CHAPTER - VI :

DETERMINANTS OF PROFITABILITY :

GENERAL FACTORS

I. PURPOSE :

Before we embark upon the examination of variations in rate of profit with the help of factors like, Turnover, Assets Ratio, Net Fixed Assets as Proportion of Total Net Assets, Capital-Output Ratio, Index of Production, Rate of Inflation, Growth of Capital and Debt-Equity Ratio, we intend to discuss the impact of general factors and government policy, on the functioning of different industries, thereby affecting the growth and profitability of these industries. The specific variables mentioned above are analysed in the next chapter with the help of regression analysis. In this chapter, we present the nature and growth of each industry individually in the light of government policy during different plan periods. This will enable us to understand the variations in profitability both among industries and over time, in a broader perspective.

The mixed econmies like India, where public and private sectors co-exist, development is achieved through allocating scarce resources through planning. This involves the control and regulation of the private sector for the fulfilment of the objectives of the plan. The Government of India laid down certain objectives while framing the Industrial Policy Resolution of 1956. The important objectives being acceleration of economic growth, speedy industrialization, development of heavy and key industries, encouragement to small-scale and cooperative sectors, reduction in disparities in income and wealth, prevention of monopolies and concentration etc.

These objectives are laid down with the intention of adopting an egalitarian type of society. This implies that the private sector industries in India have to attune themselves to the philosophy of democratic socialism and have to operate in union with the government policy. Hence, the private sector industries have to operate under a number of constraints. Hence, Myrdal comments, "In addition there is a whole system of what we shall call "operational controls" over the private sector. Within that system we include all the short range policy measures applied by governments to influence people's economic behaviour in some particular respect ..... operational controls are different from long range reforms in that they are meant to be flexible and continually adjusted to meet variations in economic conditions."[1]

1 Myrdal, Gunnark : Asian Drama, An Inquiry Into the Poverty of Nations. Volume II, Penguin Books, 1968, p.902.

In short, the private sector enterprise in India has a valuable role to play when properly directed and regulated. Hence Paranjape argues, "It was laid down that private sector undertakings "have necessarily to fit into the framework of the social and economic policy of the state" and therefore were to be subject to controls and regulations as required. In other words, the idea was to encourage and assist the private sector but at the same time control its working in the public interest."[2]

II. GENERAL FACTORS :

(A) Government Policy :

The foregoing arguments reveal that the activities of private sector industries in India are highly influenced by the Government policy. This implies therefore that the earning capacities of these industries are also greatly affected.

The government adopts different measures for controlling and regulating the private sector industries. On one side, the Government aims at encouraging certain industries through positive controls while on the other side, certain industries are regulated by negative controls.

2 Paranjpe, H.K. : "Industrial Growth with Justice - India's Strategy" In Some Problemsof India's Economic Policy,ed. Wadhva, Charan D. Tata McGraw-Hill Pub.Co.Ltd., 1977, p.333.

The positive controls aim at encouraging investment, providing technical assistance, giving subsidies, credit on easy terms, having import control, custom barriers, protection against foreign competition etc. The negative controls, on the contrary, are meant to prevent or limit production or consumption by means of controlling production directly, or controlling distribution of products, prices, capacity expansion, investment, foreign exchange etc. Briefly speaking, the positive controls are adopted to enhance the progress of the industry and hence affect the earning capacity also positively. On the contrary, the negative controls are adopted for restricting the activities of the industry and hence affect the earning capacity adversely.

As mentioned above, the Indian Government aims at adopting an egalitarian type of society and has therefore adopted a mixed economy. The Indian Government therefore controls and regulates the private sector industries, and fully recognizes the valuable services provided by this sector. In order to achieve the stated goals the government adopts controls which are either positive or negative as described above. These controls are further classified as direct or physical controls and indirect controls.

Direct controls affect, particular producers' and consumer's choices in the economy and are in the form of licensing, rationing, price controls, export-duties, import--export and exchange controls, quotas, authorisation, rationing of foreign exchange, antihoarding control, monopoly control etc., Indirect controls, on the other hand, are known as general controls which affect prices and hence the income and transaction within the economy. In short, the indirect controls affect the overall aggregate demand of the economy and include fiscal and monetary measures and refer to controls such as taxation, expenditure and borrowing measures of the State and to the monetary policy of the Central Bank of the country. We summarise below different controls adopted in the Government policies coupled with other factors influencing the profitability of each of the 21 Indian Manufacturing industries. However, before examining the influence of these controls we would like to narrate other factors which affect the profitability of different industries.

(B) Other Factors :

Over and above the Government policy, there are certain other factors which also affect the profitability of the industry. Most important among them are (i) availability of adequate quality of raw material (ii) recessions, or recovery conditions prevailing in the economy (iii) existing techniques of production - old or modern (iv) capacity utilization,

(v) prevalence of competition, (vi) availability of substitutes (vii) labour conditions etc.

The shortage of raw materials, dominance of old techniques of production, prevalence of sick units, underutilization of capacity, labour unrest, etc. affect the productive capacity adversely while recession, introduction of substitutes etc. affect the demand conditions adversely, consequently affecting the earning capacity of the industry adversely. Hence, the necessity of examining these factors also while explaining the trends and structure of profit rates. We have examined these factors briefly and narrated their influence upon profitability in the following discussion.

III. NATURE OF DIFFERENT INDUSTRIES :

Amongst the 21 Indian Manufacturing Industries studied, some are agro-based (e.g. Grains and Pulses, Edible Vegetable and Hydrogenated Oils, Sugar, Tobacco, Cotton Textiles, Jute Textiles and Paper & Paper Products), while some are mineral based (e.g. Iron & Steel, Aluminium, Ferrous/Non-Ferrous Metal Products, Capital Goods Industries like Transport Equipment, Electrical Machinery Apparatus and Appliances, Machinery other than Transport, etc.) and some are chemical-based (e.g. Basic Industrial Chemicals, Medicines and Pharmaceutical Preparations, Other Chemical

Products, Match etc.), while industries like Silk-Rayon & Woollen Textiles and Rubber & Rubber Products are both agro-based as well as chemical based industries.

Some of these industries are producing essential consumers goods, e.g. Grains & Pulses, Edible Vegegable and Hydrogenated Oils, Sugar, Cotton Textiles, Silk-Rayon and Woollen Textiles, Medicines and Pharmaceuticals, Paper & Paper Products etc., while some are producing essential basic and capital goods for the industrial development of the country, e.g. Iron & Steel, Aluminium, Basic Chemicals, Cement, Engineering Industries etc.

The Government has to follow the policies such that the supplies of the products of these industries be equitably distributed and at reasonable prices. The need for price controls and rationing arises because the supplies of these commodities normally fall short of demand for them. Normally, the controlled prices are fixed at low levels irrespective of the cost structures. Even if some rise in price is allowed due to rise in costs, the former is much less than the latter and hence lowers the levels of profits achieved. In short, the price control acts as a disincentive because it reduces the levels of profits achieved and hence results in low profitability. Consequently, the growth of the industry also is adversely affected because low profitability leaves small amounts for reinvestment in the same industry and at the same time proves incapable of attracting outside capital too.

Secondly, some of the strategic resources used by different industries are very scarce, and need to be allocated and utilized in a best possible way. Hence, the scarce strategic resources like raw materials, imported machinery foreign exchange, cement, iron and steel, etc. are distributed through fixation of quotas, duties and rationing of these resources.

Thirdly, from the point of view of having balanced development of different sectors, and, from the point of view of implementing a policy of decentralisation, the government controls the investmentin certain industries through licences thereby controlling the production of the imdustry. A new license is required in case an industrialist wants to establish a new undertaking, or wants to expand substantially an existing concern or wants to manufacture a new product. Not all but certain priority industries require an issuing of licences under abovementioned conditions.

Fourthly, India has been heavily dependent on foreign imports for its industrialisation. This necessiated following steps : (i) prohibition of the import of certain non-essential commodities (ii) general or individual licensing (iii) exchange control. Consequently, industries cannot import different necessary items as per their requirements and particularly in case of raw materials or machinery etc. Finally the government controls the industries through charging excise duties and cess on the sales of products which results in lowering of profitability. These factors create hindrances in the expansion of industries and affect the productive capacity and profitability adversely. However, certain industries of strategic importance, like Basic and Capital goods industries, are given high priority and hence are preferred most when the question of allocating quottas of raw materials, imported machinery etc. rises. Hence industries like Transport Equipment, Basic Industrial Chemicals, Electrical Machinery etc. have progressed speedily and have been able to raise their profitability levels also. Whereas industries like Iron & Steel, Cement etc. which provide strategic resources for other industries have been facing price controls and have suffered from low profitability. This will be obvious from the following discussion of each of the 21 Indian Manufacturing Industries under study.

IV. IMPACT OF GENERAL FACTORS ON PROFITABILITY OF DIFFERENT INDUSTRIES :

(A) Consumer Goods Industries :

1. The Grains and Pulses : The Grains & Pulses industry depends upon foodgrains & pulses for final production, the production of latter being dependent on the vagaries of nature. The production of foodgrains and pulses therefore has always remained fluctuating causing large shortages of raw materials, for this industry. Secondly, these articles are used directly for consumption and hence fall in the category of essential consumers' goods. The overall supplies of these being less than the overall demand for them, the problem of proper distribution at reasonable prices is faced. This is reflected in the food control & rationing adopted by the government from independence till to-day. Further, after 1959-60, the country is suffering from deterioration in food situation till 1974-75, with some improvements in between. This is reflected in shortages of food grains & pulses and hence in lowering of production & profitability of the Grains & Pulses industry. It can clearly be seen from Table 3.1 that gross profit rate for the industry was rising and was quiet high for the period 1953-54 to 1960-61 and then declined. With exceptions of

some years, the gross profit rate is observed to be relatively low in latter period. Similar trend is observed in case of net profit rate. Value of Trend Coefficient is observed to be around -.281 and -.585 for gross and net profit rate respectively, The former being statistically non-significant while latter is significant at 1% level.

2. <u>The Edible Vegetable and Hydrogenated Oils</u> : The Edible Vegetable and Hydrogenated Oils Industry is another agro-based industry using groundnuts, cottonseeds, soyabeans, sunflowers etc. as raw materials in the production of edible and processed oils. Hence, the industry suffers from violent fluctuations in the supply of these materials as well as their prices, which in turn get reflected in the profitability earned by this industry. Secondly, this industry produces the commodity categorised as essential consumers' good. Moreover, the demand for the edible vegetable and hydrogenated oil has always exceeded the supply and all these factors have necessitated the government for adopting price controls over the products of the industry. However, the continuously rising demand for Edible Oils and Vanaspati (Hydrogenated Oils) has resulted in raising their prices high and this is reflected in high profits earned by the industry over time. The time trend analysis of Chapter III reveals that the profitability (gross as well as net) of

this industry has increased considerably over time.

There existed excise duty on vegetable oils which was abolished in 1963 and replaced by price control on Vanaspati. However, the price control was of informal type and subject to revisions according to the rise in costs.

Prior to the imposition of price control in 1963, there existed cut-throat competition among the Vanaspati Manufacturers which prevented them from earning reasonable profits.[3]

This is reflected in our data pertaining to gross as well as net profit rates, for Edible Vegetable & Hydrogenated Oils industry which are observed to be either very low or negative till 1963-64. The informal price control on Vanaspati in 1963 seems to have worked satisfactorily in the beginning because of the good supply of oilseed crops which brought the production of Edible Oils and Vanaspati to the satisfactory level. However, the industry faced shortages of oil seeds and the production and profitability were adversely affected due to failure of oilseeds crops in 1966 and 1967. However, there was plentiful supply of oil seeds due to good crop in 1967-68 and is reflected in the Profitability for the years 1968-69 and 1969-70. The Industry again suffered from low production and profitability due to

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3 Chhatrapati, A.C. : "Control on Vanaspati Prices". In A Profile of Indian Industry, ed.by Vadilal Dagli, Vora & Co., Pvt.Ltd., 1970, p.230.

fluctuating supplies of oil seeds for three years i.e. 1970-71 to 1972-73, and raised its profitability during 1973-74 and 1974-75 again.

The fluctuating production and prices are reflected in fleutating profitability of the industry and it is revealed by a high coefficient of variation i.e. .667 and 1.250 for gross and net profit rates respectively.

In short, the Edible Vegetables and Hydrogenated Oils Industry suffered from low profitability (both gross and net) till 1963-64 due to shortages of raw materials of oil seeds as majority of them were wasted as cattlefeed. Secondly, there was cut throat competition among the vanaspati manufacturers till 1963 along with excise duty on oils which reduced the profitability of the industry. And, lastly, the industry being dependent on raw materials coming from agricultural production, has been facing the problem of fluctuating supplies and prices of oilseeds which are reflected in its profitability. Value of Trend Coefficient of Profitability being .491 and .571 for gross and net profit rate respectively. The results are statistically significant at 1% level.

However, the price control on vanaspati from 1963 and record crops of oil seeds in latter years have enabled the industry to raise its profitability and is revealed through the results of Time trend analysis.

3. The Sugar Industry[4] : This is also an agro-based industry and uses sugarcane as raw material in the production of sugar, jaggery etc. which are essential consumer goods.

Sugar Cane, the raw material used by this industry is such that it can neither be stored nor can be transported over long distances. Hence, any fluctuations in the production of sugarcane get immediately reflected into production of Sugar industry. Owing to climatic factors such as rainfall, floods or drought, etc., the production of sugarcane has been subject to considerable fluctuations. Further, there prevails a lack of coordination between sugar factory owners and the sugarcane growers as plantation and factory owners are different. Moreover, the government has been adopting a discriminating policy by clamping controls on sugar while gur and Khandesari are left free. Not only has sugar been under price control, but the industry has to pay heavy tax on sugar in the form of excise duty and purchase tax on sugarcane too. Additionally, the prices of competitive crops for sugarcane e.g. hybrid foodgrains are high and have an adverse influence on sugar-cane production.

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4 Limaye, S.L.: "The Indian Sugar Industry - its problems and prospects". In A Profile of Indian Industries, op.cit., pp.214-226.

Further, the government adopted the zonal system of sugar price fixation which is defective. The ex-factory price fixed for the entire state, or even for the sub-zones, proved to be un-economic and unremunerative to some factories which were less favourably placed (in terms of duration, recovery, availability and equality of cane, rated capacity etc.). All these factors have been responsible for shortages of sugarcane resulting in low production, low remuneration or less for some factories and ultimately in low profitability of the industry.

In addition to these problems, the sugar industry is suffering from obsolete and old machinery which has resulted into low milling capacity and low production.

In short, the shortage of sugarcane and obsolete and old machinery have been responsible for low productive capacity of Sugar industry and thereby have prevented the industry from raising its profitability. On the other hand, the price control till 1967 and partial price control from 1967-68, and the heavy excise duties and sugarcane purchase tax have prevented the industry to reap high profits. Our time trend analysis of profitability for Sugar industry also reveals the similar trend, indicating that gross profit rate for the industry has risen slightly while net profit rate has declined over the period under study. The results are not statistically significant. Trend coefficient is around .094 and -.060 for gross and net profit rate respectively.

4. Tobacco Industry : Manufacturing of Tobacco in India has a recent origin. This industry also is an agro-based one and faces the problem of fluctuations in the supply of raw tobacco due to nature's vagaries. However, our trend analysis indicates that the industry has been capable of raising its gross profitability over time, (results are statistically significant at 1% level), while there is no definite trend for net profitability. India produces a very big portion of raw tobacco and hence a bulk of it is consumed in the country. Hence, tobacco manufacturers do not have to face the problem of shortage of raw tobacco, though they have to pay a high excise duty on it.

In addition to this, the industry is capable of utilising the productive capacity over 78%,[5] and has the advantage of keeping production to the required amounts. It is observed earlier, that the Tobacco industry has been able to earn either middle or high rate of gross profit and middle net profit rate over the whole period. This is so because the industry gets large amounts of raw materials as it is produced plentiful in the country, and secondly, demand for tobacco

5 "Capacity Utilization in the Manufacturing Sector : Commerce Research Bureau in A Profile of Indian Industry, op.cit.,p.20.

manufactured goods is rising over time which is reflected through increased consumption of bidis, cigarettes etc. Hence, the production as well as profitability has been raised over the study period. Time Trend Coefficient is observed to be .229 and .020 for gross and net profit rate respectively. It is significant in former case only.

5. Cotton Textile Industry : The Cotton Textile Industry is also another agro-based industry and hence suffers from fluctuations in raw materials. The production of cotton is adversely affected by natural calamities like floods, droughts and irregular rainfall. This results into fluctuations in the supply and the prices of cotton which is reflected in shortage and high prices of raw material for Cotton Textile Industry. This, in turn, raises the cost of production on one hand and affects the production of Cotton Textiles industry adversely, consequently lowering the profitability earned by it.

Further, the Industry has to depend upon imports for long staple cotton.[6] The limited available foreign exchange resources prove inadequate in importing required amount of long staple cotton and hence production and profitability of the industry gets adversely effected.

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6 Sankaran, S. : Economic Development of India, Progressive Corporation Pvt. Ltd., Bombay, 1977, p.430.

Cotton Textile Industry produces essential consumers goods and therefore needs government intervention as far as the pricing and distribution of its products are concerned. Since independence therefore, the Cotton Textile Industry has been subjected to a variety of controls. Hence, Ruia holds, "There were price controls under which prices allowed to the mills did not provide for all the increases in costs, with the result that the vast majority of mills had little or no profits."[7] The price controls were replaced by heavy excise duties in latter half of the fifties. This, also was detrimental to the industry's profitability. Further the control on production of cloth was reduced in April 1968, thereby reducing the area of price control by lowering the quantum of controlled cloth from 40% of production to 25%. This called for readjustment in the burden of excise duties. However, this did not result in overall relief of the burden for the industry as a whole.

In addition to these two factors, the Industry suffered from restrictions on modernising its plant and machinery. Hence, upto sixties, the industry suffered from technological backwardness and low productivity per worker. However, the government realized this fact when it was too late. The industry suffers from old, worn-out and obsolete machinery

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7 Ruia, R.R. : "Rehabilitation of Cotton Mill Industry". In A Profile of Indian Industry, op.cit., p.169.

and this has reduced the productive efficiency of the industry. Out of total 670 mills there were around 125 sick mills in India i.e. around 19% mills were working at a loss or just at the surface, keeping their heads above water. The government took over 103 sick mills and their management was handed over to National Textiles Corporation. This has created additional problems for the economy.

Since the textile machinery production has been started quite recently in the country, the industry had to depend upon the imports of machinery which also proved to be inadequate due to shortages of foreign exchange. This also aggrevated the problem.

The industry also suffered from severe competition in the market. The introduction of synthetic fibre has introduced a close substitute for the cotton fibre and the demand for textiles has shifted from cotton textiles to synthetic fibre cloth. This has also an adverse effect because a fall in demand for cotton textiles would result in cut in production and lowering of the profitability. Finally, the production is adversely affected due to power shortages as well as labour unrest etc. also.

In brief, the Cotton Textile industry is suffering from a number of problems. The industry suffers from (1) irregular and costly supplies of raw materials resulting in high cost of production, (2) old, obsolete and worn out machinery with 19% of units sick, indicating backward technology, resulting in low productive efficiency (3) progressively rising excise duty, (4) rise in dearness allowance to workers, (5) fall in demand for the product in domestic market, (6) power cuts, (7) labour unrest etc. All these factors have been responsible for low productive efficiency and low profitability earned by the industry. This has also created another problem of raising funds for the investment in the industry. Low profits leave small amounts for reinvestment and also create hindrances in getting credit from outside the industry too. All these facts are well reflected in our data on this industry. It can be seen that the industry either earned low or middle profit rates throughout the period (except in 1961-62 and 1973-74) and has suffered from low profitability for majority of the period.

The Time Trend Coefficient is found to be around .148 and .141 for gross and net profit rate respectively. However the results are statistically nonsignificant

6. <u>Silk-Rayon and Woollen Textiles Industry</u> : The Silk-Rayon and Woollen Textiles industry has its birth around second World War, and is a modern industry. It comprises of three types of products manufactured from Silk, Synthetic and Woollen fibres. Though, the silk and woollen textiles

are produced from olden days, their production on modern basis is of recent origin. The industry is highly diversified and is agro as well as chemical based. Though the majority of the raw materials required for this industry are produced in India, they are still not in adequate quantities. However, the industry being highly diversified and well equipped with modern technology, is capable of producing at lower cost. Moverover, the industry has been enjoying the increased demand for the products because of change in consumers' tastes. The products of this industry are close substitutes for cotton textiles and are preferred by consumers due to their durability and other advantages. Hence, the demand for the products of this industry is co ntinuously rising, consequently the production and the profitability, too, are rising.

This is obvious from our findings. The Silk-Rayon and Woollen Textiles Industry has been capable of raising its gross as well as net profit rates over time to the significant level. The results are statistically found to be significant at 1% level. Further, the industry earned low and middle profit rates upto 1958-59 and could raise them to high levels from 1959-60 and could maintain them at high levels there after. ~~[illegible]~~

Our findings are thus backed by the fact that increasing demand and well equipped units enabled this industry to increase its productive efficiency and earning capacity ~~to increase the productive efficiency and earning capacity~~ to a great extent. The Trend Coefficient is around .742 and .554 with respect to gross and net profit rate respectively, the results are statistically found to be significant at 1% level.

7. <u>Medicines and Pharmaceutical Preparations</u> : This industry belongs to the group of Chemical industries which are of very crucial importance. Hence the industries falling in this group are classified under schedule 'B' of the Industrial Policy Resolution of 1956. Hence both the private and public sectors are allowed to establish, manage and run these industries. This industry has a recent origin, has well developed technological base. Due to advancement of medical science and use of up-to-date medical facilities, the industry is facing growing demand for the products. Moreover, the industry is well backed by government encouragement through policies. This is reflected in the profitability ratios of the industry. The industry suffered from low profit rate in the initial stages and raised it high over the 25 years' period. The Time Trend Coefficient is found to be around .832 and .560 for gross and net profit rate respectively, the result being statistically significant at 1% level.

8. Matches : Match industry is comparatively an old industry and produces an essential consumer commodity. Matches haver very few close substitutes right from the beginning. Even to-day only electric and non-electric lighters (stone lighter) have been introduced as substitutes for matches. However, the use of matches is still observed to be very high. The amount spent on matches by any family forms a relatively small proportion of the total expenditure incurred by the family and any fluctuations in the price of matches, therefore do not affect the demand for it. The demand for matches has been rising smoothly with increase in population and the increase is observed to be quite smooth. Moreover, this industry requires small amounts of capital and hence is capable of adjusting its production to the demand for it. This is revealed by our profitability data for Match industry. The industry has been capable of raising its gross profit rate quiet considerably over 20 years' period (upto 1969-70 only the data are available). This is indicated by our time trend analysis of gross profit rates for Match industry. However, the industry has not been able to raise net profitability over the same period. This is due to the fact that the industry has been subject to heavy taxation.

The Industry has been able to maintain its profitability due to steady demand over time and this is reflected in the relatively low values of coefficient of variation around .236 and .277 for gross and net profit rates respectively.

9. Pottery, China, Earthernware and Structural Clay Products : The Pottery, China, Earthernware and Structural Clay Products Industry is a relatively old industry and was established on modern lines before World War Ist. The industry mainly produces consumer goods such as pottery, China and Earthernwares, and other structural clay products like bricks and hume pipes etc. Due to economic development of the country, there has been increasing demand for the products of this industry. Further, the majority of commodities being essential consumption ones, are highly in demand. The industry is well diversified too. Moreover, the products like pottery, China and earthernware being easily breakable, need continuous replacement. Hence, the demand for the product keeps steadily rising. Further, the industry requires comparatively less amounts of capital investments and is therefore quite flexible in production. All these factors help in raising the profitability of the industry over time. Our findings confirms to these facts. The time-trend analysis reveals that the industry has been capable of raising its gross profitability over time (results are statistically significantly) while no definite trend is

observed for net profit rates as the results are statistically non-significant. The value of Time Trend Coefficient for gross and net profit rate is observed to be around .145 and .009 respectively.

10. The Paper & Paper Products Industry : This industry manufactures articles of pulp, paper and paper board, paper bags and boxes, containers, cards, envelopes and wall paper. These products require pulp which is manufactured from wood, rags and other fibres. The beginning of modern paper industry in India dates back to the last quarter of 19th century, though its real growth started after the protection of 1924.

The industry uses bamboo, hard-wood, straw, bagasee and agricultural residues with admixture of bamboo as raw materials in production of cultural papers.[8] The industrial papers & paper boards require long-fibred strong pulp from coniferous wood. However, the principal raw material for this industry is bamboo the supply of which is inadequate. Further, bamboo being quite heavy and located at places away from paper factories, requires great transportation costs to be incurred, thereby raising the cost of production. Since the majority of paper machinery is suitable for bamboo pulp, the change over from bamboo to other raw materials like

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8 Somani, G.D. : "Paper Industry" in A Profile of Indian Industry, op.cit., pp.243-246.

bagasee, hard wood, agricultural residues etc. requires establishment of new machinery. The position of hard-woods as raw material is not favourable for Indian rubber industry and bagasee and agricultural residue are not available in adequate quantities. Hence, the industry has been facing the problem of shortage of raw material, and inspite of rising demand for industrial as well as cultural paper, the production has not been increasing as per requirements.

In addition to this, the industry has been subjected to price control for a number of years. Unduly low prices are fixed for the paper products which have kept the industry's earnings at low level. Consequently, the industry has not been able to generate adequate internal finance or to attract equity investment and its expansion is therefore adversely affected. The government has decontrolled the prices by the end of sixties. By this time the cost of raw materials has doubled.

Further, the industry tried to absorb the rise in cost of production by increasing production through improved techniques and raising operational efficiency and has exhausted all the opportunities in this direction. In short, the shortage and high prices of raw materials, coupled with price control have adversely affected the earning capacity of Paper & Paper Product Industry.

This is confirmed by our data on profitability of this industry. The industry has been earning middle rate of profit for majority of the period and has succeeded in maintaining the same (Both gross as well as net profit rate). Further, there is no definite trend observed in its earnings over time. The value of Time Trend Coefficient is found to be around .073 and .161 for gross and net profit rate respectively. The results are statistically observed to be nonsignificant.

However, a continuously raising demand for its product, the price decontrol and the government encouragement have all resulted into enabling the industry to raise its earning capacity in early seventies.

(B) Basic Goods Industries :

11. The Iron & Steel Industry : This industry had its birth before world war first. It falls in the category of basic industry because its products form the basis of industrial structure. Hence, the industry is included in Schedule 'A' given by the Industrial Policy Resolution of 1956. By virtue of this, any new units of this industry would be set-up by government only (i.e. public sector) while the existing private units were allowed to undertake expansion. Hence, new entry in this industry was barred for private sector.

Moreover, this industry requires heavy capital investment which bears fruits after a long period of time because long gestation period is involved before profits are reaped. Hence, private capital is not much in favour of this industry.

Further, the demand for the product of this industry comes mainly from the public sector and the government. The suspension of government plans, postponement of public sector projects and slow down activities in Railway development plans and engineering industries have all been responsible for large fluctuations in demand for iron and steel and have therefore adversely affected its production and profitability.

Further, this industry depends upon iron ore and caking coal. Though we have enough supplies of iron-ore now, this being a basic industrial material, was under price control. Hence Mahanti observes, "The basic principle underlying the Government's pricing policy is that steel being a prime mover or"number one basic industrial material", its price must not be allowed to rise very high."[9] Thus, the industry suffered from price control from 1940 to 1964. Further, the industry suffered from heavy charges like surcharge duties when the price control prevailed. The Government after allowing for decontrol in 1964 shifted the form of check on the industry and the industry had to pay heavy excise duty from 1964 onwards which mounted to approximately 1/4th of the

9. Mahanti, P.C. : "Steel Industry in Perspective", in A Profile of Indian Industry, op.cit., p.37.

industry's earnings. These two factors acted as a disincentive for the industry, because, the low price and heavy duties reduced the margin of profits earned by the industry. Hence Mahanti comments, "Price increases have been allowed from time to time, but these have not adequately compensated the companies for cost escalations since these do not take place with any retrospective effect now."[10]

Moreover, the industry suffers from inadequate supply of raw material in the form of metallergical coal. Power shortage aggravates the problem by causing under-utilization of capacity(which is to the extent of 40% or more), resulting in low production. Moreover, the industry suffers from problems of management and strained labour relations which also affect the productivity of the industry adversely.

All these factors have resulted into low production and low profitability earned by the industry. This has created the problem of raising finance for the industry also. Low profitability, long gestation period and necessity of heavy amounts of capital, have discouraged the private capital from entering this industry. Further, the financial institutions are also reluctant in providing finance to this industry. This has also aggravated the problem.

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10 Mahanti, P.C.: op.cit., p.41.

Our findings about the profitability of this industry also confirm to these facts. The gross as well as net profitability of this industry has declined considerably over time. The results of time trend analysis are observed to be statistically significant at 1% level (The Time Trend coefficient being -.326 and -.555 for gross and net profit rate respectively). The industry earned high profitability till the adoption of 1956 Industrial Policy, and started deteriorating in earning capacity afterwards. In short, the government policy i.e. price controls and heavy duties on the industry, its incapability of maintaining the demand and its entering the area of production have been responsible for deterioration of earning capacity. To these were added the factors like raw material shortage, power shortage, labour unrest, inadequate finance, etc. and consequently the industry suffered from decline in profitability.

12. <u>Aluminium</u> : Among metals, Aluminium[11] occupies a very important place in the Indian Economy, next only to steel. Due to non-availability of other non-ferrous metals like copper, zinc, lead, tin etc., and, due to its own intrinsic versatile properties (like non-corrosive, non-toxic and an excellent conductor of electricity, strong but

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11 Sabharwal, A.L. : "Growing Demand for Aluminium", in <u>A Profile of Indian Industries</u>, op.cit., pp.73-77.

light in weight etc.), Aluminium has gained very significant position in the economy.

However, The Industry, despite of its significant position, suffers from a number of factors. Firstly, the industry gets its raw materials at very high costs (whether indigenous or imported). Secondly, the capital costs also are very high in India (imported machinery is very costly and indigenous equipment also is quoted at very high prices). These two factors make the production at high costs. Further, the industry is subject to heavy excise duty which amounts to about 25% of the price of the metal. All these factors have resulted into very high prices for the products of the industry and have made the export prices un-remunerative.

However, due to intrinsic properties of Aluminium, the demand for its products has increased considerably. An all-round advance of the economy leads to an increase in demand for the industry. Similarly, sectoral slackening would cause a fall in the demand and would cause a set-back to the industry. This is what is observed in India too.

After 1954-55, an increased use of Aluminium in electrical fields has raised the demand for the industry. A shortage of copper added to an increased demand and use of Aluminium in the country. However, this continued upto the end of IV th Plan after which, the use of Aluminium in power generation and distribution could not be maintained at past rate. In addition, to this, heavy excise duties on metal resulted into slackening of demand for the products of industry. Hence, the industry, which was established around IInd World War, experienced heavy demand till the end of IV th Five Year Plan. This enabled the expansion as well as raising of earnings of the industry. However, the increased costs of raw materials, high capital cost and heavy excise duty resulted into slackening of demand and hampered the growth of the industry after IVth Five Year Plan.

Our time trend analysis for this industry also comfirms to these facts. As far as the gross profit rate is concerned, the industry enjoyed rise in profitability (coefficient being .413) over time (Results are statistically significant at 1% level). However, in case of net profitability, no such definite results are derived (Time Trend Coefficient is .225) Further, the rise in demand is reflected in rising gross profitability from 1954-55 onwards and a clear-cut fall is observed from 1972-73 onwards. Moreover, the industry was a low earning industry in the beginning of the period and raised its profitability to middle and high rates in latter years till 1971-72.

13. <u>Basic Industrial Chemicals</u> : This industry being of very crucial importance, is classified under schedule 'B' of

the Industrial Policy Resolution of 1956. Hence, both the private and public sector enterprise are allowed to establish, manage and run these industries. The chemical Industry is a heterogeneous one and comprises of heavy basic chemicals used for industries and produces the chemicals of basic importants.

The industry is of recent origin and is a modern industry. The chemical industry ranks fourth among the top industries in India, after textiles, iron and steel and engineering. The Industry has received great stimulation in the five year plans.

The Chemical Industry[12] has a reasonable technological base to build upon. Further, the modern technology adopted in agriculture and other sectors, increased use of synthetic fibres and synthetic rubber, resins and plastics etc. has led to overall increase in demand for basic industrial chemicals.

The government has been encouraging the industry as it is very crucial for the overall economic development of the country. Therefore, since the birth upto 1974-75, the industry has expanded so well that it has turned into fullfledged unit from infant. This is very well observed from our data too.

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12 Trivedi, D.M. : "Chemicals : Strategy for Fourth Plan", in A Profile of Indian Industry", op.cit., pp.92-99.

The industry earned low gross and net profits over first 6-7 years and then raised it to high levels and continued to earn high or middle profit rates over the remaining period. Secondly, the industry indicates to have raised both gross as well as net profit rates over time as the results of time trend analysis are found to be statistically significant. (The Coefficient is around .478 and .621 for gross and net profit rate respectively). Thus, the increased demand, government backing and modern technology have all enabled this industry to raise and maintain the high level of profitability in latter period.

14. Cement Industry : The Cement Industry[13] is one of the key and basic industries and assumes an important role in the development of the economy. Cement provides for a basic necessity of life, i.e. shelter. Further this industry contributes to the development or industry as well as progressively modernised agriculture. Inspite of increasingly rising demand, the industry has been facing a number of problems.

The industry requires bulky and weight losing raw materials like limestone, chalk, clay and gypsum etc. Hence, the industry is attracted towards the centres where these are available and is therefore a highly located. Thus the cement producing factories are in majority of the cases situated

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13 Dalmia, V.H. : "Cement Set for Big Stride" in A Profile of Indian Industry, op.cit., pp.89-91.

far away from the centres of consumption. Thereby resulting in the incidence of freight charges adding to cost structure of the industry. Moreover, the machinery used in production is either to be imported or to be purchased in the country itself. In former case, the shortage of foreign exchange has resulted in inadequate imports of cement machinery, while in case of domestic machinery very high cost is to be paid. However, the cement machinery, is manufactured now indigenously and from the point of view of meeting increasing demands, the stress is given more on domestic manufacturing of the cement machinery.

Another problem faced by this industry is continuous government control on distribution and prices of cement from 1945 onwards upto January 1968. This created artificial shortages of cement in the country, resulting therefore in black-marketing and adulteration of cement. The prices of cement were fixed at an artificially low levels without referring to the cost of production. Hence Dalmia comments, "Cement provides a classic example of the effects of a long spell of controls interfering with the free functioning of market mechanism."[14] This had an adverse effect on the industry's capacity to generate internal resources for expansion. Further, the consequent squeeze on profit margin made it difficult to

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14 Dalmia, V.H. : "Strategy for Fourth Plan", in A Profile of Indian Industry, op.cit., p.88.

attract fresh funds from capital market and both these factors affected its capacity to produce and earn profits adversely.

Moreover, the increasing construction activities as a result of industrialization, and progressive modernisation of agriculture, have been pushing up demand for cement. Hence, the demand is always exceeding the supply of cement in India.[15] Realizing the necessity of speedy and extensive expansion, the industry in late sixties has embraked upon expansion programmes. Majority of cement machinery is now produced indigenously. Practical and day-to-day working problems are handled through organised research. Thirty-six research institutions, spread all over the country, are engaged in one or other form of research related to cement and concrete. However, these steps were taken very late.

It is observed from our profitability trend of cement industry, that the industry's gross as well as net profit rates declined over time to a considerable extent (results are statistically significant having the coefficient around -.200 and -.239 for gross and net profit rate respectively). The industry earned middle rates of profits throughout, with few exceptional years of first five year plan in case of gross profit rate, and 1966-67 in case of both rates and

15 Sankaran, S. : op.cit., p.472.

1967-68 in case of net profit rate. The control over the distribution and prices of cement, irrespective of the cost structure of the industry, has resulted in lowering the profitability for the industry. The industry being high capital intensive one, is adversely affected as far as its expansion is concerned. Theindustry was left with very low profits, consequently very less amounts of internal financing could be undertaken. Further, low profitability discouraged outside capital also from entering into the industry. The government steps of decontrol of prices and distribution of 1968 came very late. All these factors had adverse effects on the profitability of Cement industry. Added to these were the problems of power shortages and labour unrest, which affected the production and the profitability adversely.

(c) Capital Goods Industries :

Engineering Industry[16] is a capital goods producing industry and is of crucial significance in determining the pace of economic growth of the country. This industry has been further divided into 3 industries viz., (i) Transport Equipment (ii) Electrical Machinery, Apparatus and Appliances and (iii) Machinery (Other than Transport, etc.).

15. Transport Equipment : As far as Transport Equipment Industry is concerned, it occupies a very important place in

16 Agarwal, A.N.: Indian Economy, Vikas Publishing House Pvt.Ltd., 1977, Chapter 24; pp.405-409.

the development of economy as it produces the capital goods used for forming the infrastructure of the country. With the progress of the economy and with the priority given in plans to the development of the key industries, this industry has received strong backing by the government and is continuously facing the increased demand conditions. The industry is established around World War II, hence it was in its infancy during the first plan year. It got momentum from the IInd Five Year Plan period when the need for speedy industrial development was badly felt. This enabled the industry to expand fast. The industry uses modern techniques of production and is well diversified too.

However, this industry being mainly metal based, has to depend upon iron-steel and other non-ferrous metals the supplies of which are short, and, prices very high. This has pushed up the cost of production. In addition to this, the shortages of power and raw materials along with wage increases, have aggravated the problem.Though there has been increasing demand for the products, the orders are not placed in regular and systematic way and thus have adversely affected the industry in latter years. The Time Trend Coefficient for gross and net profit rate of this industry assumes positive sign having value around .291 and .230 respectively and is statistically found to be significant.

16. Electrical Machinery, Apparatus and Appliances : Similar is true in case of Electrical Machinery industry. The industry got momentum during Second Five Year Plan. This industry produces capital as well as consumers' goods. The development of the economy, the modernisation of agriculture and rural electrification have been responsible for creating high demand for electrical machinery and appliances. The economic growth of the country has raised the per capita income of the people also. This gets reflected in increased demand for electrical appliances used as durable consumer's goods. This implies that the industry, since its inception during Second World War, is enjoying increased demands for its products. However, this industry also faces the same problems discussed above for Transport Equipment Industry. The gross profit rate of this industry indicates rising trend as results are significant, (The trend coefficient = .254) while net profit rate though has positive trend coefficient (.105) the results are statistically non-significant.

17. Machinery (Other than Transport, etc.): Thirdly, the Machinery (Other than Transport Equipment) is also a crucial industry. This industry produces heavy machinery for Textile, Sugar etc. industries as well as produces agricultural implements which are the basic requirements of the self-sufficient economy. Due to the important role played by this industry,

the government has been backing and encouraging the industry. This has resulted into increased demand for its product. However, this industry also suffers from above mentioned problems. The Time Trend Coefficient with values around .091 and .056 for gross and net profit rate respectively are found to be statistically non-significant.

In short, all the three engineering industries though are very important for the development of the economy, have not been able to maintain their progress due to a number of factors like shortage of raw materials, of iron-steel, non-ferrous metals etc., power shortages which affect the production adversely, the rising wages and fluctuating demand conditions etc. all of which have aggravated the problem. This gets reflected in our data on profitability of these industries over the period under study.

The Transport Equipment and Electrical Machinery Industry have both been able to raise their gross profitability over time (results are statistically significant). Similar trend is observed for the former industry in case of net profit rate. As far as the Machinery (Other than Transport Equipment) is concerned, it shows a tendency of profitability towards rising though not as strongly as is the case for other two industries. Moreover, all these three industries got mementum by the end of First Five YearPlan and hence could raise their earning power from 1954-55 onwards. The increased demand for these industries have enabled them to raise the profitability over study period.

18. <u>Ferrous/Non-Ferrous Metal Products</u> : Another Capital goods industry, Ferrous/Non-Ferrous Metal Products, is also a metal based industry. This industry also had its inception around Second World War and was in its infancy during first two five year plan period. The majority of its products are used by the engineering industries ~~and therefore the industry is affected by the engineering industries~~ and therefore the industry is affected by the fluctuations in Engineering Industries. Similarly, the industry is affected by the supply and prices of ferrous/non-ferrous metals like iron and steel, brass, copper etc. Hence, the growth of this industry, its production and profitability is mainly affected by the demand in the engineering industries and supply of raw materials etc. The speedy expansion of engineering industry since Second Plan period, has raised the demand for this industry and it is reflected in its earning capacity. Our time trend analysis also confirms to these facts (results are significant). It is observed that the gross as well as net profit rate of this industry has risen over the period under study (Trend Coefficient is .493 and .505 for gross and net profit rate respectively.

(D) Intermediary Goods Industries :

19. Jute Textile Industry : The Jute Textiles Industry which uses raw jute as raw material also depends upon nature. This industry is also very old one like Cotton Textile Industry. Similar to other agro-based industries, the industry suffers from problem of shortage and high cost of raw material. Due to partition, 72% of Jute producing area has gone to east Pakistan while India is left with most of the jute factories. Due to unstable and erratic nature of harvest the supply of jute has been very irregular. This has resulted into fluctuating production and unstable prices of jute products.

Further, the industry suffers from backward technology as majority of the units are suffering from old, overworked mills using obsolete and wornout machinery. This has resulted into lowering of productive efficiency and lowering of profitability of the industry.

Jute being one of the important industry, producing export commodity, suffers from keen competition in the world market. Irregular and inadequate supplies of raw jute, old units, high costs of raw materials have all been responsible for low production with high costs of production of this industry. Consequently, the final product is sold at very high prices in the world market while other competing countries like

Japan, Philippines, Brazil, Africa, Pakistan manage to produce with low cost as they have been using modern machinery. This makes India's position all the more precarious in the pricing of the product in international market.[17] Further, the industry suffers from heavy duties on exports which has resulted in fall of exports of jute products. The Jute Textile Industry suffers from keen competition from close substitutes newly introduced in the market. An introduction of 'sisal hemps' from Philippines, and of 'paper bags', plastics and polythene bags and coverings' have shifted the demand from 'gunny bags' (Jute product) to these ones. This has resulted into slackening of demand for jute products, resulting further into a cut in production and profitability earned by the industry. Added to these were the factors like the power shortage which were responsible for decline in production.

Briefly, the Jute Industry, suffers from shortages and high prices of raw materials, backward technology and old and obsolete machinery and underutilization of capacity due to power shortages etc. On the other hand, the industry being mainly export oriented, suffers from keen competition in world market and faces the problem of close substitutes also. All these factors have been responsible for low production with high costs, leading to unstable and high prices for its product. Consequently, the demand has been declining and is

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7 Sankaran, S. : op.cit., p.440.

shifted to its substitutes, aggrevating its problems further. All these are reflected in low earnings of the industry. This is very well reflected in our trend analysis. The profitability of the industry has declined over time (both gross as well as net profitability results are statistically non-significant with trend coefficients around -.077 and -.326 for gross and net profit rate respectively.

20. Other Chemical Products : This industry belongs to the group of Chemical Industries. It has a recent origin around 2nd World War. The industry produces products like paints, varnishes, polishes, perfumes, cosmetics etc. which are found to be having increasing growing demand in the country. The industry provide intermediary products to other industries, hence is of a crucial importance for the industrial development of the economy. Hence, the industry got full encouragement and support of the government. Being a modern industry, this industry has a well developed technological base also. All these factors have enabled the industry to raise its profitability from low to high levels over the time. Time Trend Coefficient is .663 and .665 for gross and net profit rate respectively. The results are statistically significant.

21. Rubber & Rubber Products : Rubber and Rubber Products Industry was established around 1920 when first rubber factory

was established at Calcutta.[18] The industry produces products like tyres, tubes, footwear, mechanical rubber goods and rubber sundries, reclaiming of rubber from used tyres, scrap and miscellaneous waste rubber etc. The industry requires raw materials like natural rubber synthetic rubber, reclaimed rubber, carbon blocks, colours, other rubber chemicals etc.[19]

As far as natural rubber is concerned, its prices, minimum as well as maximum, for different grades are fixed. Further, the Rubber industry, has to pay heavy cess or excise duty, around Rs.300 per tonne for every tonne of rubber purchased, to the Rubber Board, the latter being a statutory body looking after the interest of the rubber plantation industry. However, inspite of paying such heavy duties the Rubber industry has a feeling that it is not deriving any benefits of getting natural rubber at reasonable prices. In short, the industry suffers from high prices and inadequate supply of natural rubber. Secondly, as far as synthetic rubber is concerned, its price is higher than the natural rubber and supply too is inadequate. Same is true in case of carbon blocks, another raw material for Rubber industry.

As far as other raw materials like colours, chemicals, fabrics etc. are concerned, they are available in adequate

18 Sankaran, S. : op.cit., pp.511-512.

19 Mookerjee, K.N. : "Raw Material Shortage in Rubber Industry", in A Profile of Indian Industry, op.cit., pp.247-254.

quantity, though, at times, shortages of some of them are felt.

Due to speedy industrialisation and modernisation of agriculture, the demand for industrial, mechanical and agricultural and other rubber products has been rising. The expansion of industries like textiles, pharmaceuticals, engineering, automobile etc. has created large markets for this industry. Similarly, rubber products are increasingly demanded in services sector also. Hence, expansion of services like railways, aircraft, telephones, navy, etc. has been responsible for extending market for rubber products. Briefly, the industry has been facing large demands within the country and has also an advantage of exporting its commodities. This implies that the industry, given the technology and raw materials etc. could increase its production in accordance with the market demand. This is reflected through the industry's profitability (gross and net both) which has for majority of the period remained at high level. Not only has the industry enjoyed high profits, but it has maintained them over a long period. This is obvious from the coefficient of variation having low value of .159 and .280 for gross and net profit rates respectively. However, our time trend analysis gives no clear-cut trend in the profitability of this industry as the results are statistically non-significant. It can be observed that though the industry reaped very high profits and maintained them at high levels for majority of the period, in spite of the large and increasing demand from all over the country, the rubber industry could not raise its earning power further due to problems of inadequate supplies and high prices of raw materials like natural and synthetic rubber. The trend coefficient for gross and net profit rate assumes values around .010 and -.005 respectively and is statistically found to be non-significant in both cases.

V. CONCLUSION

The fore-going analysis of government policy measures, and other factors lead us to conclude that the private sector manufacturing industries in India are working under an entirely different economic environment than the industries of other developed countries. The government policies of controls like price and distribution or production controls, quotas for raw materials and foreign exchanges, heavy taxes etc. act as hindrances in freely competitive market. Hence, we have not been able to get clear-cut equalising tendency in the profitability structure of manufacturing industries studied here.

Additionally, the priority industries like engineering and chemical industries which were in their infancy on the eve of planning, got full encouragement from government and were given majority of advantages in terms of allocation of scarce resources like raw materials, investment, foreign exchange quota etc. Hence these industries could expand speedily through raising their profitability.

Moreover, basic industries like Iron & Steel and Cement and industries producing essential consumers commodities like Grains & Pulses, Sugar, Cotton Textiles etc. deteriorated in their earning capacity and could not expand speedily due to government controls on price and distribution of the products, as well as due to problems of raw materials, power cuts, old machinery, labour unrest etc.

Further, the agro-based industries experienced large fluctuations in their profitability as they derived the required raw materials from agriculture which itself is dependent on natures vagaries.

Majority of the industries whether agro-based or mineral based or chemical-based, faced the problem of inadequate and costly raw materials and power shortages resulting in raising the cost of production and under-utilisation of the capacity which affected the level of production and profitability of the industry adversely. Similarly majority of the industries suffered from inadequate imports of machinery and raw materials. Further, the speeding up of Trade-Union Movement also affected the working hours and production in many of the industries through means of strikes and lock-outs etc. All these factors created obstacles in their expansion.

In addition to this, old industries like Cotton & Jute Textiles suffered from old techniques of production, ~~and due to~~. The use of worn out and obsolete machinery, affected their productive as well as earning capacity adversely.

Finally, the industrial recession of 1965-67 slackened the demand for industrial products which affected the profitability of majority of the industries adversely.

In short, factors like government policy, availability of raw materials, machinery etc. techniques of production, power shortages, demand for product etc. are some factors which have affected the profitability of different industries in different ways.