CHAPTER - 1

INTRODUCTION

THE IMPORTANCE OF THIS STUDY

Industrial development plays an important role in the projects and plans of most developing countries, as the principle means of realising social and economic development. The developed countries and many developing counties at different times give priority to industrialisation in its economic plans and make great efforts to keep pace with the industrial development.

Effective planning of industrial development in Jordan began in the early fifties with the government encouragement and support for this development. Among the most important of these industries are cement, potash, spinning and weaving, glass, phosphate and petroleum. Concentrated efforts on industrial development continued and it was reflected in the significant role assigned to the industrial sector in all social and economic development plans in Jordan.

Industry in Jordan like many industries in developing countries during the stage of development has been transformed from being a local market industry to export oriented industry in many cases. Its competitiveness became an important issue for economic policy makers and for exporting firms.

The government of Jordan adopted the policy of free economy with the existence of both public sector which is run by the government and the private sector which is working under competitive forces. Making profit is the main objective of every industrial company. Therefore, profitability which is the most acceptable measurement and the yard-stick for judging the efficiency of the company in industrial sector should be given an important role and place in the industrial sector in Jordan.

Most of the countries in the world except communist countries still consider profit motive as the most important incentive for the existence and development of industries. As profit is the prime aim of the company in most of the industries in the world (except in communist countries), the study of profitability is equally important and must be given due importance.

After the First World War and the Great Depression that resulted from the war and on different occasions the shortage of some products led the strong believers of price - profit mechanisms to find out another approach, which would be suitable to the two extreme approaches i.e. the capitalist approach and the communist approach. Consequently, the economists and researchers arrived at an approach instead of the two extreme approaches. This middle approach is known as 'mixed economy'. However, the Government of Jordan has adopted free economy approach where it is participates in some of the industries, while the other is governed by price - profit mechanism where the profit motive is the most important objective of the industry, and still, some of the economists believe that profitability is the most important regulator of economic activities. The importance of profitability also occurs as most of the firms consider the maximisation of profit as an indicator of the development of the firm. In the private sector the development of industrialisation is judged by the amount of profits which the firm gets. Most of the enterprises always look forward to every opportunity to maximise the profit and at the same time avoid every possibility of losses. G J.Stigler maintains: "and in the opposite world, there no change would be on the rate of return, every surge of demand would find the industry unprepared and its prices and profit rate would rise, every cessation of demand would find the industry over expanded and its output selling at distress prices"[1].

Moreover, profitability plays an important and dual role in the investment of the enterprise. On the one hand, the amount of profit which the company gets will be an attractive incentive to investors to invest their money in the enterprise. The attraction of investors depends firstly on the profitability of the enterprise. If the enterprise is maintaining sufficient amount of profits, the number of investors will be more and if the profitability is less or if the firm incurs losses then the number of investors will also be less. Investors will always look to the profitability of the concerned business before taking decision regarding the investment of their money in any business; if the profitability is sufficient enough, the investors will be encouraged to invest their funds in such a business. On the other hand, the accumulative amount of profits which is derived from the operation of the business will be used for further investment in the company itself or somewhere outside the company. That is why, it is said that the profitability of an industry is a fulcrum around which the entire business activities rotate.

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1. Stigler G.J.,Capital and rate of Return in Manufacturing Industries, A Study by National Bureau of Economic Research, Princeton University Press, New York, 1963, P.4

M.C.Gupta mentions: "profits and profitability play the same role in business as 'blood' and 'pulse' in the human body. The survival of a human being is not possible in the absence of adequate blood and ability to generate blood. The same may be applied to business. It is very difficult for a firm to survive without prospect and ability to earn adequate profits. Profits and profitability are, therefore, the nerve-knob of a business and without it the existence of a firm is like a body without the back-bone"[2]. Lord Keynes also described it as "Profit is the engine that drives the business enterprise". Profitability is used to judge the efficiency and performance of the management.

OBJECTIVES OF THIS STUDY

The present study aims at getting an insight into the profitability of selected large scale industries in Jordan. The basic objective of the study is to evaluate the performance of selected industrial companies over a period of eleven years.

Profitability of the business is the statistical yard-stick for meausring the ability and efficiency of a particular company over a period of time. Moreover, profitability is the main source of investment and for the growth of the business. The objectives of the present study on the "profitability of selected large scale industries in Jordan", are :

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2. Gupta M.C., Profitability Analysis, An Empirical Approach, Pointer Publisher, Jaipur, 1989, P.10

1) To judge the financial strength and the changes therein. The main objective of this study is to examine and analyse the available data regarding the selected large scale industries and to examine whether the profitability regarding these industries are favourable or not. If the profitability is favourable we will examine the degree of its efficiency and if it is unfavourable we have to find out the reasons regarding that.

2) To review and evaluate the existing knowledge regarding the profitability of selected large scale industries in Jordan by analysing the available data and comparing them with the standard ratios.

3) To study the development and improvement in the rate of profitability over a period of eleven years which is related to selected large scale industries in Jordan and study the main causes for this improvement.

4) To assess and find out the different factors which affect and determine the rate of profitability of selected large scale industries in Jordan.

5) To bridge the gap between the theoritical and practical part of profitability. Inspite of the important role which profitability plays in the economy, there is not a single study or research on the profitability of large scale industries in Jordan which has been completed. Moreover, very few such researches are completed in developing countries.

6) To assess the fulfilment of targets drawn by different companies under study and their contributions to national development.

7) To examine the success of the management in reducing the cost of production and increasing economic returns.

8) To enable the government to know about the profitability of the industries, to frame a suitable tax policy for a particular industry over a period of time.

9) To facilitate accountants having academic interests to know and examine the inter-industry and inter-firm profitability ratios over a period of time and the profitability of different companies needed by the accountants for the purposes of comparision between different companies over a period of time.

10) To make suggestions and recommendations regarding the profitability of selected large scale industries which may help in the improvement or raising up the rate of profitability in Jordan.

The profitability analysis and measurement are important to different persons such as businessmen, accountants, government workers, investors and economists to frame their policies according to their interests.

THE PRESENT STUDY

The present study, entitled "Profitability of Selected Large Scale Industries in Jordan", is an attempt to evaluate the performance and efficiency of the selected industries. The seleced large scale industries have been chosen because they are vital to keep the other activities going and are linked with the growth of a number of other industries in Jordan.

For the purpose of the present study eight industrial companies have been selected on the basis of the following criteria :

1) All these industrial companies had a paid up capital more than JD 2000,000 in 1975.
2) All these industrial companies have been established in Jordan before 1975.

For the above mentioned two conditions there are only nine industrial companies. These companies are :

1) THE ARAB PHARMACEUTICAL MANUFACTURING CO. LTD.
2) THE JORDAN PETROLEUM REFINERY CO. LTD.
3) THE JORDAN PHOSPHATE MINES CO. LTD.
4) THE INDUSTRIAL COMMERCIAL AND AGRICULTURAL CO. LTD.
5) THE JORDAN PIPES MANUFACTURING CO. LTD.
6) THE ARAB POTASH CO. LTD.
7) THE JORDAN SPINNING AND WEAVING CO. LTD.
8) THE JORDAN CEMENT FACTORIES CO. LTD. AND
9) THE JORDAN GLASS INDUSTRIES CO. LTD.

Due to unavailability of data and lack of information regarding the Jordan Glass Industries Co. Ltd., we have omitted this company for the purpose of our analysis. Our analysis of profitability of selected industrial companies in this study has covered around 32% of the total industrial companies in Jordan in 1975 (8 out of the 25 industrial companies), 29.62 percent in 1976 (8 out of the 27 industrial companies), 27.58 per cent in

1977 and 1978 (8 out of the 32 industrial companies), 25 percent in 1979 (8 out of the 35 industrial companies), 20 per cent in 1981 (8 out of the 40 industrial companies), 18.60 per cent in 1982 (8 out of the 43 industrial companies) and 17.39 per cent in 1983, 1984 and 1985 (8 out of the 46 industrial companies).

The companies which are covered in the earlier years have been covered also in the subsequent years, but the establishment of new companies in subsequent years led to a decrease in the percentage of the companies covered in the study.

HYPOTHESES OF THE STUDY

Our study of the profitability of selected large scale industries in Jordan is aimed at examining the following hypotheses :

A) <u>Concept and Measurement of Profit and Profitability</u>

The word profitability is derived from two words 'profit' and 'ability'. Ability means power of operating performance of a given investment. On this basis, profitability may be defined as the ability or power of a given investment to earn from its operations. Profitability is a relative term and its measurement may be acheived by profit and its relation to the other objects by which profit is affected.

Figures indicate the percentage of the number of companies covered in this study out of the total number of companies existing in each year.

The objective of this study is to examine the efficiency and performance of the selected large scale industries in Jordan which require us to take into consideration the Return on Investment(ROI).

The measurement of profitability is like the measurement of temperature and humidity. The measurement of profitability by an accountant or analyst can be compared with the reading of humidity by a meteorologist. Just as the temperature of the day or month can be recorded and forecasting for the temperature in the future can also be based on the previous reading of temperature, so the analysis and measurement of profitability of the companies can be known and on the basis of which the profitability for the future companies can be planned.

However, for the purpose of analysing the efficiency and profitability of the companies studied, we will examine the different concepts and definitions of profit and profitability with their problems to arrive at a more or less standard definition to analyse the profitability of selected large scale industries in Jordan.

One of the objectives of this study is to examine the profitability which represents return on investfment. Profit and profitability are the concepts which different groups of people are interested for different purposes. Moreover, it is observed that different groups of people define profit and profitability in various ways according to their objectives.

Discussing a number of definitions adopted by different people and institutions, we attempt to discuss and examine the various problems in defining and measuring profit and profitability and various uses to which those concepts and definitions can be applied for various objectives. Chapter Two is devoted to discussing the various concepts and mesurement of profit and profitability.

B) Profit Margin and Assets Turnover

Usually the accountants and analysts consider the return on investment as the key and basic measure for the profitability of an industry. Profit margin and assets turnover form the most significant parts for computing return on investment. The analysis of profitability on the basis of this criteria would be very significant for different industrial companies studied over a period of time. Profit margin is found out of a percentage of sales of the products. It is the key figure of the income statement computed as total sales minus sales return, discounts and rebate etc. The company should obtain sufficient amount of profit so that it will be able to cover its fixed cost and fixed charges on debts. The operating profit margin is useful to the management and shareholders because it indicates the efficiency and ability of the management in operating the company successfully or not.

On the other hand, assets can be defined as the total economic resources owned by the company which can be conveniently expressed in terms of money. The selected industrial companies are highly capital intensive in nature which need huge investment. What are the factors which are responsible for the decreasing profitability? Did these companies not manage their financial resources in the required manner? Are the market conditions responsible for the inefficiency of the studied companies? Was managerial inefficiency responsible? Were under capacity and low productivity the main factors? All these questions will be answered in chapter three while discussing the profit margin and assets turnover. For this purpose we will apply various ratios such as gross profit to net sales ratio, cost of goods sold to net sales ratio, gross profit to capital employed ratio, manufacturing expenses ratio, administration and general expenses ratio, selling and distribution expenses ratio, operating assets turnover ratio, fixed assets turnover ratio, current assets turnover ratio, net working capital turnover ratio, receivable turnover ratio, average collection period and cash to current liabilities ratio.

C) <u>Return on Capital Employed and Value Added Analysis</u>

Capital employed does not have any specific meaning which all the accountants and analysts may rely on. Various definitions of capital employed are used by different accountants depending on various objects. Capital employed is defined as the investments made in the business. But investment means different things to different persons. One accountant may include certain items of investment while the other may exclude such items from definition of investment. However, while defining capital employed there are many problems whether one should include or exclude the outside investment in the definition of capital employed? Should the intangible assets be considered while computing capital employed? Should we include gross or net working assets in the definition of capital employed? The standard definition of gross capital employed is the total of fixed assets and current assets while net capital employed means the total of fixed assets plus net working capital (current assets - current liabilities) but the shareholders equity or net worth is equal to total of equity share capital plus preference share capital plus share premium plus reserves and surplus minus accumulated losses. For the purpose of measuring the profitability of the company we will examine the return on gross capital employed, return on net capital employed, return on shareholders equity and earning per share which will be discussed in the first part of chapter four.

The second part of chapter four will discuss the value added statement of the eight selected industrial companies in Jordan from 1975 to 1985. Value added is the wealth or value created to the company during a given period of time. The company may not exists for a long period without adding or creating value. The value added statement is a wider concept than profit. Many items are deducted from the total revenues while preparing profit and loss account but they are not deducted while computing the value added statement. Those items such as salaries, welfare expenses, depreciations, interests and dividend on borrowed capital, taxes etc. It has proved to be a good measure for evaluating the profitability of the industrial companies particularly in the developed countries.

D) Profitability and Growth

The classical economists believe that once the enterprise reaches on equilibrium point there will be no further possibility to grow because there will be no incentive to grow and at this point there is no relationship between profitability and growth. The equilibrium positon of the enterprise will be reached only under free competition running of economy. Free competition will be reached only with technical uses substitution of capital instead of labour and some other factors which are very difficult in different countries to reach. The earlier belief in relationship between profitability and growth may not prove valid now because the economic situation and conditions which exist now are completely different from the conditions which were existing before. In fact, the growth of an enterprise depend on many factors such as, market conditions, demand and supply, government interference, availability of capital, cost of borrowing, management policy of the enterprise and profitability of the enterprise. The profitability of the enterprise plays major and fundamental role in the growth of the entrprise because it gives the enterprise the ability to grow. Higher the rate of profitability in the enterprise, more will be the availability of capital, the existence of capital will give the enterprise the ability to reinvest and get new capital. The relationship between profitability and growth exist only when there is willingness to grow and other conditions remain constant. However, profitability provides only an incentive to grow but there are other factors such as competition, willingness of the management etc. For example, the growth rate is not always a result of increase in the profitability because there is a possibility of competition amongst the leading companies to increase their market share and grow faster than other companies at the same level of profitability.

The assumption in this study is the existence of a positive relation between profitability and growth of the company. What kind of relationship exists between profitability and growth in the eight selected large scale industries in Jordan? Is the increase in Profitability accompanied by an increase in the growth? Chapter five presents a detailed discussion on the profitability and growth.

E) <u>Determinants of Profitability</u>

This part of the study examines different factors which affect the profitability over a period of time for the selected industrial companies in Jordan. Firstly we will examine the general factors and secondly the explanatory factors on the basis of regression analysis will be discussed.

i) General Factors :

The general factors to be discussed in this part may affect the profitability of selected eight industrial companies in Jordan. Factors such as pricing policy, availability of raw material, foreign competition, government policy, technical manpower, techniques of production, availability of energy, capacity utilisation, availability of substitutes, conditions prevailing in the economy and other factors which may affect the overall profitability of selected large scale industries in Jordan will be discussed.

ii) Explanatory Factors :

There are many specific factors, which are called explanatory factors, to be analysed on the basis of regression analysis. A number of hypotheses need to be established based on each explanatory variables regarding the relationship between profitability and each variable. The Linear Multiple Regression Model is to be used for both Time Series and Cross Section analysis. Chapter Six will examine the determinants of profitability. The following factors are to be considered as determinants of profitabiliy.

1) Turnover Assets Ratio (X1)

2) Net Fixed Assets as proportion of Total Net Assets (X2)

3) Index of Sales (X3)

4) Rate of Growth of Assets (X4)

5) Rate of Inflation (X5)

6) Debt - Equity Ratio (X6)

7) Capital - Output Ratio (X7)

8) Fixed Assets - Sales Ratio (X8)

9) Cost of goods sold to sales ratio (X9)

The conclusions and suggestions derived from the analysis of profitability of eight selcted industrial companies in Jordan are to be presented in Chapter Seven.

SOURCES AND COVERAGE OF DATA

The above mentioned hypotheses cover a major part of the study of profitability analysis. The period selected for study ranges from 1975 to 1985. This period has been chosen because there have been many developments and changes in the Jordanian industrial companies and there were two five year plans (1976-1980 and 1981-1985). So that, the comparison can be easily drawn between the two five year plans.

The mining and manufacturing sector registered substantial growth during the period of the study, and its share in GDP (Gross Domestic Product) increased from 18.7 per cent in 1975 to 24.1 per cent in 1980 and reached to 24.5 per cent in 1985.

Investment during the Fist Five Year Plan (1976-1980) in mining and manufacturing sector amounted to JD 317 million while the investment in Second Five Year Plan allocated about JD 759 million, of which JD 230 million were earmarked for potash, fertilizers and phosphate.

On the expansion side, the sales of the Arab Pharmaceutical Manufacturing Co. Ltd. increased from JD 1933811 in 1975 to JD 4146324 in 1980 and reached to JD 10174880 in 1985. Production by Petroleum Refinery rose from 828197 tons in 1975 to 1760175 tons in 1980 and reached to 2423937 tons in 1985. Production by Jordan Phosphate Mines Co. Ltd. rose from 1.36 million tons in 1975 to 3.9 tons in 1980 and reached to 6.1 million tons in 1985. The Industrial Commercial and Agricultural Co. Ltd. increased its production for JD 2340209 in 1975 to JD 4993011 in 1980 and reached to JD 705188 in 1984. The production of Arab Potash Co. Ltd. rose from 280000 tons in 1983 (first year of production) to

486868 tons in 1984 and reached to 908560 tons in 1985. The Jordan Spinning and Weaving Co. Ltd. increased its sales from JD 824896 in 1980 to JD 2451133 in 1985 and the Jordan Cement Factories Co Ltd. increased its production from 584690 tons in 1975 to 634570 tons in 1980 and reached 2621036 tons in 1985.

The industrial production growth had a positive effect on export performance of the sector. Industrial and mining exports rose from JD 2.9 million in 1975 to JD 97.4 million in 1980 and reached JD 213.7 million in 1985.

Investment in Phosphate and Potash projects produced an increase in exports of industrial sector from JD 27.2 million in 1980 to JD 98.5 million in 1985, at an average annual growth rate of 15.9%.

Table 1.1

Distribution of Outstanding Industrial Development Bank Credit to Industrial Sector.

Year	Bank Credit to Industrial Sector	Year	Bank Credit to Industrial Sector
1975	2436 8	1981	8247.0
1976	3523.0	1982	10307.0
1977	4701.8	1983	8344.0
1978	5147.5	1984	7115.0
1979	3798.0	1985	7480.0
1980	6512.0		

Source : I.D.B. Annual Reports.

Note : 1. Figure in table 1.1 includes loan for Tourism

2. In 1980 I.D.B. Started giving loan for the purpose of purchasing raw materials.

From the above table it is clear that the industrial Development Bank increased its credit to industrial sector over a period of our study except in the year 1979, 1983 and 1984 where the table indicates a negative sign.

Table 1.2

Distribution of Outstanding Commercial Bank Credit to Industrial Sector in Thousands of JDs

Year	Bank Credit to Industrial Sector	Year	Bank Credit to Industrial Sector
1975	15114	1981	89264
1976	22140	1982	112601
1977	26832	1983	138970
1978	38289	1984	169788
1979	60515	1985	189235
1980	73075		

Table 1.2 gives evidence that the credit facilities advanced by commercial banks to manufacturing and mining have expanded. The sector's share of total credit extended by commercial banks rose from 12.9% in 1980 to 14.9% in 1985.

Sources : Central Bank of Jordan, Yearly Statistical Series (1964-1983) and the Annual Report of Industrial Development Bank for the year of 1985.

Note : Figures include mining and industry.

The Amman Chamber of Industry in Cooperation with the Ministry of Industry and Trade is preparing a Craft Industry Law which aims at organizing, encouraging, aiding and protecting the industrial sector. With regards to the organizational measures, many things were implemented by the government of Jordan such as Industrial Estate, Licensing Industry, Customs Tariff, Law of Encouragement of Investment, Training and Qualifying, Studies and Surveys, Tax Law Company Law etc. Therefore, there was justification for chosing selected large scale industries for the study. The sources for the data collected from the Central Bank of Jordan and Department of Statistics, where the annual, quarterly and the monthly reports by the Central Bank of Jordan are available for different companies chosen for the study.

METHODOLOGY AND DATA COLLECTION

The data to be collected for the analysis and the purpose of the study has different sources. For collecting the basic statics, we will have to rely on various publications and annual reports which contained audited balance sheets and profit and loss accounts of the companies, on the basis of which the study is to be conducted. The Ministry of Industry and Trade, Ministry of Planning, Department of Statistics, Amman Financial Market, Government and Semi-Governmental agencies, Central Bank of Jordan and Research output of individual researchers are connected with this study. Thus, the annual, monthly, weekly publications as well as the annual reports of various companies are to be used for the purpose of our study. Different articles published in different countries such as International Journal and Specialised

Journal which deal with Jordanian industries are also useful for our study We will rely mainly on published data. Profitability ratios and other financial ratios, statistical methods, other accounting methods and principles are to be adopted for analysing of this study.