arab Pharmaceutical Manufacturing Co. Ltd.

as 1.80 times. The ratio varied from 0.53 in 1983 by the Arab Potash Co. Ltd. An increase in the receivable turnover ratio means a decrease in sundry debtors against sales and a decrease in the ratio means the company adopted a more liberal credit policy.

16. On the basis of this study it can be stated that the average collection period in the large scale industrial companies studied registered a decreasing trend in the Second Five Year Plan as compared to the First Five Year Plan. It decreased from 66 days in 1978 to 3 days in 1982. On an average, the highest average collection period was by the Arab Potash Co. Ltd. as 765 days followed by the Arab Pharmaceutical Manufacturing Co. Ltd. as 207 days and the Jordan Phosphate Mines Co. Ltd. as 144 days and the lowest was by the Jordan Cement Factories Co. Ltd. as 31 days. It can be concluded that the collection departments of the companies having large average collection period were not prompt in their collection from debtors. It is proposed that the companies should try to improve their procedures for the collection of receivables.

17. It is evident from the study that ratio of cash and bank balance to current liabilities of the studied companies ranged from 0.02 per cent by the Jordan Pipes Manufacturing Co. Ltd. in 1975 to 28578.39 per cent in 1976 by the Arab Potash Co. Ltd. The consolidated total of cash and bank balance to current liabilities ratio of the eight companies varied from 9.62 per cent in 1982 to 45.71 per cent in 1980. The ratio cash and bank balance to current liabilities was

not satisfactory in most companies selected for the study. The companies were unable to pay off their current liabilities. This indicates company's lack of proper planning regarding its cash management. It is suggested that the companies should increase cash and bank balance in all companies except in the Arab Potash Co. Ltd. and the Jordan Spinning and Weaving Co. Ltd.

18. This study shows that the return on gross capital employed ranged from (-)47.53 per cent in 1980 by the Jordan Spinning and Weaving Co. to 40.49 per cent in 1975 by the Arab Pharmaceutical Manufacturing Co. Ltd. The consolidated total of the eight companies ranged rom 1.36 per cent in 1983 to 16.63 per cent in 1975. It showed a decreasing trend in the Second Five Year Plan as compared to the First Five Year Plan. On an average, the Arab Pharmaceutical Co. Ltd. maintained 18.04 per cent which is considered to be more than the standard 17 per cent as favoured by Brown and Howard.

19. The consolidated total of the return on net capital employed of the eight companies ranged from 1.81 per cent in 1983 to 38.56 per cent in 1975. It showed a decreasing trend in the Second Five Year Plan a compared to the First Five Year Plan. On an average, the highest return on net capital employed was by the Jordan Cement Factories Co. Ltd. as 55.08 per cent followed by the Arab Pharmaceutical Manufacturing Co. Ltd. as 23.25 per cent and the Jordan Phosphate Mines Co. Ltd. as 20.72 per cent. On making an

appraisal of some of the companies, it was observed that the difference between the return on gross capital employed and return on net capital employed was quite substantial due to current liabilities.

20. As far as the return on shareholders' equity is concerned, the ratio varied from (-)225.24 per cent in 1980 by the Jordan Spinning and Weaving Co. Ltd. to 41.41 per cent in 1975 by the Arab Pharmaceuticl Manufacturing Co. Ltd. The consolidated total of the eight companies ranged from 0.40 per cent in 1983 to 15.49 per cent in 1975. It shows a declining trend in the Second Five Year Plan as compared to the First Five Year Plan. On an average, the highest percentage generated was by the Arab Pharmaceuticl Manufacturing Co. Ltd. as 16.80 per cent followed by the Jordan Phosphate Mines Co. Ltd. with 16.26 per cent and the Industrial Commercial and Agricultural Co. Ltd. as 10.59 per cent and the lowest ratio was by the Jordan Spinning and Weaving Co. Ltd. as (-)43.99 per cent. The standard return on the shareholders' equity is 10-15 per cent.

21. The earning per share (EPS) ranged from (-)111.94 per cent by the Arab Potash Co. in 1984 to 571.32 per cent in 1975 by the Arab Pharmaceutical Manufacturing Co. Ltd. On an average, the highest earning per share was by the Arab Pharmaceuitical Manufacturing Co. Ltd. as 166.38 per cent followed by the Jordan Petroleum Refinery with 121.02 per cent, Jordan Cement Factories as 94.69 per cent, Jordan Pipes Manufacturing Co. Ltd. as 31.88 per cent, Jordan Phosphate Mines Co. Ltd. as 27.56 per cent, Industrial

Commercial and Agricultural Co. Ltd. as 17.15 per cent, Jordan Spinning and Co. Ltd. as (-)19.86 per cent and the lowest was by the Arab Potash Co. Ltd. as (-)91.18 per cent. The consolidated total of the eight companies ranged from 0.68 per cent in 1983 to 64 91 per cent in 1979. It showed a declining trend in the Second Five Year Plan as compared to the First Five Year Plan.

22. The generation of value added by the Arab Pharmaceutical Manufacturing Co. Ltd. ranged from 26.95 per cent in 1976 to 44.63 per cent in 1975. On an average, it generated 35.92 per cent. Thus, one can say that the Arab Pharmaceutical Co. Ltd. proved true to its reputation. The largest share of value added of the company went to shereholders, interest, depreciations, management and unviersities. The value added generated by the Jordan Petroleum Refinery ranged from 1.52 per cent in 1983 to 37.48 per cent in 1980. The value added generated in the Second Five Year Plan showed a dcreasing trend as compared to the First Five Year Plan. The largest share of value added went to the employees, government, shareholders, depreciation, reserves, universities and management. The company, on an average, generated 20.40 per cent which is considered to be satisfactory.

23. The Jordan Phosphate Mines Co. Ltd. generated a value added on average of 22.66 per cent. It ranged from 10.62 per cent in 1982 to 30.13 per cent in 1980. It may be concluded that the company generated sufficient percentage of value added. The largest share went to the government followed by

reserves, employees, shareholders, universities and by the management.

24. The present study shows that the value added generated by the Industrial Commercial and Agricultural Co. Ltd. ranged from 4.09 per cent in 1985 to 25.54 per cent in 1975. On an average, the company generated 15.33 per cent which is considered to be insufficient. The largest share of value added went to employees followed by shareholders, government, reserves, management and universities.

25. As far as the Jordan Pipes Manufacturing Co. Ltd. is concerned, the value added varied from 19.37 per cent in 1978 to 30.17 per cent in 1985. It showed an increasing trend in the Second Five Year Plan. On an average, the company generated 24.46 per cent. The largest share went to the employees followed by shareholders, depreciation, interests, reserves, management and universities.

26. Regarding the generation of value added for the Arab Potash Co. Ltd. ranged from (-)62.03 per cent in 1983 to 23.50 per cent in 1985. The value added generated by the company was not sufficient and is considered to be an unhealthy unit but improved in the subsequent years as against 1983.

27. The generation of value added by the Jordan Spinning and Weaving Co. Ltd. varied from (-)17.28 per cent in 1979 to 39.27 per cent in 1985. The company failed to generate sufficient value added specially before 1983 but generated sufficient percentage of value added from 1983 to 1985. The largest share of value added went to the employees followed by depreciations, shareholders, interests, reserves,

management and universities.

28. As far as the generation of value added of the Jordan Cement Factories Co Ltd. is concerned it ranged from 13.77 per cent in 1980 to 54.87 per cent in 1985. On an average the company generated 35.82 per cent. The largest share of value added went to depreciation followed by shareholders, employees, government, interest, reserves, universities and managements. Thus the management succeeded in generating sufficient percentage of value added and fulfilling its responsibility towards society, at large.

29. Regarding the consolidated generation of value added of the eight companies ranged from 10.41 per cent in 1983 to 28.50 per cent in 1978. Taking the eight companies as one unit, on an average, they generated 21.56 per cent. It showed a declining trend in the Second Five Year Plan as compared to the First Five Year Plan due to an increasing trend in the cost of production.

30. Further analysis shows that the Jordan Spinning and Weaving Co. Ltd. on an average paid the largest share of value added of 43.75 per cent to its employees followed by the Jordan Pipes Manufacturing Co. Ltd. as 36.28 per cent, the Industrial Commercial and Agricultural Co. Ltd. as 34.37 per cent, the Jordan Petroleum Refinery as 32.47 per cent, the Jordan Cement Factories Co. Ltd. as 19.86 per cent and lastly by the Arab Pharmaceutical Manufacturing Co. Ltd. with 12.57 per cent.

31. Regarding the share paid to shareholders, the Arab Pharmaceutical Manufacturing Co. Ltd. distributed the maximum of 39.54 per cent followed by the Jordan Pipes Manufacturing Co. Ltd. with 30.33 per cent, the Industrial Commercial and Agricultural Co. Ltd. as 28.50 per cent, the Jordan Phosphate Mines Co. Ltd. as 27.82 per cent, the Jordan Spinning and Weaving Co. Ltd. as 22.83 per cent, the Jordan Cement Factories Co. Ltd. as 22.65 per cent and the Jordan Petroleum Refinery Co. Ltd.

32. The Jordan Phosphate Mines Co. Ltd. paid 33.02 per cent which is the maximum share of value added to the government followed by the Arab Pharmaceutical Manufacturing Co. Ltd. with 27.26 per cent, the Jordan Petroleum Refinery Co. Ltd. as 21.59 per cent, the Industrial Commercial and Agricultural Co. Ltd. as 20.64 per cent and the Jordan Cement Factories Co. Ltd. as 18.09 per cent.

33. Regarding depreciation by the different companies studied on an average, the Jordan Spinning and Weaving Co. Ltd. deducted the maximum as 32.82 per cent followed by the Jordan Cement Factories Co. Ltd. with 29.59 per cent, the Jordan Petroleum Refinery Co. Ltd. as 17.71 per cent, the Jordan Pipes Manufacturing Co. Ltd. as 17.70 per cent and lastly by the Arab Pharmaceutical Manufacturing Co. Ltd. as 1.28 per cent.

34. The Jordan Phosphate Mines Co. Ltd. kept the maximum reser ves on an average of 19.81 per cent followed by the Arab Pharmaceutical Manufacturing Co. Ltd. as 16.82 per cent, the Jordan Cement Factories Co. Ltd. as 12.86 per cent, the

Jordan Petroleum Refinery Co. Ltd. as 8.99 per cent, the Industrial Commercil and Agricultural Co. Ltd. as 7.64 per cent, the Jordan Pipes Manufacturing Co. Ltd. as 3.75 per cent and the Jordan Spinning and Weaving Co. Ltd. as 3.59 per cent.

35. Regarding the share paid to providers of funds, the Jordan Cement Factores Co. Ltd., on an average, paid the maximum of 16.20 per cent followed by the Jordan Spinning and Weaving Co. Ltd. as 14.70 per cent, the Jordan Pipes Manufacturing Co. Ltd. as 14.30 per cent, the Arab Pharmaceutical Manufacturing Co. Ltd. as 4.31 per cent and the Jordan Petroleum Refinery Co. Ltd. as 1.50 per cent.

36. The management got the maximum remuneration on an average from the Jordan Pipes Manufacturing Co. Ltd. of 2.29 per cent followed by the Industrial Commercial and Agricultural Co. Ltd. with 1.34 per cent, Arab Pharmaceutical Manufacturing Co. Ltd. as 0.77 per cent, the Jordan Spinning and Weaving Co. Ltd. as 0.67 per cent, the Jordan Cement Factories Co. Ltd. as 0.24 per cent, the Jordan Petroleum Refinery Co. Ltd. as 0.15 per cent and the Jordan Phosphate Mines Co. Ltd. as 0.13 per cent.

37. Regarding the share of value added to universities, on an average, the maximum share was contributed by the Arab Pharmaceutical Manufacturing Co. Ltd. as 0.39 per cent followed by the Jordan Pipes Manufacturing Co. Ltd as 0.32 per cent, the Jordan Cement Factories Co. Ltd. as 0.28 per cent, the Industrial Commercial and the Agricultural Co.

Ltd. as 0.27 per cent, the Jordan Phosphate Mines Co. Ltd. as 0.24 per cent and lastly by the Jordan Petroleum Refinery Co. Ltd. as 0 21 per cent.

38. The Linear Bivariate Model without time Lag in net profit regression result shows a positive association and is statistically significant for the Jordan Petroleum Refinery Co. Ltd. and the Industrial Commercial and Agricultural Co. Ltd. The regression results for the Jordan Pipes Manufacturing Co. Ltd. and the Arab Potash Co. Ltd. are statistically very significant but are not according to apriory sign i.e. growth : new profit relationship is negatively associated with each other where it is supposed to be positive. The results reveal that the growth of the Jordan Spinning and Weaving Co. Ltd. is positively associataed with net profit but does not have any statistical significance. The results also show that the Arab Pharmaceutical Manufacturing Co. Ltd. the Jordan Phosphate Mines Co. Ltd. and the Jordan Cement Factories Co. Ltd. are neither according to apriory sign nor statistically significant.

39. The Linear Bivariate Model without Time Lag in gross profit regression results reveal a positive association and statistical significance for the Jordan Phosphate Mines Co. Ltd. and the Industrial Commercial and Agricultural Co. Ltd. The regression analysis results of relation (1) for the Jordan Pipes Manufacturing Co. Ltd., the Arab Potash Co. Ltd. and the Jordan Cement Factories Co. Ltd. show that they are statistically very significant but do not match with the

apriory sign. Though, they are supposed to be positively related to each other they seem to have a negative association. The Arab Pharmaceutical Manufacturing Co. Ltd. and the Jordan Petroleum Refinery are found to be according to apriory sign but are not statistically significant. The Jordan Spinning and Weaving Co. Ltd. was neither found to be having a positive association between growth and gross profit nor statistically significant.

40. The Linear Bivariate Model with Time Lag in the net profit regression results (relation 2) show a positive association between growth and net profit and are statistically significant for the Jordan Petroleum Refinery Co. Ltd. and the Jordan Phosphate Mines Co. Ltd. The regression analysis results for the Industrial Commercial and Agricultural Co. Ltd., the Arab Potash Co. Ltd. and the Jordan Cement Factories Co. Ltd. seem to have a positive association between growth and net profit but are not statistically significant. The Arab Pharmaceutical Manufacturing Co. Ltd., the Jordan Pipes Manufacturing Co. Ltd. and the Jordan Spinning and Weaving Co. Ltd. do not seem to have a positive association between net profit and growth nor are statistically significant.

41. As far as the Linear Bivariate Model with Time lag in gross profit regression analysis results are concerned, show that the Arab Pharmaceutical Manufacturing Co. Ltd., the Jordan Petroleum Refinery Co. Ltd. and the Jordan Phosphate Mines Co. Ltd. are positively associated with growth rate and have

significant statistical relationship. The results for the Jordan Pipes Manufacturiang Co. Ltd. shows statistical significance but have a negative relationship between growth and gross profit. The Arab Potash Co. Ltd. results are positively related with growth rate but do not have any significance statistically. The results also show that the Industrial Commercial and Agricultural Co. Ltd., the Jordan Spinning and Weaving Co. Ltd. and the Jordan Cement Factories Co. Ltd. are neither found to be positively associated with growth nor statistically significant.

42. The estimated growth rate as a function of profitability (net profit and gross profit) for the Arab Pharmaceutical Manufacturing Co. Ltd. are more than the actual growth rate with and without time lag from 1977 to 1983 and in 1985.

43. The actual growth for the Jordan Petroleum Refinery Co. Ltd. is more than the estimated growth rate as a function of profitability with and without time lag in 1975, 1976, 1981 and 1982, while for the remaining years studied the estimated growth rate is more than the actual growth rate.

44. The estimated growth rate as a function of profitability is less than the actual growth rate with and without time lag for the Jordan Phosphate Mines Co. Ltd. in 1975, 1979, 1980 and 1981 but in the rest of the years undertaken in the study the estimated growth rate is more than the actual growth rate.

45. The actual growth rate for Industrial Commercial and Agricultural Co. Ltd. is less than the estimated growth rate

as a function of profitability with and without one year lag in 1976, 1978, 1983 and 1984, while in the other years in the study the estimated growth rate is less than the actual growth rate.

46. The actual growth rate for Jordan Pipes Manufacturing Co. Ltd. is more than the estimated growth rate as a function of profitability with and without time lag in 1976 and 1977 while in the remaining years in the study the actual growth rate is less than the estimated growth rate.

47. The estimated growth rate as a function of profitability is less than the actual growth rate with and without time lag for the Arab Potash Co. Ltd. in 1978 and in 1985 whereas in the remaining years with study the actual growth rate is less than the estimated growth rate.

48. The actual growth rate for the Jordan Spinning and Weaving Co. Ltd. is more than the estimated growth rate as a function of profitability with and without one year lag in 1976, 1976 and 1981 but in the rest of the years undertaken in the study the actual growth rate is less than the estimated growth rate.

49. The estimated growth rate as a function of profitability for the Jordan Cement Factories Co. Ltd. with and without time lag is less than the actual growth rate in 1976 and 1980 while in the remaining year in the study the actual growth rate is less than the estimated growth rate.

50. The profitability of the eight large scale industies in Jordan selected for study is found to be affected by various factors which may curtail profitability. These factors play

an important role in the determination of profitability. The general factors considered as determinants of profitability are pricing policy, availability of raw materials, foreign competition, governemt policy, technical manpower, techniques of production, availability of energy, capacity utilisation, availability of substitutes and other factors such as lack of interconnection between industrial sector and agricultural sector, lack of inter connection between the companies themselves, the continous increase in the input cost of production, inadequacy of tax incentive policy and inadequacy of encouragement of investment law.

51. The capital output ratio (X7) plays the most effective role in determining the profitability for the selected large scale industries in Jordan i.e. it is according to apriory sign and are statistically significant for the Arab Pharmaceutical Manufacturing Co. Ltd., the Jordan Phosphate Mines Co. Ltd. and the Agricultural Commercial and Agricultural Co. Ltd. On the other hand, this variable (X7) is considered to be either according to apriory sign or statistically significant for the Jordan Petroleum Refinery Co. Ltd., the Jordan Spinning and Weaving Co. Ltd. and the Jordan Cement Factories Co. Ltd. But X7 is neither according to apriory sign nor statistically significant for the Jordan Pipes Manufacturing Co. Ltd.

52. The debt-equity ratio (X6) is considered to be another factor as determinant of profitability of the studied industries. This variable is according to a priory sign and

is statistically significant for the Arab Pharmaceutical Manufacturing Co. Ltd. and for the Jordan Petroleum Refinery Co. Ltd. and for the another companies studied it is either found to be according to apriory sign or statistically significant or none of the two.

53. The variable (X2) i.e. net fixed assets as proportion of total net assets, is found to be according to apriory sing and statistically significant for the Jordan Spinning and Weaving Co. Ltd. However, it is found to be either statistically significant or shows a negative sign for the rest of the companies in the study.

54. If we examine the performance of the rate of growth of assets (X4), we observe that this variable proved most effective for the Jordan Cement Factories Co. Ltd. The variable is positively related with profitability and is statistically significant to the company. On the other hand, the variable is either according to apriory sign or statistically significant for the Arab Pharmaceutical Manufacturing Co. Ltd., the Jordan Petroleum Refinery Co. Ltd., the Jordan Phosphate Mines Co. Ltd., the Industrial Commercial and Agricultural Co. Ltd. and for the Jordan spinning and Weaving Co. Ltd. The variable is found to be neither positive to profitability nor statistically significant for the Jordan Pipes Manufacturing Co. Ltd.

55. Turnover assets ratio i.e. (X1) is observed to have coefficient statistically significant and positively related to profitability for the Jordan Spinning and Weaving Co. Ltd. However, this variable is either according to apriory

sign or statistically significant for the Arab Pharmaceutical Manufacturing Co. Ltd., the Jordan Phosphate Mines Co. Ltd., the Jordan Pipes Manufacturing Co. Ltd. and athe Jordan Cement Factories Co. Ltd. But the variable is not important and does not affect the profitability of the Jordan Petroleum Refinery Co. Ltd. and the Industrial Commercial and Agricultural Co. Ltd.

56. As far as rate of inflation (X5) is concerned, it is observed that, its coefficient is statistically significant and positvely related to profitability for Arab Pharmaceutical Manufacturing Co. Ltd. The variable found to be either according to apriory sign or statistically significant for the Jordan Petroleum Refinery Co. Ltd., the Industrial Commercial and Agricultural Co. Ltd., the Jordan Spinning and Weaving Co. Ltd. and the Jordan Cement Factories Co. Ltd. On the other hand, the variable is not an important factor as determinant of profitability for the Jordan Phosphate Mines Co. Ltd. and the Jordan Pipes Manufacturing Co. Ltd.

57. Variable (X8) i.e. fixed assets sales ratio shows the effectiveness for apriory sign and is statistically significant for the Jordan Cement Factories Co. Ltd. It is negatively associated with profitability of the company and is statistically significant. The variable is either according to apriory sign or statistically significant for the Arab Pharmaceutical Manufacturing Co. Ltd., the Jordan Pipes Manufacturing Co. Ltd. and the Jordan Spinning and

Weaving Co. Ltd. On the other hand, the variable is not important and does not contribute to the profitability of the Jordan Petroleum Refinery Co. Ltd., the Jordan Phospate Mines Co. Ltd. and the Industrial Commercial and Agricultural Co. Ltd.

58. As far as the performance of cost of goods sold to sales ratio (X9) is concerned, the variable is negatively related to profitability and statistically significant for the Jordan Spinning and Weaving Co. Ltd. On the other hand, the variable is either matching with apriory sign or statistically significant for the Jordan Petroleum Refinery Co. Ltd., the Jordan Pipes Manufacturing Co. Ltd. and the Jordan Cement factories Co. Ltd. But the variable is not important for determining profitability for the Arab Pharmaceutical Manufacturing Co. Ltd., the Jordan Phosphate Mines Co. Ltd. and the Industrial Commercial and Agricultural Co. Ltd. It is neither according to apriory sign nor statistically significant.

59. Variable (X3) i.e. index of sale shows the weakest performance. This variable did not prove effective for any of the companies studied. However, this variable is neither positively related to profitability nor statistically significant for the Jordan Petroleum Refinery Co. Ltd., the Jordan Phosphate Mines Co. Ltd., the Jordan Spinning and Weaving Co. Ltd. and for the Jordan Cement Factories Co. Ltd. On the other hand, this variable did not contribute to the profitability of the Arab Pharmaceutical Manufacturing Co. Ltd., the Industrial Commercial and Agricultural Co.

Ltd. and for the Jordan Pipes Manufacturing Co. Ltd.

The present study of profitability of the selected large scale industries in Jordan faced difficulty of non-availability of data which is necessary for the purpose of the study e.g. the share of interest from total value added for the Jordan Petroleum Refinery Co. Ltd. from 1975 to 1982, the share of depreciation and interest from the total value added for the Jordan Phosphate Mines Co. and for the Industrial Commercial and Agricltural Co. and data for the cost of materials consumed during the year for the Industrial Commercial and Agricultural Co. Ltd. is not available.

The Industrial Companies which have been selected for this study are not homogeneous. Therefore, comparison between the different industrial companies is not possible as the conditions prevailing in the different companies differ from one company to another. The conditions which prevail for the Arab Pharmaceutical Manufacturing Co. Ltd. are different from those of the Jordan Cement Factories Co. Ltd. However, due to lack of homogeneous industries in large number in Jordan, we have presented the comparision between the different industrial companies for academic purposes irrespective of different conditions prevelant in the the different industries.

S U G G E S T I O N S

From the analysis and conclusions drown, the following are some suggestions made for improving the performance of profitability of the selected industrial companies in Jordan.

1. In spite of the fact that the industrial companies in Jordan are now producing various types of products of international standard by collaborating with foreign countries and importing the latest technology and modern machinery, the industrial companies faced cut throat competition from the cheaper imported product which result in reduction in profit or even loss for the industrial companies in Jordan. Hence, it is proposed that the government of Jordan take effective steps to stop the import such products and impose different duties on imported products in the country.
2. The Government of Jordan must offer concession and taxfree import of machine tools required by the different industrial companies in Jordan to enable them to improve the products and face competition from the imported products. The raw materials needed by the various industries be exempted from import tax to offer the industrial companies adequate support for modernisation, needed to face the cut-throat competition.
3. The management of the industrial companies studied should made inter-firm comparison between actual and standard cost of production. Management of materials plays the most effective role in the determination of the cost of

production. A special attention is needed to deal with the materials more efficiently.

4. The cost of production must be checked periodically, and increase in the cost of any item should be checked immediately applying cost reduction and cost control techniques such as, standard costing, ratio analysis, budgetary control. Special efforts must be mode to reduce manufacturing cost, general and administration and selling and distribution expenses. The productivity of labour should be reviewed from time to time specially for companies which are labour incentive in nature.

5. Profitability is determined by the cost selling price relationship. The government of Jordan should adopt a proper policy of fixing the prices. The fixation of the prices should take into account the rise in the cost of production and enough margin to be earned by industry. The prices should be based on comparable rate of return on investment over a period of time. The government should not fix the prices less than the cost of goods sold, and if the cost increases the government should increase the selling price in the same proportion. The price policy should be revised at every regular interval according to the cost structure of the company.

6. The increasing sales lead to an increase in the profit volume of the company. Sales can be increased by creating a certain image and reputation for the company's product in the market. The improvement in the quality of the product is necessary to increase the sales and compete with other

profitability. The preparation of financial statement on the basis of historical cost does not offer any importance as if it is based on the current value of assets. Thus, true profitability is judged on the basis of figures given in the financial statement on current value basis.

11. A revision in laws pertaining to industrial licensing registration of factories, expansion, encouragement to investment, attracting Arab and foreign capital to Jordan market and participation of foreign companies be made.
12. The management should try to increase the marketing and export efficiency abroad. The government of Jordan should strengthen commercial ties with Arabs to encourage joint Arab market and to expand the scope of Arab investment in Jordan.
13. It is suggested that the government take action to regulate the import of goods similar to domestic products to protect domestic goods by all possible means. The government should encourage the establishment of export-oriented centers and provide incentives for import-substitution industries.
14. In order to meet social responsibility, the procedures and requirement be adopted to combat industrial pollution by making it compulsory for industrial companies to adopt preventive measures through protecting the environment from pollution.
15. It is suggested that the staff of the Amman Chamber of Industry be trained to provide answers and information regarding the industrial investment and product marketing. Also, settting up sections within the chamber specializing

in pharmaceutical, petroleum, Phosphate, Potash, Cement etc. for the purposes of collecting data and up-dating records related to these industries.

16. The industrial companies should establish their own power generating houses. The production of the companies should not be interrupted due to power cut or shortage. The companies should keep extra power generators to be used at the time of emergency.

17. The government should close down the sick companies. Those industrial companies which incur losses over a long period of time be shut down so that the required finance can be provided for major rennovations.

18. In order to enable the employees to give their best contribution to the company, the company should provide them necessary facilities such as hospitals, canteens, educational institutions, transportation, sports, cultural programmes, literacy and other social welfare programmes.

19. The interconnection, integration and coordination among the different industrial companies be made. The coordination among potash, phosphate and other industries in the field of marketing, training, maintenance and transportation be achieved for an integrated development of the industrial sector.

20. New units of the industrial companies be established in areas where raw materials are available in plenty. This will minimise the cost of transportation and the profit will be raised.

A practical application of the above mentioned suggestions and their implemention in the industrial companies in Jordan can improve the profitability of these industries in the coming years.