AN ECONOMIC ANALYSIS OF MODERN MANUFACTURING STATE ENTERPRISES IN KERALA

By

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Certificate

The thesis entitled "An Economic Analysis of Modern Manufacturing State Enterprises in Kerala" is a bonafide record of the research work done by Miss . Ushadevi . M under my guidance and supervision during 1985 - 95. The thesis has not been previously submitted for any other degree or diploma.

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Decleration by the Candidate.

I declare that the thesis submitted by me is a record of the research work done by me and that it has not previously formed the basis for the award of any degree, Diploma, fellowship or any other similar title

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INTRODUCTION

CHAPTER - I

INTRODUCTION

The post-second World War era is characterirsed by the emergence of large number of countries free from European colonialism in Asia, Africa and North America. The options available with these countries were either to accept the capitalist system or communism or to adopt a middle way encompassing the merits of both: the mixed economy. India was one of the major nations who opted for a mixed economy. Resultantly the public undertakings has come to play an impotant role in India. The important task assigned to it are

(a) laying the foundation of self-reliant industrial growth.

(b) helping to build up a system in which society as a whole controls the vital system and

(c) it must create surplus for further growth.

The objectives of the public undertakings, hence, can be broadly mentioned as economic and social. In pursuance to the Directive Principles and the Industrial Policy Resolutions, undertakings which are basic, public utility or of national importance are earmarked for the public sector.

Though the state enterprises has now become a world wide phenomenon, in the Indian perspective it bears more weight probably because of our new experiment of mixed economy. Since it's existence the public sector in India has made a tremendous rise. The public sector has got a place of pride in our economy. With a vital role thus assigned to the public sector, it is important that Public sector enterprises should flourish and make their due contribution towards the economic progress of the country. It has made a valuable contribution to the industrial modernization of the country, building up vitally important infrastructure for economic growth

and in achieving a degree of import substitution. On the eve of Independence India had a population of 370 million mostly illiterate. It's agriculture and industrial sectors were in primary stages of development and the per capita income was estimated at Rs 200. At this stage it is the public enterprises which has to lay the basis upon which the structure of a dynamic and diversified economy is to arise. Before the commencement of planning in India, activity in the public sector was confined to sectors like Railways, Post, communications, Broadcasting, Irrigation and Power and a few departmental industrial undertakings. Since then, that is after the commencement of five year plans and the declaration of Industrial policy resolutions, public sector covers a vast and varied range of activities. It occupies a dominant position in the basic industries and capital goods industries. Not only that, it has played a vital role in the development of industrially lagging regions suffering from inheritant constraints.

1.1 Statement of the Problem

There are a number of studies relating to the performance of public sector manufacturing enterprises and utilities owned by Central government. The studies on the state sector enterprises owned by the state government are rather limited. After surveying the literature on public sector enterprises including the state enterprises P.Chadhopadhyay observes, " Really speaking, not much is known about them and it will be a good idea if research is initiated in the functioning of the government companies under the control of different states". In recent years some studies have appeared on the utilities owned by the state government. The point of emphasis is that the manufacturing enterprises under state government control remains a relatively darker area.

Probably, one reason for this lacklustere attitude towards state sector enterprises may be due to the attitude and approach towards them. Conceptually, they are treated as synonymous with the central sector enterprises. Although the investments in both the organizations are made out of government funds we cannot overlook important difference between them arising from economic, organizational and environmental factors of the regions. As Hiten Bhaya rightly puts it, "It is natural for every owner to assist his enterprise management in it's external problems and relations when it is beyond it's reach or authority such as licenses, permits quotas, extra financial needs, problems with statutory authorities or with relevant public such as registrar and organized consumers. The state sector enterprises which need more of such assistance get the least from their government. By and large, this is forthcoming in the central sector where it is easier to render such assistance. The point to underline in this concept is that there are inherent problems in treating the state sector enterprises synonymous with central sector enterprises and accepting solutions to the problem in the same framework. The nature of problems the state enterprises face are different. Hence they need to be analyzed separately and the solutions be sought keeping in view the objective conditions prevailing in the given state regions. Such studies are all the more urgent for these states which have made already considerable investments in state sector enterprises are yet where the industrial progress is rather tardy.

Some interesting questions come to surface in the development of state enterprise in Kerala. Has the growth of state sector enterprise been by a process of self generation of surplus and it's reinvestment? The obvious answer is "no". For most of these enterprises have been loss making propositions. The academicians and politicians alike condemn

these tendencies as unfortunate. The lack of financial autonomy is identified as the major factor in loss making but simultaneously, it's impact is felt in other major aspects of performance such as management, marketing, technology, inter industry linkages etc which in turn make the enterprises nonviable. This interrelationship of the problem is very seldom emphasized in the literature on central sector enterprises, not to speak of state sector enterprises.

1.2 Objectives of the Study

The major objective of the present study is to build a general picture of the performance of State Sector Manufacturing Enterprises in Kerala. With this basic objective the study will focus attention on the following questions.

1. What has led to the poor financial performance of state sector enterprises? While pursuing this question we will be analyzing the capital structure of these enterprises and it's implications to the economic viability and financial efficiency of these units. This we feel may be a pointer to the outward dimension of the disorder. The perversity of this pattern may be manifest in other aspects. Therefore we evaluate input transformation efficiency of these units or the physical performance

2. Has the state sector Industry's growth at any stage been hampered by the lack of technological expertise and scientific knowledge?

3. What are the means by which state enterprises have access to new technology? How efficient are these means?

4. What importance does the state place upon new technology? Are technology factors of any relevance to the

development of state enterprises?

5. What are the underlying mechanism by which state sector manufacturing enterprises are becoming sick? Here the emphasis is on identifying the forces and factors that add up to this phenomenon of sickness. Here the emphasis will be more on a case study method.

Initially, the major question of environment for growth of these enterprises will be dealt with in terms of linkages of macro sectors in general and that of the inter industry level in particular. On the basis of conclusions emerging from the study a policy package is suggested to put these enterprises on a healthy footing.

1.3 Methodology and Data Source

By 1991 - 92 there were a total of 104 state enterprises including 8 statutory bodies with an invested capital of Rs 3967.60 crores. Out of these 104 companies, only 50 companies are producing enterprises engaged in industrially productive activities: the rest of them are in public utilities , financing, promotional and trading activities. The heterogenous character of the state enterprises renders a very comprehensive analysis of it's technology patterns an extremely difficult job. We may therefore confine our analysis to mostly technology intensive areas of industrial activity like Chemicals, Electronics, Engineering, Electricals etc. We may proceed with the analysis of the units by forming product clusters. Product clustering of the units will be done among those units with identifiable technological characteristics.

The identifiable clusters with distinct technological characteristics will be analysed in terms of it's

financial and technological performance. This inter alia include an examination of capital structure and technological behavior such as linkages, R&D behavior, diversification, innovation etc and the strategy of planning for technology acquisition etc and following this we may analyse case by case the reasons for the sickness or health of state sector forms by undertaking case studies of a few number of selected enterprises. The selection was on the basis of their performance pattern. The inter firm linkages which may highlight the flow of goods among the enterprises (forward and backward) was captured by identifying the material inputs and purchase groups and also by working out intersectoral linkage pattern.

1.4 Data source

The study of state sector enterprises in Kerala is a largely neglected area in the economic literature. Therefore for a study of this sort, data had been collected from the survey of the concerned units. Secondary sources such as administrative reports, reports of the committee on public undertakings, reports of the bureau of public enterprises etc. were also consulted.

1.5 Limitations of the Study

Since the study makes use of both primary and secondary data, it poses a variety of data problems. The available secondary data may sometimes be either inaccurate or insufficient to establish the problems under considerations. Several data gaps also have crept into the scene making the analysis difficult. But in the absence of satisfactory data alternative, reliance has been made on these data for the purpose of the study.

1.6 Literature Review

A number of studies have already been undertaken in many parts of the world on different aspects of public enterprises. In the book entitled "Public Enterprises" Turvey R (1968) has thrown light on the various aspects and problems of the public sector, besides enumerating the role of public sector. Freedman.W and Garner.J.F. paper entitled 'Government Enterprises- A comparative study (1970) discussed the various types of Government Enterprises and their respective pricing policies'. As far back as in the 1930s and 40s Harold Hotelling (1938) in his paper "The General Welfare in relation to problems of taxation and of railways and utility rates", drew attention to the problem of pricing in public sector, he reached the conclusion that a system of rates and services to ensure the most efficient operation of Public Enterprises should be introduced. E. Mead (1944) expressed the same view in his paper "Prices and output policy of State Enterprises". W. A. Robson (1952) opposed the idea and in his paper "Nationalised industry and Public Ownership" and suggested a full cost pricing approach for public enterprises. A.H.Hanson in his work "Public Enterprises and Economic Development" (1959) view the problem from the angle of the developing countries and he suggested that Public Enterprise pricing should reflect the actual cost and pave the way for a speedier development of a developing economy. Burns and waterhouse in the paper "Budgetary Control and Organisation structure", have studied the effects of Government control on the employees of the firm, apart from the aspect of delegation and centralization of powers. Quinn (1969) in his paper "Technology Transfer by Multinational Corporations" R&D Management , emphasizes the importance of R&D and how R&D laboratories have led to 'cost free' research for multinationals and under such circumstances knowledge and technical know how can be transferred without restriction. Rothman (1976) in his paper "Development and Demise of Naive Optimism about Technology Transfer" also viewed

transfer of technology as a key ingredient to the development of Public sector. Cole Gerald A (1979) provides classification of different types of institutions engaged in research activities which have a direct or indirect bearing on an enterprise. Caoves et al (1980) in his work "The relative efficiency of public and private firms in a competitive environment, the case of Canadian Railways" have conducted a study on the relative efficiency of public and private firms in Canadian railways and reached the conclusion contrary to general opinion of the inefficiency of public enterprises that due to competition from the private companies in the railways, inefficiencies resulting from public ownership were negated. A similar study on efficiency differential between the private and public in Iraq was undertaken by Victor Levy using Hicks neutral index of technology comes to the conclusion that public firms in Iraq are more technologically efficient but less allocationally efficient than private firms.

In India numerous books and pamphlets dealing with various aspects of public enterprises are available. Besides this a large number of reports have been published arising from studies and enquiries by different individuals and groups. Many of these reports have been at the instance of the enterprise themselves, parliamentary committee and other organizations.

N. Das in his book 'Public sector in India' (1955) has devoted one whole chapter to the accountability of public enterprises and explained the need for such accountability as well as the meaning of the term. According to him accountability means that an account should be rendered by public undertakings to some higher authority and if the latter is dissatisfied it can order that steps be taken to put matters right. He opines that public enterprises face a dilemma viz the effort to achieve both business flexibility and public

accountability and concludes that one cannot have the best of both worlds. Mr. Das has discussed about accountability at great length and has quite intelligently underlines the vexed issue connected with the problem. Om Prakash in his book "The Theory and Working of State Corporations" has discussed the problem of 'public accountability' in details and concludes that the utmost criterion to be fulfilled is the responsiveness of public undertakings to the wishes of the people after which only accountability is to be considered.

A fairly competent account of accountability of public enterprises to parliament is given by N.N. Mallya "Public Enterprises in India". Moreover the procedures for placement of demand for grants in parliament in respect of the undertakings coming under individuals ministries and the parliamentary questions ect. are available in Mallya's studies provides a knowledge base to the research coming from disciplines other than Public administration.

Om Prakash (1962) emphasised the need for a profit oriented price policy, for Public enterprises to finance the socialistic industrialisation of India. Pricing was dealt with in the commerce pamphlet titled "Pricing Policies in Public Sector" by G.L. Bansal.

Laxmi Narayan and Satyanarayanan in the research studies (1922) held that an unscientific price policy was one of the reasons for poor performance of Public enterprises.

In 1976, A.C.D.A brought out an important document entitled "Approach to Public Enterprises Policy in Asia on Investment Prices and Return Criteria". It discussed the objective which public enterprise pricing policy should serve in Asian countries. Apart from this a large number of seminars were held covering the whole gamut of public

enterprises. Seminars on "Financial Organisations in Public Enterprises", "Incentives in Public Enterprises" were held under the leadership of V.V. Ramanathan by the institute of Public Enterprises at Hyderabad

V.V. Ramanathan in his research work on this subject "The Control of Public Enterprises in India" (1914) made an excellent study of various aspects of the subject. He stated the nature and purpose of control in detail, he has dealt at great length with the various methods of the accountability of these enterprises.

Srinivasan (1980) has emphasized the need for human resources development program and he formulated an action oriented training program held at Postal Staff College New Delhi.

Laxmi Narayan has completed a brilliant study on 'Efficiency Audit of Public Enterprises in India' (1972). He discussed in length the questions of accountability of these enterprises through audit. D.N Gadhoks' paper 'Parliamentary Control Over Government Expenditure' (1975) also outlines the necessity for accountability.

Quite a few studies have been carried out on the organizational behavior in Public enterprises. Sharma (1973) conducted studies on the relationship between organization and administration. Valsala.S.Kumar (1979) have focussed on the sharp contrast between Public sector and Private sector managers in so far as their salaries are concerned. They reached the conclusion that Private sector managers had higher salaries, when compared to the public sector counterparts.

"The Public Sector in India" - a paper submitted by R. K Hazari and A. N Oza at the seminar held by the

International Economic Association in June 1919 at Kandy, raised some interesting points on financial control and operational questions of Public sector units that should be pursued further.

V.K.Krishnamenon Committee Report published in 1959 by the All India Congress Committee- one of the measures suggested by the report and implemented by the government was the dropping of the word "Private" in the name of some of the private limited companies in the public sector. The undesirability of the secretary of the Ministry being the chairman of public enterprise was also not generally accepted as a principle though not always strictly followed.

A large number of seminar report in the field of Public Enterprises have thrown light on different aspects of the fact and philosophy of public enterprises in this country. Mention may be made of the Reports of the Indian Statistical Institutes Symposium on "Organisation and Management of Public Enterprises" (1959) at Banglure, "Administrative Problems of State Enterprises in India" (1957) by the Indian Institute of Public Administration Seminar at New Delhi, Public Industrial Management in Asia and Far East (1959) by the U.N Seminar at New Delhi and the problems of private and public industrial undertakings (1963) FICCI.

Seminars on financial organisation in Public Enterprise, "Incentives in Public Enterprise", "Labour in Public Enterprise" and "Pricing and Investment in Public Enterprise" were held under the leadership of V.V. Ramanathan by the Institute of Public Enterprises at Hydrabad.

Since Independence, the trends in the research in the field of Public enterprises have been essentially in interpreting the philosophy, aims and accountability of public

sector enterprises in the country in the context of experience in similar fields in other countries. During the first decade after independence the Indian Parliament and the Government were struggling to find a solid ground for establishing Public sector enterprise in different fields of economic activity. The traditional form of Public enterprise, the department form were by then belived to be less flexible and dynamic than other forms and the public corporation was already a tried device found to be suitable for the public sector.

However a large relatively untrodden field continues to exist in this respect for future research. One such area is "The Decision Making Process in Public Sector Enterprises". Excepting a chapter Om Prakash's "Theory and Working of State Corporation with special reference to India" (second edition) not much work has been done in this highly interesting and instructural process of decision making in public enterprises at the levels of top, middle and functional management. The pre-decision analysis, the techniques applied in such analysis, the actual process of selection from alternatives and the factors and forces reckoned within such decision would be a potent area for future research. For instance on the lines of B. R. Williams "Investment Proposals and Decision", application of Individual Management Techniques, such as the Discounted Dash Flow, Interfirm Compensation etc. is another suitable field. On these two topics of interest, analytical exercises have been few. Treatment of discounted cash flow and it's significance in the case of public enterprises has been dealt with in P.Chadhopadhyaya's, "Decisional Phenomena and the Management Accountant" (1970). On the latter topic mention may be made of Chatopadhyaya, "Interfirm Comparison - Scope and Application in Public Enterprises" (1969) and "Interfirm Comparison of Sector Chemical Units" (1971) and P. Chatterjee's "Public Sector Chemical Units". A third area of patent research in this context is the structure and behavior of organization in public

enterprises from the point of view of the behavioral sciences, cost and management, accounting and public administration.

V.V.Ramanathan, in 'The Structure of Public Enterprises in India', the improper use of the company form has been commended upon. The basic characteristic of the corporate form of enterprises, including the public corporation and the company have been dealt with in but a few of the works on the subject.

Of interest in the context of organization of Public enterprises are Laxmi Narayan, 'Problems of Organization and Administration of Public Enterprises', L.S.Lulla 'Corporation Pattern of Nationalized Road Transport Undertakings' and S.S. Khera 'Legal and Organizational Forms of Public Enterprise'. The Public Corporations, a traditional field of adventure in U.K and U.S.A have been the subject matter of some scholarly studies. D.S.Ganguly, 'Public Corporation in a National Economy' (1963) dealt with the growth problems of organization, the governing body, internal management, relationship with Government, Parliamentary control and accountability, financing, industrial relations, pricing policy and efficiency aspects of public corporations in India. D.K.Sinha, 'Working of Public Corporation in India' (1960) also dealt with Public Corporation in a serious win, particularly the background factor and the performance over a period.

On the other hand, the structural functional question affecting the performance of one public corporation were dealt with by P.Chatterjee, "Reorganization of Damodar Vally Corporation" highlighting particularly the structural deficiencies of the corporation in the context of the sharp public focus on the cross polls to which the corporation become subject threatening it's functioning as on body.

In the context of organization of Public Enterprises particularly is that of the adoption of the company form, it is also interesting to study the impact of the recently growing emphasis on the social responsibilities of business and public interest, in particular the idea of socialization without nationalization as emphasized by Georg Goyder in his 'The Responsible Company' and the conceptual aspects of the Modern Corporation by D.L. Mazumdar' Towards a Philosophy of the Modern Corporation by D.L. Mazumdar, 'Towards a Philosophy of the Modern Corporation'.

In the article "Man Power Planning and Public Enterprises" Goplaji stresses the need to increase the operational efficiency and minimise losses in loss making enterprises by effective utilisation, maintenance and development of man power resources. Public enterprises suffer not only due to excessive man power but also due to scarcity of trained personal in critical areas. Gopalji therefore suggested that Public enterprises should be encouraged to formulate and impliment suitable career development schemes in which emphasis should be on phased programme of training and development at different levels linked with definite ladders of promotion. This, it is expected will go a long way in improving the operating efficiency of seven enterprises.

In addition, "Personal Management in Public Enterprise" was the theme of the conference organised by The Indian Commerce Association and the seminar on Industrial relation organised by the Department of Commerce and Business Management, Punjab University, Chandigarh. Among different contribution of papers on this theme are Pareshnath Chattrejee, "Personal Management in Public Enterprises In India" and R.C Metha "Personal Management in Public Sector Undertakings" in Indian Journal of commerce. Three papers by Lallen Prasad are

worthy of notice in this context. "Remuneration Policy of Public Undertakings", "Promotion Policy of Public Undertakings" and "Fringe Benefits in Public Undertakings".

Ajith. M. Banerjee, "Managerial Personal for Public Enterprises", S.K. Das "Worker's Participation in Management of Public Enterprises in the U.K, I.H.Farooqi, "Trade Union and Public Sector" B.N.Astharia, "Industrial Relations in the Public Sector in India" and Iswer Dayal, "Strategy for Industrial Relations in the Public sector" are some of other articles that may be found relevant on various aspects of the problems of personal and labour.

Much work has not been made on the aspects of marketing management and marketing functions of the Public sector enterprises. One of the early works on the subject is P.Prasad, "Organisation of steel sales in U.K, U.S.A and Japan", published by the Hindustan Steel Ltd., Ranchi in 1964. In the area of marketing function reference may be made to the Report of the Banking Commission (1972) which has inquired into different aspects of banking and has made detailed recommendation. The report is indeed a mine of informations on different aspects of the functioning of nationalised banks in retrospect and in prospect and has been commended as such running as it dose into more than 700 pages.

Dr. Ramanathan contributed several papers on the pricing of public enterprises. In his book "The Finances of Public Enterprises" chapter three is devoted to a discussion on pricing, pricing practices relating to Hindustan Cables Ltd., Hindustan Antibiotics, Hindustan Photo Film Manufacture Company Ltd, Indian Airlines, Indian Railways and Port Trusts analyzed by Ramanathan highlighted two important concepts (a) economic prices distinguished from 'policy prices' and (b) the admixture of tax elements in public enterprise

prices. Pricing has been dealt with in the commerce pamphlet, B.H. Bansal "Pricing Policies in Public Sector". Among the analytical articles on public enterprise prices mention may be made of the conceptual exercise by Shyamal Banerjee "Pricing Public Sector Enterprises -Comments on Some Criteria". This paper deals with the question of pricing in public enterprise in general and on the basis of definite criteria that should be taken in to consideration in the context of price fixation. For pricing in the context of individual enterprises reference may be made of G.P.Kesava, "Price Fixation in Public Sector - A Case Study of Insecticides". Dr. Nageshwar Rao and Omji Gupta in their paper "Pricing Policies and Practices in Public Enterprises" have examined the various types of pricing method practiced in the public enterprises in India and found that it was not feasible to work out a set of pricing procedure for the public enterprises operating in the country as a whole as they are engaged in divergent nature of operations.

While examining the personal policy and executive succession in SGES, the problems of continuity of top executives the benefits of longer tenure, the causes of instability, the effect on the enterprise are discussed in the paper "Executive succession and continuity of top executives in Andhra Pradesh State Government Enterprise" by Dr.G.Venkadaswami, Reader, Depatrment of Business Management, Osmania university, Hydrabad. From personal interviews and comments it is understood that the ills of the system of deputationists short tenure of the top executives and frequent changes ect. are leading to the instability of the organisation. Even though the study relates to Andhra Pradesh State Government Enterprises it is an eye opener to the SGDs in the country.

"Project Formulation in Public Enterprises" by Dr.N.P.Srinivasan - Reader in commerce, University of Madras emphasis the fact that for the efficient

functioning of state enterprises project evaluation is undertaken with the sincerity of purpose relagating political interest to the back ground or keeping mainly the economic and social interest in view state enterprises in India accord little impotrance to project formulation.

A quantitative model presented by Barnett R.Rubin in the paper "Financing Gross Capital Formation in Indian Public Sector" shows that, in recovering from the recession of the mid sixties the Indian state changed it's method of moblising resources. There was an earlier ongoing shift of saving into the organised sector especially the public sector with a quickly increasing mobilisation of savings through taxation. Afterwards the Public sector relied increasingly on an expanded, nationalised banking system to mobilise household sector savings. The rising political pressure of population and broader participation prevented the Government from rising or even constant proportion of the new revenues it mobilised mainly through indirect taxes. The use of public sector enterprises as source of patronage politicised management and made them a drag on the public sector finances as a whole.

"Attitude of Managers of Public Enterprises" by S.Ramakanth, Department of Mathematics, Osmania University, Hydrabad is based on the summarised result of a survey conducted by Hari Ghiselli and Ponter (HGP) in the book " Managerial Thinking, An International study". In the paper a comparative study of modern managers across different regions, kinds of organisation etc. was conducted.

Jagdish Bhagavadi in his paper "Monopoly in Public Enterprises" and V.V Ramanadham "The working of the Public sector" give a detailed account on the rate of return on the capital invested in public sector enterprises. Besides this exercise a number of articles have appeared on profitability and

profit planning in the public sector enterprises. For instance D.S Nakra, "Profitability of Hindustan Steel Limited" (May 1967) P.M.Bhandari "Profit Planning in The Public Sector" (April 1967) and M.M. Mehta "Profit Planning and Programming" (1967) may be mentioned.

In the context of analysis of profitability of Public sector enterprises, mention should be made of the Annual Report on the Industrial and Commercial undertakings of the Central Government, issued by the Bureau of Public Enterprise, the audit Report (commercial) and the Reports on the committee on Public Undertakings on Individual Enterprises as also such horizontal studies on Financial Management which throw considerably light on the surplus generation in the public sector units. The paper submitted to the Delhi Seminar of the institute of Public Enterprise on pricing and investment in Public enterprise (1970) incidently cover the question of accumulated Deficits and the determination of unit wise surplus targets in public enterprise. The FICCI study of top 800 companies (1970) gives an inter unit comparison including firms in the private and public sector. This is an objective, scholarly exercise putting forth the different aspects of comparative performance of private and public sector companies.

The financial details including surplus and deficits of the iron and steel industries have been given in the hand book "Statistics for Iron and Steel Industry in India" (1970). In addition a good deal of useful material on the subject is available in the report of the committee on cost of production of steel (chairman Harikrishna Manlal, 1966). This report analyses the factors inhibiting the generation of a desirable rate of surplus, particularly in the public sector iron and steel units vis-a-vis the units in the private sector.

On the subject finding a standard rate

of return on Capital, mention may be made of Pareshnath Chattergee's " Return on Capital : Some problems in finding a standard "B.V.Mehta's "Surplus of Public Enterprise : A rate on concepts", G.S.Bhalla and S.S Mehtha's "Rate of return in Public and Private sector industries in India" (1970) R.Thakar, "Profitability in Public sector Undertakings" (1971) and the study by FICCI Top 300 companies : (1970) particularly chapter IV which gives a comparative account of profitability of Public and Private sector large firms.

Some work on different aspects of capitalization was done by G.S Bhalla, financial administration of Nationalised Industries in UK and India (chapter II to IV) and by V.V.Ramanathan "Investments and capitalisation in Public enterprises" in 1969. In the paper presented by O.K Ghosh to the Seminar on cost and financing of Fertilizer Projects in India gives a fairly intimate account of financing a fertilizar project in public sector, the pattern of investments on different plants under the fertilizer corporation of India and the F.A.C.T. The question of debt-equity ratio of prices and profitability and of working capital have been discussed in this paper.

A useful study of Public relations and annual reports in Public enterprises is Laxmi Narayan, " public Enterprises in India - A study of Public relations and annual reports". The content of disclosure in the annual reports of the Government companies has engaged not much alternation as a matter of serious academic study.

Andand. P. Gupta in his paper "Financing Public Enterprise Investments in India" (Published in Economic and political Weekly Dec-17,1988 Page.2697) Provides a perspective on how Central Public Enterprises plan investments are financed. It reveals that although budgetary continues to be

a major source of financing CPE's plan investments, it's contribution has declined from 53% in 1984 - 85 to 36.8% in 1988 - 89. The paper also looks at the issue of internal resource generation by CPE's and questions the credibility of the seventh plan targets. The paper also shows that with the GOI's budgetary support declining and with internal resources adequate to finance only one-third to two-fifth of their plan investments, the CPE's are increasingly being asked to fund for themselves.

Arun Gosh in his paper "A Glimpse at a Public Sector Enterprise" (Published in Economic and Political weekly Feb. 15, 1992) attempts to show what public enterprises can achieve and how they can help to achieve excellence and economic viability. Hindustan Zinc is taken as an example for his study. It also highlights a basic difference between a responsible Public enterprise and any Private enterprise, including the best of them.

Bagaram Tulpule in his paper " Exit Policy in Public Sector" (Published in Economic and Political weekly Feb. 15,1992, page 319) points out that the exit policy for the public sector bristles with difficulties in implementation and the Sop of NRF is not likely to make the implementations much easier, at least not as far as sick public sector enterprises are concerned.

"Macroeconomic impact of Public sector Enterprises: Some Further Evidence", (Economic and political weekly January 16-23) by R.Nagaraj has raised a few issues, viz, whether the deficits of Public sector Enterprises has increased over the years, whether the financial burden of the Public sector Enterprises on the Government budget increased over the period, Whether the internal resources generation by public sector enterprises in the 80's and if so whether it is on account of increase in administered prices. Nagaraj's study attempted to

discuss the above issues by comparing the growth and trend in fiscal deficit vis-a-vis public sector enterprises during the period 1960 - 61 to 1989 - 90.

S.Mohanan Pilla's study "Macro Economic Impact of Public Sector Enterprises - comment (Economic and Political Weekly vol. XXVIII NO.22 May 29, 1993) examines the ?methodological appropriateness of Nagaraja's study and inferences drawn from it. This study is nevertheless an earnest attempt to capture the magnitude and implications of public sector enterprises' deficit in the budgetary operation.

In the article productivity in "Public Sector, Analysis at Industrial Group Level" (Economical and Political Weekly vol XXVIII, No 48 Von 27, 1993 page M 145) Anita Kumari attempted to analyse productivity trends at the group level of public sector enterprises for II groups of manufacturing industries, heavy engineering goods, medium and light engineering goods, transportation equipment, consumer goods and textiles - for the period 1971-72 to 1987-88

N.N.Mallya in his research paper entitled "Public Enterprises in India - Their control and accountability" (1971) has discussed how parliament exercises control over these enterprises, their merits and demerits.

Om Prakash (1962) emphasised the need for a profit oriented price policy, for public enterprise to finance the socialistic industrialisation of India. Pricing was dealt with in the commerce pamphlet titled "Pricing Policies in Public Sector" by G.L.Bansal.

1.7 Studies in Kerala

When there are a large number of studies

on the working of Public Undertakings in India in general and also case studies, working of public undertakings in kerala is ignored by scholars for detailed analysis despite it's importance in the working of the Kerala economy. Whatever few studies available are concentrated on the two major public utility concerns in Kerala: The Kerala State Road Transport Corporation and The Kerala State Electricity Board. There is practically no studies about the non-public utility public undertakings in Kerala except few papers. Two papers on this regard published are "Efficacy of Public Enterprises in Kerala" by Dr.D.P.Nair in the book "Performance of Kearla Since Independence" edited by M.A.Oomen (1979) and another 'Working of Public Enterprises in Kerala' in Lok Udyog (Aug 1980). The scope of the paper was limited to a balance sheet analysis of the Kerala State Industrial Enterprises and it's subsidiaries and comparing their performance with enterprises in the private sector providing identical goods. In order to get a clear picture it is necessary to include all the undertakings which function on commercial principles. Besides, other important aspects like employment, production, management, marketing management, inventory management etc. should be analysed for getting a correct and meaningful picture.

Vijaya Anandakrishnan (1980) conducted a study regarding business performance of K.S.F.E Ltd. (Vijaya Anandakrishnan, "Corporate Financial Analysis-An evaluation of business performance of K.S.F.E Ltd(M.B.A Dessertation, Cochin University (1980) N.Ramachandran (1971) conducted a study of one of the schemes of the company namely 'Bharatha' and it's impact on society and it's financial viability (N.Ramachandran, "A Pilot Study on Bharahta a financial product of K.S.F.E Ltd (MBA Dessertation, Cochin University 1979) Usha E.S (1981) conducted a study on the Hire Purchase Unit of K.S.F.E and the market for fridges through the scheme. (Usha E.S, A study on market for fridges under Hire Purchase in Kerala, with special reference to

K.S.F.E Ltd (MBA Dissertation, Cochin University 1981)

"Kerala's Industrial Backwardness- Exploration of Alternative Hypothesis", By K.K. Subramaniam and P.MohanPillai makes an attempt to identify the weak links in the production structure in Kerala within an interregional frame work of analysis . It also throws light on the role of public sector to remove this industrial stagnation "An enquiry in to the Historical roots of Industrial backwardness of Kerala - A study of Travancore region" by T.M Thomas Issac and P.K.Michal Tharakan provides certain insight into the historical roots of Industrial Backwardness of Kerala. T.M Thomas Issac " Some Aspects of Industrialisation in Kerala" published in Malayalam in "Adyapaka Lokam" Special November 1983 and P.K.Michale Tharakan; "Industrialisation and Modernisation of Kerala" in Kesavan Veliathat and N.P Chekkuty (Ed). Modernisation of Kerala; some Historical Issues, Calicut University Union, Calicut, 1982 also throws light on Kerala's Industrial Backwardness and the need for Government institution to develop industrial sector.

There are a number of studies relating to the performance of public sector manufacturing enterprises and utilities owned by Central Government. The studies on the state sector enterprises owned by the State government are rather limited. After surveying the literature on Public sector enterprises including the state enterprises. P.Chadopadhayay observes " Really speaking, not much is known about them and it will be a good idea if research is initiated in the functioning of the government companies under the control of different states.

1.8 Structure of The Thesis

The text of the thesis is discussed in nine chapters which are outlined as follows :-

The thesis opens with an introduction in which the problem to be investigated is briefly stated. It also covers objectives, scope and limitations of the study. A review of earlier works in this field and a brief outline of the methodology used for the study are also given in this chapter.

A review of General picture of Public enterprises with special emphasis on Public Enterprises in India is presented in chapter two. Growth of public enterprises, meaning, different forms of public enterprises, the role of public enterprises etc. are discussed. Growth of public enterprises in India,it's need and objectives and also it's performance over the last years have been given in this chapter.

Chapter three deals with Kerala's Industrial backwardness and the evolution of state sector enterprises. Here we are throwing light on Kerala's position on the Industrial map of India, low level of industrial employment, low rate of growth found out by inter state comparison and came to the conclusion that Industrial development in Kerala has not gone in hand in hand with all India pattern in different sets of time period. Then we go to enquire the historical roots of Industrial Backwardness of Kerala and come to the point that Government has to demonstrate the feasibility of profitability in modern industries by improving the operational efficiency of the state sector and Joint sector enterprises. Then we discuss about the process of evolution of state enterprises in Kerala.

Chapter four gives a brief account of state enterprises in kerala. Nature, growth , characteristics and objectives of state enterprises in Kerala, classification of state enterprises in Kerala, and a brief account of it's performance and also the sickness of Public enterprises in general and state enterprises in Kerala in particular have been discussed.

This chapter also gives a snap short picture of nature and characteristics of manufacturing state enterprises in Kerala and concludes the section by giving a relative picture of the size of these enterprises vis-a-vis other major sectors in the state.

As a Preliminary step to explore the loss making phenomenon, in chapter five we present some aspects of financial management of state sector enterprises in general and that of Manufacturing state enterprises in particular. Financial management deals with the three major decision making area viz the investment decision, financing decision and the dividend decision.In this section we will be discussing mostly the second ie the implication of financing decision with regard to capital structure of state sector enterprises.

In chapter six we are examining the Performance of manufacturing state sector enterprises in Kerala as reflected in the productivity measures. As an index of over all efficiency we are constructing a measure of total factor productivity. Total factor productivity by Kendrick method and partial factor productivity have been measured for various state sector groups overtime. Annual variation in factor productivities, intergroup variations in factor productivities, correlation between wage share in value added and labour productivity for both the profit making and loss making enterprises in the sample taken are also explained in this chapter.

Interrelationship between financial performance and productivity performance is outlined in chapter seven. This interrelationship is examined by means of rank correlation coefficient. Here we are also explaining causes for low productivity, benefits from external linkages and also the consequences of managerial inefficiency reflected in the inventory management.

Chapter eight is a case study. It analyse case by case the reason for the sickness or health of state sector firms by undertaking case studies of a few number of selected enterprises. The selection was on the basis of their performance pattern. Two belonging to the category of very bad performance (in terms of productivity both partial and total) and one moderate and the other having satisfactory performance.

This chapter also examine some macro issues which has some bearing on the development of state sector enterprises. The interfirm linkages which may highlight the flow of goods among the enterprises (forward and backward) was captured by identifying the material inputs and purchase groups and also by working out intersectoral linkage patterns. In this chapter we also discuss in brief the procurement policy of government.

The last chapter gives a summary of findings and the conclusions thereafter.

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PUBLIC SECTOR ENTERPRISES IN GENERAL

Ushadevi M. "An economic analysis of modern manufacturing state enterprises in Kerala " Thesis. Department of Economics, Dr. John Matthai Centre , University of Calicut, 1995

PUBLIC SECTOR ENTERPRISES IN GENERAL

CHAPTER - II

PUBLIC SECTOR ENTERPRISES IN GENERAL

Public enterprises are not unfamiliar in the economic life of any country. Except for the temporary period of the ascendancy of the theory of laissez-fair in the latter part of the 18th century, history is full of instances of government participation in economic activities. In fact,the mercantalist period of economic history, which preceded the rise of the liberal philosophy of laissez-fair, was full of such instances.[1] State enterprises have come into existence in all countries, whether capitalist or socialist, developed or undeveloped. Even in a country like United States where the state undertaking is looked upon with an eye of suspicion and considered a threat to individual liberties, there is an outstanding example of government enterprise that is T.V.A (TENESEE VALLEY AUTHORITY). In U.S.S.R it dominates the whole country. The U.S.S.R constitution states "the economic foundation of the U.S.S.R is the socialist system of the economy and the socialist ownership of the instruments and means of production, firmly established as a result of liquidation of the capitalist system of the economy, the abolition of the private ownership of the instruments and means of production and the

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[1] Herman Finer - State Activity Before Adams Smith, Public Administration. Vol - X 1932. page.36.

elimination of the exploitation of man by man"[2]. Government enterprise covers a large part of French economy. The labour Government in Britain during the period 49-50 maintained Transport Iron and Steel Bank of England Electricity etc. Similarly Under Developed Economies like India, Pakistan, Burma, Srilanka, Thailand, Korea etc have so many examples of state undertaking. A comparative analysis of state participation in developed and under developed countries can be seen in the following table (2.1).

In the early parts of the 19th century state confined its activity merely to the maintenance of law and order inside the country and its protection from foreign aggression. The role of the state was nearly to keep the ring around the industry, to let man compete and fight and only to ensure that they did not break the rule, specially the freely negotiated contractual obligation[3]. Events like the World War and the Great-Depression of the 1930's bringing in problem of rapid increase in population, shortage of food stuff, growth of the monopolies, exploitation of labour etc weighed too heavily to

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[2] Log Udyog May 1985 (Quoted from Economics and Management P.G vol-1 by Vc.L.Gupta S.Publishers or Distributors, New Delhi 1984). page.16.

[3] Dr.B.N.Tirpathi, "The Concept of Public Enterprises ".Lok Udyog Vol-XV No 12 (March 1982). page.18.

Table - 2.1

State participation in Major Non-Communist Economy

Countries	post %	Tele Communication %	Electricity %	Gas %	Oil Production %	Railways %	Air lines %	Motor Industries %	Steel %	Coal %	Ship Building %
Australia	100	100	100	100	PO	100	95	PO	PO	PO	NA
Austria	100	100	100	100	100	100	100	100	100	100	NA
Belgium	100	100	25	25	NA	100	100	PO	50	PO	PO
Brazil	100	100	100	100	100	100	15	PO	75	100	PO
Britain	100	100	100	100	25	100	75	50	75	100	100
Canada	100	25	100	PO	PO	75	75	PO	PO	PO	PO
France	100	100	100	100	NA	100	75	50	75	100	PO
W-Germeny	100	100	75	50	25	100	100	25	PO	50	25
Hollend	100	100	75	75	NA	100	75	50	25	NA	PO
India	100	100	100	100	100	100	100	PO	75	100	100
Italy	100	100	75	100	NA	100	100	25	75	NA	25
Japan	100	100	PO	PO	NA	75	25	PO	PO	PO	PO
Mexico	100	100	100	100	100	100	50	25	25	100	100
S -Korea	100	100	75	PO	NA	100	PO	PO	75	25	PO
Spain	100	50	PO	75	NA	100	100	PO	50	50	75
Sweeden	100	100	50	100	NA	100	50	PO	75	NA	PO
Switserland	100	100	100	100	NA	100	25	PO	PO	NA	NA
U.S.A	100	PO	25	PO	PO	25	PO	PO	PO	PO	PO

Note : NA Not Available, PO Private Owned

Source : Economist (1978) Vol. 269 No 700 London 30 Dec 1978

be ignored by the state. Thus state interference in economic life became inevitable. The theory still prevalent a century ago that the state activity be limited to certain supervising function mainly in the field of military, police, justice and foreign affairs has given way to the recognition that intervention of the state in those fields is legitimate and often an indispensable function of modern Government[4].

In the 1950's and 1960's there was a broad consensus that Government must intervene directly and play an activist roll in development. Early development economics showed unquestioning faith in the ability of the state to correct market failure and imperfection, and effectively direct the process of economic development. In fact even the World Bank, a capitalist institution with a development machine was reluctant to lend countries that did not have a Government sponsored "Development Plan". By the beginning of the 1980's there was a sharp swing away from the opinion particularly in the industrial countries and international financial institutions.

The literature of recent years is full of Neo-classical account of the "public failures" of regulatory interventionist states. Governments are beginning to be seen as the main bottlenecks in development, getting Governments out of business of development has become an important element in the policy advice given by international institution, economic experts and donor agencies. A contributory factor has been the increasing economic difficulties of many developing countries, and the failure of their Government to take timely corrective actions, partly in response to international pressure and partly in response to their own experience.

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[4] Hanson A.H, Public Enterprises and Economic Development (190) page.183

It was this perceived pendular swings in behavior-on the role of the Government in the development process that led Albert Hisschman to speculate "whether our society are in some way predisposed towards oscillation between periods of intensive pre-occupation with public issue and almost total concentration on individual and private welfare goods[5]".

Over the last few decades of public sector experiences countries have gone through many phases-phases of faith, hope, experimentation,disappointment, disillusionment, but hardly one of consolidation or introspection. At no point of time in such introspection more important than at the present when the public sector appears to be at crossroads when the publicly acclaimed faith in public sector is eroded by a gnawing doubt, when a ragging feeling persist that the carpet is imperceptibly but slowly being pulled out from under the feet of the public sector,when the acceptance gained by it in the 60's and 70's is being challenged again by a strident criticism[6].

Despite the raging controversy over the issue of the role of public sector in the development process of a country, public enterprises are indispensable in areas such as providing certain public utilities and its role as a model employer. Without state participation no economic task of national importance can be fulfilled. Today the tentacles of public sector has spread far, it ranges from the generation of

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[5] Hischman. 1982 page.3 op.cit.

[6] Hiten Bhaya "Politics or- Colossus with feet of play?" Economic and political weekly: Review of Management. (may 1983) M50-64. page.13.

power, irrigation to finance and banking etc[7].

2.1 MEANING OF PUBLIC ENTERPRISES

One difficulty in any public enterprises discussion is about the meaning of the term public enterprise itself. The economist (London) was correct when it stated that "public enterprises is a neat label for a very untidy concept" .

That part of the economy which function on the basis of state owned property forms the public sector of the economy. A United Nations expert Fouad Sherif, has defined it as "the aggregate of institutions and Government operations within the frame work of an overall balance of public income and expenditures"[8].

The term public enterprise is generally used to denote an undertaking in which Government has a larger interest of ownership and management. A very comprehensive definition has been given in a recent United Nations publications. It is referred to as "economic undertaking, especially industrial, agricultural or commercial concerns which are owned (wholly or in part) and conclude by the state. It includes those 'mixed enterprises' which are controlled by the state. A mixed enterprise is one jointly owned by the state and by private persons. If the state contribute over half of its capital, it automatically has a controlling interest. In some cases the state even has control over a mixed enterprise for

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[7] Dr B.N. Thripathi, page.168, op.cit.

[8] V. Kolsov "The Public Sector an effective means of Development", page 11

which it provides less than half of its capital"[9].

Prof. A.H.Hanson used the term 'Public Enterprises' in his book in a more restricted and familiar sense, to mean state ownership and operational industrial, agricultural, financial and commercial undertakings[10].

Sri.S.S.Khera. has used the term Public Enterprise to mean "the industrial, commercial and economic activities carried out by the Central Government or by a State Government and in each case either solely or in association with private enterprise so long it is managed by a self contained management"[11].

Sri.N.N.Mallya, has defined public enterprises as autonomous or semiautonomous corporations and companies established, owned and controlled by the state and engaged in industrial and commercial activities[12].

Dr.Laxmi Narayan defines Public Enterprise as an activity of the Government whether Central, State or Local, involving manufacture or production of goods including agriculture or making available a service for a price; such activity being managed either directly, that is departmentally or through an autonomous body with the Government

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[9] Lok Udyog Vol XII. No 9, Dec 79, page.17.

[10] A.H. Hanson, "Public Enterprises and Economic Development" (1960), page.185.

[11] Khera S.S. "Management and Control in Public Enterprises", Page.10.

[12] Mallya N.N. "Public Enterprises in India", Page.1.

having a majority ownership that is more than 50% of equity[13].

According to Encyclopedia Britannica the term Public Enterprise - " usually refers to Government ownership and active operation of agencies engaged in supplying the public with goods and services which alternatively be supplied by private enterprise operations, the same as private are financed wholly or largely by receipts from the sale of goods and services"[14]. An Indian research project set up under the auspices of the International Development Research Centre of Canada has defined Public Enterprise as a productive entity or organisation which is owned and controlled by public authorities and whose output is marketed.

From a close perusal of the above definitions it appears that emphasis has been given on 'ownership' 'nature of activities' and forms of 'organisations' in identifying an enterprise as a Public Enterprise. In a very simple way we can define a public enterprise as a business activity owned and operated by the Government or its agency. Under this definition the word Government is used to mean Central Government or State government or local authorities or any two or more taken together.

2.2 FORMS OF ORGANISATION OF PUBLIC ENTERPRISES

There are mainly three forms of organisation found for the successful conduct of an enterprise. These are (a) Government Department (Departmental Undertaking), (b) Government Company (Registered as Joint Stock Company),

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[13] Narayan Laxmi, op.cit, Page.3.

[14] Encyclopedia Britannica of Vol.18 (1975). Page.731.

(c) Statutory Corporation (Public Corporation).

2.2.1 THE DEPARTMENT FORM OF ORGANISATION :-

Government Department is the traditional form of public enterprise, "The Government Department is a strictly hierarchical institution at whose head is a minister answerable to cabinet and to parliament for its activities.The administration of the department is naturally large in the hands of the senior civil servants and financial control rests with the treasury"[15]. In this form the employees are largely civil servants who are subject to the laws, rules and regulations governing the civil services. The department as a whole or its units are financed by annual appropriation and its income is deposited with the Government treasury.

The departmental enterprises is found to be inadequate as its rule do not give too much autonomy. It is subject to executive and legislative interventions. These rules hinter the smooth working of the enterprise. For example in the field of transport, it was observed that "general trend is away from departmental undertakings and towards the increased use of semi-autonomous or independent agencies, public corporations and Government companies"[16].

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[15] Huge clegg. "Industrial Democracy and Nationalisation". Page.38.

[16] "Institution Building For Transport Development in Developing Countries" (United Nations Publication. No.E 71. VII.1). Page.20.

2.2.2 GOVERNMENT COMPANY :-

Joint Stock Company of Government Company is established under the company act of law of Nations in which the Government of public enterprises hold at least 51% of the equity capital. A joint Stock Company which mainly exists for profit-making business is not subject to the regular control or rules governing normal Government activities. However the Government exercises control indirectly through the directors which are appointed by the Government. But the Government company does its business under the provision of a company law. Though it does not enjoy sovereign immunity of the state, it is free as a legal person.

The Government company form enterprise has certain weakness. First, It does not ensure the public accountability of the enterprise or ministerial accountability to parliament. Second, in most cases employees of government company are not civil servants. A company determines the conditions and other aspects of service of its employees without being restricted by civil service rules and regulations.

2.2.3 PUBLIC CORPORATIONS :-

A public corporation has come to be regarded as the best form carrying out the functions of public enterprise. It is a corporate body created by special legislation with clearly defined powers and functions and jurisdictions over a particular type of industrial or commercial activity. It is administered by a board of directors appointed by the Government

to which the body is answerable[17]. It is an autonomous form of organization "clothed with the power of Government, but possessed with flexibility and initiative of private enterprise".

Public Corporation may be defined "as an autonomous commercial organization established at Government insistence outside the frame work of Government Departments and company legislation[18]".

A Public Corporation comes into existence as a result of decision taken by legislature of the country which is embodied in the form of an Act. The Act creating the public Corporations also prescribes its aim and objects, power, duties, in the form of management and its relationship to established departments and ministries. It is a corporate entity for legal purposes and can sue and be sued; enter into contracts and acquire property in its name. The corporations doing business in their own name have been generally given greater freedom in making contracts and acquiring and disposing of property than ordinary Government Departments.

W.A.Roshson states "The Public Corporation is in my judgement by far the best organ so far devised in this or any other country for administering nationalized industries or undertakings. Allowing for some teething troubles which are still not entirely cured, the Public

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[17] Prabhu Nath Singh - "Some Aspects of Managerial and Economic Problems of Public Enterprises in India". Page.22.

[18] "Organisation, Management and Supervisor of Public Enterprises in Developing Countries" (United Nations Publication, Sales No. E. 74 11. H 4). Page.63.

Corporation which we have evolved is an outstanding contribution to public administration in a new and vitally important sphere"[19]. However, Glent Worth says that the laws governing public corporations are currently inadequate and are undervalued as a tool in achieving the right balance between control and autonomy[20].

2.3 ROLE OF PUBLIC ENTERPRISES

The role of public enterprises has come to be regarded as vitally important in recent times only. In the past public enterprises was primarily confined to public activities. It was only in recent times, particularly after the first World War that the public enterprises has come to be regarded as an important vehicle to achieve socio-economic objectives. It revealed dynamism first during the economic crisis of the 30's and after the second World War its role has considerably increased, particularly in under developed countries. It has revealed greater power in the hands of the state, and has really played significant role in controlling and guiding the socio-economic destinies of the nations.

Public enterprise play different roles depending upon the motivation and the directive force which move the state into action with regard to state initiative and participation in the economic field.

In the case of communist countries the state resorts to total nationalization. Here the entire economic

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[19] W.A. Rohson, "Nationalized Industry and Public Ownership" Page.493.

[20] Glent Worth, op.cit, page.205.

apparatus is owned by the state and therefore subjected to highly centralised control.

In mixed economy, public and private enterprise works side by side in perfect Co-ordination like the two limbs of a living organism. Public enterprises under mixed economy helps the state in supplementing the economic activities of the private sector and also allows exploration of new avenues. On the other hand, it prompts private enterprises to work efficiently and effectively. Enough pressure is also put upon to fit in the national plan and Co-operate in the achievement.

The need for public enterprises arise out of the fundamental duty of the state to work for the welfare of the people. Whenever and whatever conditions the existing and available agencies fail to advance the welfare as the society as a whole, it is the obligation of the state to take active steps for this purpose. Public enterprises increase the economic welfare of the people by adjusting production to social needs.

Public enterprises may be used as means for the equitable distribution of social product, which forms the very basis of the general welfare of the society. It is also considered necessary to remove maldistribution of wealth and the tendency for its concentration in few hands which is the direct result of capitalist production.

Free availability of the result of the continuous research to all is essentially needed, if production is to proceed on efficient and economic lines, and also serve best the public welfare, instead of individual good. This could be possible under public enterprise only.

In a welfare state it is considered obligatory upon the Government to remove monopolies in the hands

of private individuals and to remove excessive competition, avoid duplication, elimination of uneconomic units on the one hand and to bring about unified control and rationalized management.

Public enterprise is an integral part of economic development. There is a rational relationship between the rate of economic development and the choice of public sector only when the rate proposed under development plans is higher than what is possible under free and unplanned play of economic forces.

Public enterprise can constitute an institutional medium of raising recourse of the plans. This may happen in two ways. (a) The profits normally earned by the producers are diverted to public exchequer. The cost of raising capital for public enterprises is lower than the market rates of interest on whose basis profit is earned in private enterprise. Besides public enterprises receive other facilities Such as cheap power, cheap raw material etc from the Government. All the profits should be mobilized for financing of the plan for further development. (b) The prices may be employed as a weapon in lieu of taxation and high revenues earned for the public exchequer; in other words, high profit may be planned deliberately.

The public sector thus occupies a pivotal role in our economic strategy. From the beginning it has been recognized that public sector would necessary have to venture into difficult and capital intensive fields of basic industry which the private sector had shunned for long. This has been done boldly and sometimes in the teeth of opposition. The sinews of our strength, though modest by the standards of the western countries lie largely in our public enterprise.

2.4 Growth of Public Sector Enterprises (Historical Evolution)

The concept of Public Enterprises as an instrument of the state for the fulfillment of economic aspirations of the people is not new to our country. It is not so well known that even in the Mouryan period and later during the Mughal rule, the state operated a number of industries not only for earning revenue but also for meeting the needs of the people and providing employment but this concept has received wider importance in recent times. The state today, far from being merely the passive observer of the economic process, which once it was, has emerged as an active participant taking upon itself the role of protector, of controller, of guardian of the citizen and of entrepreneur. For the sake of convenience, the whole process of development of state interest in the economy may be studied by dividing the period into four phases.

2.4.1 THE FIRST PHASE : 1830-1913 :-

This phase of state interest in industries may be called the period of state intervention in public utilities, in general, and the beginning of indirect assistance to industries,in particular. In this period the National Instruments Factory was founded in 1830 for the maintenance and repair of instruments required by the survey of India. For the first time under the provisions of Act XVII of 1837 the Government established a public post. In 1851 the first telegraph line was completed and in 1870 Department of Geological Survey was setup which led to the discovery of many coal fields and there by the growth of industries.

2.4.2 THE SECOND PHASE : 1934-1938 :-

During this period Government became more involved in the Industrial development. The first World-War and the growth of economic nationalism, both resulted in a change of economic outlook. The central Government created the central department of industries in 1921. Under the Government of India act 1935, wide powers were given to the provincial Governments in respect of industries. This provincial autonomy gave a great fillip to industrial development of the country as a whole.

2.4.3 THE THIRD PHASE : 1939-1950 :-

The strategy dangers created by the second World-War necessitated the central Government to liberalize its industrial policy. In 1940 the Hindustan Aircraft Ltd and the Board of Industrial and Scientific Research was established. In April 6, 1945 the Government of India announced its Industrial Policy which declared that vigorous and sustained effort is necessary for industrial expansion. On 6th April 1948 the national Government passed the first Industrial Policy Resolution. This Resolution stated that the state must play a progressively active role in the development of industries.

The Industrial Policy Resolution emphasis is that " by improvement in the economic conditions of the country postulates an increase in national wealth ..... A dynamic national policy must, therefor be directed to a continuous increase in production by all possible means, side by side with measure to secure its equilibrium distribution"[21]. This was to be attained through a mixed economy consisting of the

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[21] L.N. Gupta : "A Study in to the Profitability of Government Companies". page.84.

public and private sectors in which the state was to play a progressively active role in the industrial development.

2.4.4. THE FOURTH PHASE : 1951-1981 :-

The first five year plan began in 1951 and it held that the state will have to play a crucial role in the industrial development of the country. The state took initiative on many directions to set up industrial enterprises. On 30th April 1956 the Government announced a new resolution which stated that the adoption of the social pattern of society and the need for planned rapid development require that all industries of basic and strategic importance, or in the nature of public utility services should be in the public sector. Other industries which are essential and require investments on a scale which only the state in present circumstances, could provide have also to be in the public sector. The state has therefore to assume direct responsibility for the future development of industry over a wider area. After considering all aspects of the problem, in consultations with the planning commission, the Government of India decided to classify industries into three categories, having regard to the part which the state would play in each of them.

In the first category will be industries, the future development of which will be the exclusive responsibility of the state. Industries in this category have been listed in schedule A of this resolution. The second category will consist of industries, which will be progressively state owned and in which state will, therefore, generally take the initiative in establishing undertakings but in which private enterprise will also be expected to supplement the effort of the state. Industries in the second category will be those listed in schedule B. The third category will include all the remaining industries, and the future development will be left to the

initiative and enterprise of the private sector. All the five year plans of India also laid greater emphasis on the development of the industries in the public sector.

The philosophy enshrined in the Indian Constitution and Industrial Policy Resolution is the foundation for the growth of public sector enterprises.

2.5 NEEDS AND OBJECTIVES OF STATE ENTERPRISES IN INDIA

These days, state is no more a passive observer of the economics process, it has emerged as an active participant; taking upon itself the role of a protector, controller, and guardian of the citizen and the entrepreneur. Prof.A.H.Hanson has commented "Public Enterprises without a plan can achieve something, but a plan without public enterprises is likely to remain on paper only"[22]. In the words of Jawahar Lal Nehru, " The public sector represents a dynamic urge to go towards the socialistic society which we are seeking to build up. The public sector has to grow; it has a strategic importance ".

The needs and objectives of state enterprises in India may be summarised as under :

1. Rapid economic development of the country;
2. Construction of Infra-structure for balanced development;
3. Check on the concentration of wealth and economic power;
4. Import substitution and export promotion;
5. Proper development and expansion of private sector;
6. Creation of enormous employment opportunities;
7. Arrangement of adequate finance for development

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[22] Hanson A.H. "Public Enterprises and Economic Development" (1960) Page.183.

programs and nation building activities;

8. Acquisition of sick units and their better management;
9. Balanced regional development and correcting regional imbalances;
10. Social control on long term capital with the help of public financial institutions.

2.6 PERFORMANCE OF PUBLIC SECTOR ENTERPRISES IN INDIA

The public sector occupies a pivotal role in India's strategy for planned economic growth. Placing the public sector on the road to dynamic and self generating growth is a must for Indian economic progress. Government is attaching an added significance to the expansion of public sector mainly for removing the regional imbalance and for strengthening and safe guarding the overall interest of the society. In developing countries like India public enterprises is considered to be a powerful engine of economic development and an instrument of attaining the widely cherished goal of a socialist which are seeking to build up. It is these enterprises that have brought the country in the world map of industrialised nations. It is for there enterprises that the country is today rated as the third among the most technologically developed and scientifically well off nations in the world.

Prior to 1947 the coverage of public sector was not wide. During that time India's public sector included Railways, Post and Telegraph and Port Trusts, the Ordinance and Air Craft factories and a few state managed undertakings like the Government salt, factories, quinine factories etc.

After the independence the role of public Enterprises have increased manifold. The number of public

units in India with the massive capital investment has increased significantly after planning commenced. The central investment in public sector undertakings has increased from Rs.29 crores. In 1951 to Rs.50,341 crores in 1985-86. The number of undertakings has also increased from just 5 in 1951 to 225 enterprises in 1986. The public sector in India has considerably grown in area and amount invested during the last two and half decades as is envisaged from the Table 2.2. The investment is in the form of equity capital and long term loan.

The growth of the public sector in India has been phenomenal since planning started. At the commencement of the five year plan there were only 5 public enterprises with a total investment of Rs.29 crores. But during the period 1950-51 to 1991-92 the number of public undertakings has increased from 5 to 246 and the amount invested has swelled up from a negligible figure of Rs.29 crores to Rs.1,35,879 crores. In each five year plan the number of enterprises showed a rising trend and at the commencement of the 7th plan we are having more than 215 public sector companies. The Government owns some of these enterprises by wholly subscribing to their capital or by acquiring central out management by holding over 51% of the share capital. These enterprises comprise a large variety of manufacturing undertakings producing basic goods like steel, fertilizers, chemicals, mining, electrical goods,machine tools, pharmaceuticals, and refining mining and metallurgy, coal, newsprint heavy electricals, electronics etc and non-manufacturing activities like industrial finance, Life Insurance etc. In short they cover all industries and services of basic and strategic importance.

Table 2.2

Growth of Public Enterprises in India

Number of Enterprises and Investment

YEAR	NO OF UNITS	TOTAL INVESTMENT (Rs Crores)
1950	5	29
1955	21	81
1960	48	953
1968	85	3,902
1973	122	6,237
1977	174	13,389
1980	186	18,225
1981	185	21,102
1982	205	24,914
1983	209	30,038
1984	214	35,394
1985	221	42,791
1986	225	50,341
1988	229	62,267
1990	244	86,543
1992	246	1,35,879

Source: Govt. of India Public Enterprises Survey 1982-83. Vol.1

The important object of setting up public enterprises in India has been to correct regional imbalances in the economy and to develop the backward regions. During the period 1966-1975 an investment of the order of Rs.2400 crores has been made in the economically backward regions in such states as Himachal Pradesh, Assam, Bihar, Orissa, Madhya Padesh, Rajastan and Uttar Pradesh. Table 2.3 explains the investment in public sector industries in the different states.

Public enterprises are expected to contribute to public sector plans and provide resources for further development and expansion. The Government seeks to augment its resources for economic development by obtaining surplus from public enterprise. Details of contribution in each plans have been given in Table 2.4

Central Public Enterprise's plan investments account for nearly 3/5th of the total cross domestic capital formation (gdcf) by Indian Public Enterprises.(Table 2.5). Of the central public enterprise's plan investments, non-financial non departmental CPES account for the largest share (nearly three-fourths) followed by departmental CPE'S (nearly one-fifth) and financial and non-departmental CPE'S (about one twentieth). CPE'S have depended on 3 broad sources for financing their plan investments: internal resources, budgetary support and extra budgetary resources.

Table 2.3

INVESTMENT IN PUBLIC SECTOR ENTERPRISES IN STATES ON 31-03-1975	
STATES	Rs. in crores
Andhra Pradesh	269.0
Assam	198.5
Bihar	1671.8
Gujarat	301.3
Haryana	19.4
Himachal Pradesh	0.9
Karnataka	186.8
Kerala	202.2
Madhya Pradesh	837.6
Maharashtra	306.4
Orissa	577.0
Punjab	77.5
Rajasthan	160.2
Tamil Nadu	384.5
Uttar Pradesh	256.5
West Bengal	785.3
Jammu & Kashmir	6.9

Sources Annual report on the working of the industrial and commercial undertakings of the central Govt. 1974-75 P.175.

Table-2.4

Contribution of the Public Enterprises to Public Sector Plans

Rs.crores

PLANS	TARGETS (1)	ACTUAL (2)	COL (2) AS % PLAN FINANCE (3)
First Plan (1951-56)	170(a)	115(a)	. .
Second Plan (1956-61)	150(a)	167(a)	. .
Third Plan (1961-66)	550	435	5.1
Annual Plan (1966-69)	587	409	6.2
Forth Plan (1969-74)	2,209	1,135	7.0
Fifth Plan (1974-79)	849(b)	2,583	6.6
Sixth Plan (1980-85)	9,935(c)	6,645	6.8
Seventh Plan (1985-90)	35,485(d)	-	19.7(e)

Public enterprises included are railways, post and telegraphs IDC, ARC, RE, DVC, Central Power Generation Units and other financial institutions excluding the Reserve Bank of India.

(a). Includes the contribution of railways only. Data for other public sector enterprises are not separately available.

(b). From fifth plan onwards, these data are on gross basis, hence not comparable with the earlier plans. 1974 -75 figures at current prices, other years data at 75-76 prices.

(c). At 1979-80 prices.

(d). At 1984-85 prices.

(e). Target as percentage of plan finance.

Source: (Table-2.4) Planning commission (1). Basic statistics relating to the Indian Economy 1950 - 1951 to 1975 - 1976. (2). 5th year plan 1974 - 1979 October 1976.(3).6th five year plan (80-85) (4). Reserve Bank of India report on Currency and Finance Vol.II statistical statement 1983 - 1984 and draft 7th five year plan.

Public sector has played a significant role in the growth of countries gross product and savings. In terms of GDP Public sector units formed around 1/4th of total GDP in 1987-1988 while they accounted for one half of the gross domestic capital formation. Its share in GDP (at current prices) went up from 19.8% in 1980-1981 to 27.8% in 1987-1988. In 1980-1981 the public sector share in gross domestic savings was 16.2% and it declined to 9.3% in 1987-1988, with fluctuations during the period in between. Public sectors share in the domestic product and savings in India during 1980-1981 to 1987-1988 has been shown in the Table 2.6

The most important contribution of the Public Sector to the economy has been in respect of capital formation. The share of the sector in total gross domestic capital formation (at Current Prices) rose steadily from around 48% in 1980-81 to nearly half in 1987-88.

Another noteworthy feature of Public Sector has been the taking over a number of industrially sick units from private sector with a view to protecting the employees from unemployment. The number of employees working in enterprises which have been taken over by the Government now constitute nearly 48% of the total number of employees working in central enterprises. As a result of rehabilitation and modernisation of some of the erstwhile sick units additional employment has also been generated.

Table - 2.5

Contribution of Central Public Enterprises (CPEs) in Terms of Plan Investments & Resource Mobilisation (Rs. billions at current Prices)

Year	Total Public Sector Plan Out-lay	Central Plan Outlay	CPE's Plan Investments	CPE's Internal Resources	Total Gross Domestic Capital Formation in Public Enterprises	CPE's Plan Investment as Percent of Central plan Outlay	CPE's Internal Resources as percent of Central plan out-lay	CPE's plan investment as percent of Total Gross Domestic Capital Formation in Public Enterprises.
1983-84	150.23	70.49	51.68**	13.62*	108.99	73.3	19.3	47.4
1984-85	183.73	91.97	70.50**	22.28*	141.41*	76.6	24.2	49.9
1985-86	217.25	112.85	88.51**	33.55	162.49	78.4	29.7	54.5
1986-87	253.14	136.44	101.85(RE)	42.06	173.29	74.6	30.8	58.8
1987-88	300.33	166.50	122.64(RE)	48.18	209.07	73.7	28.9	58.7
1988-89	330.60	191.15	147.49(RE)	55.46(RE)	240.76	77.2	29.0	61.3
1989-90	402.16	236.25(RE)	166.25(RE)	53.68(RE)	268.89**	70.4	22.7	61.8
1990-91	446.98	257.10(RE)	178.47(RE)	57.00(RE)	300.31	69.4	22.2	59.4

Note: * Total public sector plan outlay consists of investments outlay is targeted at 85.7% of the total 8th plan public sector outlay. Break up of ann outlays into investment outlays is not available.

** Author's estimate/ projection.

Source: Economics and Political weekly December 17, 1990.

Table-2.6

Public sector's share in the Domestic Product and Savings at Current prices (Rs Crores)

YEAR	Gross Domestic Product	Gross Domestic Savings
1980-81	19.8	16.2
1981-82	20.9	21.5
1982-83	22.8	22.6
1983-84	22.7	16.5
1984-85	23.6	14.5
1985-86	24.8	15.6
1986-87	26.4	12.6
1987-88	27.2	9.3

Source: Indian data base. The economy VOL I H.L.Chandhok and the policy group

In its role as a "model employer" the public sector through its various enterprise and departmental organisation account for a bulk of employment generated in the country. In all 18.5 million persons were employed in the public sector in 1989 as against 7.4 million in organised industry in private sector. (that is establishments employing 10 or more persons).

The estimated employment in public and private sector is shown in (Table.2.7). It is clear from the table that from the period 1970 - 71 to 1988 - 89 the percentage share of public sector in employment has gone appreciably

Table - 2.7

Estimated Employment in Public & Private Sector (000's)

Year	Public Sector				Private Sector		
	Central	State	Local Bodies	Total	Large Units	Small Units	Total
1970-71	27.71	41.52	18.78	88.04 (56.55)	60.35	7.26	67.61 (43.45)
1975-76	30.47	48.97	19.85	99.29 (59.13)	61.13	7.13	68.62 (40.87)
1980-81	31.95	56.76	20.37	109.08 (59.59)	66.00	7.95	73.95 (40.41)
1985-86	33.46	64.73	21.90	120.09 (61.09)	65.47	8.25	73.72 (38.10)
1986-87	33.50	66.66	22.14	122.03 (62.42)	65.32	8.31	73.63 (37.58)
1987-88	33.81	67.81	22.11	123.73 (62.60)	65.44	8.47	73.91 (37.40)
1988-89	33.89	68.90	22.38	125.17 (62.62)	66.06	8.63	74.69 (37.38)

Source : Directorate General Employment and Training, Ministry of Labour.

Note :
1. Quasi, Govt. establishments in both central & state Govt. are not included
2. Figures in brackets indicate percentage to grand total

The achievements of public enterprises in India have been satisfactory as regards the diversification of field, and generation of resources. They have contributed a lot to the economic development of the country by increasing national income, by earning considerable foreign exchange, by developing basic and capital goods industries and helping the rehabilitation of sick mills and also the operation on economic lines.

However the working of public enterprises in India has come for sharp criticism. It has been pointed out that the public sector has primarily been a losing concern, resulting in heavy losses to the exchequer. The future of public sector which at one time appeared to be bright and assuring has today come down a big question mark. Danger signals are flashing around it and thick clouds of confused thinking are developing within the public sector in Government circles and among political leaders. The futuristic observation made some years ago that the continuing good record of the central Government public undertakings for several years in succession 1972-92 onwards should be regarded as breakthrough to brighter days has lost its credibility. The working results of public undertakings have come as a surprise. Profit and loss summary of central public undertakings during the period 1975-1976 to 1989-1990 (see Table-2.8) reveals the fact that the public sector in Indian economy is indeed a maligned one. There are about 30 Central public sector units spread far and wide over the whole spectrum of industries which have been incurring losses continuously for the last 10 years. List of these enterprises are shown in Annexure 1 in terms of profit, the top 10 enterprises accounted for 77.2% of the total profit earned by 110 enterprises during the year 1989-90. From the (table-2.9) it emerges that Oil & Natural gas Commission holds top position (Rs.1,607 crore) with a percentage of 53.3. Oil India has got second place (Rs.195.75 crore) with a figure of 6.5%, Indian Oil Corporation was accounted third position (Rs.144.04 crore) with a figure of

4.8%, Bharat Heavy Electricals ranks fourth place (Rs. 75.04 crores) with a percentage of 2.5, Neyveli Lignite Corporation had fifth place (Rs.62.97 crores) with a figure of 2.1%, Central Coal Fields holds sixth position (Rs.69.83), with a percentage of 2.0, State Trading Corporation of India has got seventh place (Rs.59.83 crores), with a figure of 2.0%, Air India has eighth place (Rs.57.39 crores) with a percentage of 1.9, Rashtriya Chemicals Fertilisers ranks ninth place (Rs.50.05 percentage crores) with a figure of 1.6%, Indian Air lines holds tenth place (Rs.46.35 crores) with a percentage of 1.5. The total profit earned by 110 enterprises during 1989-90 was rupees 3,017.62 crores where as the top ten enterprises earned pretax profit of rupees 2,361.67 crores and percentage to total pretax profit earned by profit making enterprises was 77.2%, the other 100 enterprises earned profit of rupees 655.96 crore with a figure of 22.8 percent.

From the table (2.10) it can be seen that the top ten loss making enterprises accounted for 65.20 percent of the total loss incurred by 91 enterprises during 1989-90. Among the top ten loss making enterprises Steel Authority of India holds top position (214.53 crores) with a percentage of 14 and Bharat Aluminiun Company holds the tenth place(Rs 37.94 crores) with a figure of 2.5 percentage. The total loss incurred by 91 enterprises during 1989-90 was 1,533 crore where as the top ten loss making enterprises showed a loss of 1,000.32 crore and a percentage total by loss making enterprises was 65.2 percentage, For remaining 81 enterprises incurred loss of R.532.83 crore with a figure of 34.8%.

Table - 2.8

Central Public Sector - Fifteen - Year Profitability Profile 1975 - 76 to 1989 - 90 (Rs. in Millions)

Year	No. of Enterprises	Capital Employed (working capital)	Gross Margin (Surplus before Depreciation, Interest & Tax)	Depreciation & DRE	Gross Profit	Interest	Pre-tax Profit (5-6) after setting off losses of loss making units	Percentage of Gross Margin to Capital Employed	Percentage of Gross Profit to Capital Employed
1975-76	125	32810	3136.0	1750.00	1386.00	1240.00	146.00	9.50	4.20
1976-77	149	36060	3441.5	1990.00	1451.50	1253.90	197.60	9.60	4.00
1977-78	155	40890	3880.9	2190.00	1690.90	1467.80	223.10	9.60	4.10
1978-79	159	47570	4897.4	2470.00	2427.40	1620.00	807.40	10.30	5.10
1979-80	169	52710	5924.4	2588.50	3335.90	1849.10	1486.80	11.20	6.30
1980-81	168	66540	8639.7	3047.60	5592.10	2467.30	3124.80	13.00	8.40
1981-82	188	90060.	10138.5	3453.90	6684.60	3628.10	3056.50	11.30	7.40
1982-83	193	110570	14903.2	4627.10	10276.10	6068.60	4207.50	13.50	9.30
1983-84	201	120656	14891.6	5744.90	9146.70	7551.30	1595.40	12.30	7.60
1984-85	209	139690	17658.2	6945.90	10712.30	8861.80	1850.50	12.60	7.70
1985-86	215	161820	20546.6	8255.00	12291.60	10040.30	2251.30	12.70	7.60
1986-87	220	182070	24008.9	9830.60	14178.30	13991.50	186.80	13.20	7.80
1987-88	229	219350	40121.6	13577.90	26543.70	16297.10	10246.60	18.30	12.10
1988-89	234	265900	51893.6	17202.90	34690.70	19273.00	15453.70	19.50	13.10
1989-90	244	298960	57745.7	22053.60	35692.10	20846.50	14845.60	19.30	11.90

Source : (Table-2.8) Public Emterprises Survey for the respective years - Quoted from "Facts for you" A monthly on Economic Affair Feb 1, 1990.

Table-2.9

Top ten Profit making Enterprises in India (1989-90).

SL. No	Name of Enterprises	Rs. in Crores	% to total
1.	Oil & Natural gas commission	1,607.66	53.3
2.	Oil India	197.95	6.5
3.	Indian Oil Corporation	144.04	4.8
4.	Bharat Heavy Electricals Co.	75.04	2.5
5.	Neyveli Lignate Corp.	62.97	2.1
6.	Central Coal Fields	69.83	2.0
7.	State Trading Corporation of India	59.83	2.0
8.	Air India	57.39	1.9
9.	Rashtriya Chemical & Fertilisers	50.05	1.6
10.	Indian Air lines	46.35	1.5
	Total for above top 10 enterprises	2,361.76	77.2
	Total for other 100 profit making enterprises	655.96	22.8
	Total for 110 profit making enterprises	3,017.62	100.0

Source : Financial Express, New Delhi, June 15 1989. page.5

Table-2.10

Top ten Loss Making Enterprises (1989-90)

Sl.No	Name of Enterprises	Rs. in crores	% of Total
1.	Steel Authority of India	214.33	14.0
2.	Bharath Cooking Coil	191.15	12.5
3.	Eastern Coal fields	127.88	8.3
4.	Delhi Transport Corporation	101.12	6.6
5.	Fertilisers Corp. of India	83.16	5.4
6.	Hindustan Fertilisers Corp.	72.40	4.7
7.	Kuderemukhe Iron ore Co.	69.69	4.5
8.	Heavy Engineering Corp.	51.90	3.4
9.	Shopping Corp of India	50.55	3.3
10	Bharat Aluminium Co.	37.94	2.5
	Total for above 10 enterprises	1000.32	65.20
	Total loss of other 81 enterprises	532.83	34.80
	Total loss incurred by 91 loss making enterprises	1,533.15	100.00

Source : Yojana September 16-30-1989.

From the forgoing pages we can conclude that the performance of Public sector Undertakings during the last two decades has been unsatisfactory. Social and economic returns have been low and in many cases huge losses have been incurred, output is far below the capacity and cost are high. Delay in construction, cost escalation in construction projects have led to over capitalisation. But the outlook for the coming decade of public sector undertaking is quiet satisfactory in the sense that the growth in industrial field will be accelerated due to fresh allocation of resources in the field of power generation and distribution, transport, infra-structural development and cost production and other core and basic sectors of our industrial economy. This will be further helped by a sustained effort by the management personal of the enterprises to improve the method of working and taking appropriate economic decisions as and when they are called for. The need of the day is to take care of every unit of man, machine, material and money of the sector to a maximum profit extent. This step could go a long way in achieving the better results. Better working condition to the labour force of this sector is of vital importance. The labour force should be motivated in such a way that they should start feeling as their own concern as a part and parcel of their life as Japanees rightly did realise that labour is as important as profit. This could lead to maximum efficiency, productivity and production which is the dream of every economy and India is no exception to it.

KERALA'S INDUSTRLAL BACKWARDNESS AND THE PROCESS OF EVOLUTION OF STATE SECTOR ENTERPRISES

Ushadevi M. “An economic analysis of modern manufacturing state enterprises in Kerala ” Thesis. Department of Economics, Dr. John Matthai Centre , University of Calicut, 1995

KERALA'S INDUSTRIAL BACKWARDNESS AND THE PROCESS OF EVOLUTION OF STATE SECTOR ENTERPRISES

CHAPTER III

KERALA'S INDUSTRIAL BACKWARDNESS AND THE PROCESS OF EVOLUTION OF STATE SECTOR ENTERPRISES

Kerala occupies a predominant place among the states in India because of her achievements in the fields of education, health, public distribution of essential food items and a radical land reform which abolished tenancy. The state was formed in 1956, following the reorganisation of states in linguistic basis, lies between 8^0 15 and 12^0 45 N latitude and 74^0 50 and 77^0 30 E longtitude. With the boundaries touching the states of Karnataka in the North and that of Tamilnadu in the East and South east. This many splendoured state with its characteristics geographical features natural boundaries and economic growth possibilities has made certain calculated efforts to transform its traditional agrarian economy into an industrial one and develop it through planned industrialisation. The 14 districts of state namely Cannanore, Calicut, Malappuram, Kasargode, Wayanad, Palghat, Trichur, Eranakulam, Idukki, Pattanamthitta, Kottayam, Alleppy, Quilon and Trivandrum each endowed with its own natural advantage and special industrial opportunities will provide the necessaries for many modern industries to grow.

Kerala holds several unique facilities which make it eminently suited for the location of a variety of industries covering over a broad spectrum of products. In terms of availability of industrial infrastructure and other facilities such as surplus hydro electric power, skilled,intelligent and desciplined labour, transport and communication and raw materials, Kerala offers immense possibilities for industrial promotion. But lack of entrepreneurial class locally has been a

critical deterrent to the effective exploitation of these possibilities.

Although Industrial development holds the key to the economic progress of Kerala the pace of growth of the industrial sector of the state has however been quite slow considering the potentialities as well as requirements of the state.

The relative industrial backwardness of Kerala is a problem of wide concern among scholars as well as administrators and political activists in the state. The contribution of industrial sector to the state domestic product (SDP) has remained below the national average. Further the share of industrial sector in the state's workforce has always been significantly higher than its share in the SDP underlying the backward nature of the industries[1].

In order to stimulate and sustain the growth process industrial expansion is very necessary, since agricultural sector alone cannot be expected to provide the growth dynamism. But the fact is that Kerala is an industrially backward economy. As a proportion of national total, Kerala's manufacturing sector even today accounts for a share below its population base. To get a clear picture of Kerala's position of the industrial map of India, a few salient indicators relating to ASI factory sector in 1981 has been examined. With just above Rs.2,090 Crores Worth of output from its factories numbering about Rs.3,050 Kerala accounts for only 3.4% of the national industrial output from factories and ranks 10th among Indian states. In terms of value added, Kerala occupies the same low

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[1] Center for Development Studies, Poverty, Unemployment and Development Policy, A case study of selected areas with reference to Kerala. United Nations, New York, 1975, page.79-81.

position with an income of Rs.390 crores which accounts for only 3.3% of the value added by manufacture in the factory sector at all India level.In terms of industrial employment Kerala's position is not better. In terms of levels of industrial development as reflected in percapita value, Kerala remained below average in the 60's so also today.

In terms of employment generation Kerala's performance appears far below the national average for the entire period. In general, the growth in employment has been much below the growth rate in value added in the Indian factory system. In the period of slow growth rate in value added the growth rate in employment has also been markedly slower. These facets appear pronounced in Kearla. Not only has the growth rate in factory employment been low but also has been on the steady decline relative to all India level. (see Table-3.1)

Kerala's factory sector recorded significantly higher aggregate growth rate during mid 60s and early 70s (1965-1975) when the country as whole recovered (1975-1985) Kerale recorded a growth rate much below the national average. Also the rate of growth of aggregate output showed a slow down in Kerala. The steady decline in growth rate in successive periods implies that Kerala has been suffering from industrial stagnation since 1970's.

When we compare the rate of growth in the value added contribution by manufacture in Kerale and all India we can see that Kerala recorded an annual growth rate of 11.2% (at current prices between 1960-1961 and 1970-1971 where as the corresponding figure for the country was 13.5% (see table 3.2).

In the period since then until 1980 -81, the relative growth rate in Kerala has been much lower 9.6 percent as against 14.2 percent for the country. As a proportion of national total, Kerala's Manufacturing sector even today accounts for a share below it's population base. In terms of percapita, the performance looks better, the credit for which goes to a slower rate of population growth rather than to improvement in industrial investment and growth.

Table - 3.1

Annual Compound Growth Rates of Industrial Employment and value added in factory Sector

Periods	Employment		Value Added *	
	Kerala	All India	Kerala	All India
1961 - 69	3.20	3.86	10.81	5.70
1969 - 1978/79	2.30	4.08	2.12	6.07
1961 - 1978/79	2.72	3.97	6.12	5.89
1961 - 1978/79**	3.18 (0.79)	3.94 (0.98)	6.07 (0.84)	5.56

* Value-added at Constant price (1961 price)

** Trend Growth Rate : figures in parenthesis values of R^2 at 1 percent significant level

Source : ASI data Calculation

Table - 3.2

Income Generated by Manufacture Sector : Kerala and All India

(at current price)

	Value added Manufacturing Sector		Percapita value added by manufacturing sector		
	Kerala Rs. Crores 1	All India Rs. Crores 2	Kerala Rs.Crores 3	All India Rs. Crores 4	Col -1 as Percent Col -2
1	1960 - 61	53.8	1856.0	31.8	2.9
2	1970 - 71	156.3	4619.0	73.2	3.4
3	1980 - 81	557.2	17366.0	259.0	3.2
4	Annual rate of Change (percent) between 1960-61 and 1970-71	11.2	13.5	8.7	7.1
5	Annual rate of change (percent) between 1970-71 and 1980-81	9.6	14.2	11.8	11.9

Source : CSO, National Income Data as reproduced in CMIE

In order to get a clear picture of Kerala's position on the industrial map of India, a few salient indicators can be examined. With just above Rs.2,090 crores worth of out put from its factories numbering about 3,050, Kerala accounts for only 3.4% of the national industrial output from factories and ranks tenth among Indian states. In terms of value added, Kerala occupies the same low position with an income of Rs.390 crores, which accounts only 3.3% of the value added by manufacture in the factory sector at all India level. In terms of industrial employment also Kerala's position is no better. All indicators, including investment in fixed capital, show that Kerala has a low position as compared to its population base in the country.

The inter state comparison reveals the stagnancy in the share of value added (see table-3.3). Maharashtra, West Bengal, Gujarath and Tamilnadu which together accounted for more than one half of the nations industrial income in 1960s continues to do so even today. Neither has there been any perceptible fall in their relative contribution nor significant improvement made in the contribution by other states to the national industrial income over the last three decades. States which have shown signs towards levelling up are very few in number (example Karnataka, Hariyana and Punjab) and are those, which stood above the national average in the sixties. As for kerala, the achievement made in laying down an industrial base commensurate with its population base, so far as the factory data indicate, has been poor. In terms of levels of industrial development as reflected in percapita value, Kerala remained below the national average in the sixties so also today.

It appears that industrial development in Kerala has not gone hand in hand with all-India pattern in different sets of time-period. Strangely when the country as a whole stagnated in industrial growth Kerala prospered where as,

Table - 3.3

Inter - State Desparity in Levels of Industrialisation

State	Share in Popula-tion in 1981 (1)	Share in Value added in Factory Sector					
		1960-61		1970-71		1980-81	
		Percent (2)	Rank (3)	Percent (4)	Rank (5)	Percent (6)	Rank (7)
Andhra Predesh	7.8	3.1	8	4.0	8	4.90	8
Assam	2.9	3.0	9	1.4	14	1.07	15
Bihar	10.2	6.5	5	5.5	7	4.20	9
Gugarat	5.0	10.5	3	9.1	3	9.50	4
Hariyana				2.2	12	2.90	12
Karnataka	5.4	3.2	7	5.7	6	5.10	6
Kerala	3.7	2.7	11	2.9	10	3.30	10
Madhya Predesh	7.6	2.4	12	3.6	9	5.00	7
Maharashtra	9.2	26.7	1	26.8	1	25.00	1
Orrisa	3.9	0.9	14	1.9	15	1.70	14
Punjab	2.5*	3.0*	10*	2.3	11	3.20	11
Rajastan	5.0	1.0	13	2.1	13	2.80	13
Tamil Nadu	7.1	7.9	4	9.8	4	10.30	3
Utter Predesh	16.2	6.3	6	6.6	5	6.30	5
West Bangal	8.0	20.5	2	13.6	2	11.50	2

Source : Based on ASI data reproduced in Basic Statistics Relating to the Indian Economy, CMIE, Bombay

* Punjab including Hariyana

it showed signs of slow down when the country as a whole was recovering. The asymmetry is clearly seen in the growth rate of factory out put at constant prices during different growth phases of India's industrialisation (see table-3.4). For instances, Kerala's factory sector (ASI Senses) recorded significantly higher aggregate growth rate during mid sixties and early seventies (1965-75) when the country as a whole was in a period of industrial recession. Contrarily, When industrial growth in the country as a whole recovered (1975-85) Kerala recorded a growth rate much below the national average. Also the rate of growth in the aggregate out put showed a steady slow-down in Kerala. The steady decline in growth rates in successive period implies that Kerala has been suffering from industrial stagnation since 1970's.

3.1 Roots of industrial backwardness of kerala

It was widely believed that high wage cost is responsible for the retarded industrial development of kerala. But empirical evidence shows that industrial backwardness of kerala should be related to the heavy concentration of agro-based and processing industries with weak inter industry linkages and low growth potential industrial structure. It results in a process of cumulative causation that tends to keep the economy industrially backward[2]. Enquiry into the historical root of industrial backwardness in Kerala is undertaken with reference to the Travancore region of kerala which constituted a separate princely state under the British. Travancore region had exhibited remarkable industrial dynamism during the last decade of colonial rule and ranked top among the princely states in

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[2] K.K Subrahmaniam and P.Mohanan Pillai "Kerala's Industrial Backwardness, Exploration of Alternative Hypothesis" Economic & Political Weekly, Vol XXI, No 14, April 5, 1986. page.18.

Table - 3.4

Compound Growth rate in Industrial output at constant price [(9161) (Percentage)]

1965 - 1975	1960 - 65		1965 -69		1969 - 74/75		1974 /75 - 1979/80		1965 - 74/75		Share in Total Output 1960	
	K	AI	K	AI	K	AI	K	AI	K	AI	K	AI
Food Products	7.0	4.0	4.0	3.0	10.0	(-)1.0	1.0	7.0	2.0	00	31.0	20.0
Beverages etc.	-	21.0	-	13.0	-	24.0	-	(-)4.0	-	19.0	-	3.0
Tobacco Products	-	5.0	-	5.0	-	(-)7.0	-	2.0	-	4.0	-	3.0
Cotton Textiles	9.0	6.0	7.0	3.0	10.0	5.0	6.0	4.0	9.0	4.0	8.0	20.0
Wool, Silk etc.	-	46.0	-	8.0	-	4.0	8.0	12.0	-	6.0	-	1.0
Jute Textiles	-	7.0	-	(-)7.0	-	(-)4.0	-	8.0	-	(-)6.0	-	5.0
Textile Products	(-)4.0	14.0	(-)10.0	1.0	0.0	8.0	8.0	5.0	(-)5.0	5.0	12.0	1.0
Wood Products	6.0	14.0	3.0	(-)1.0	7.0	(-)2.0	(-)5.0	2.0	5.0	(-)2.0	3.0	1.0
Paper Producs	54.0	11.0	10.0	9.0	5.0	3.0	(-)1.0	4.0	8.0	5.0	2.0	4.0
Leather Products	-	13.0	-	12.0	-	9.0	-	7.0	-	10.0	-	1.0
Rubbre Products	18.0	10.0	15.0	8.0	21.0	4.0	3.0	4.0	18.0	6.0	3.0	1.0
Petrol Products	-	11.0	-	24.0	-	10.0	-	17.0	-	15.0	-	2.0
Chemical Products	8.0	15.0	12.0	11.0	7.0	9.0	4.0	10.0	9.0	11.0	19.0	8.0
Non-metalic	-	10.0	(-)1.0	5.0	3.0	(-)1.0	11.0	8.0	1.0	2.0	4.0	4.0
Metal & Alloys	-	14.0	(-)6.0	3.0	15.0	1.0	27.0	9.0	5.0	2.0	-	9.0
Metal Productss	9.0	16.0	15.0	0.0	4.0	3.0	5.0	2.0	9.0	2.0	1.0	2.0
Non-Elc.Ma - hionary	25.0	24.0	9.0	9.0	5.0	7.0	6.0	6.0	7.0	8.0	1.0	3.0
Electrical	8.0	20.0	8.0	10.0	(-)10.0	8.0	11.0	10.0	(-)2.0	9.0	5.0	3.0
Transport Equip-ment	10.0	12.0	11.0	3.0	(-)19.0	3.0	61.0	5.0	(-)7.0	3.0	14.0	8.0
Others	5.0	24.0	59.0	9.0	16.0	13.0	21.0	7.0	33.0	11.0	12.0	4.0
All Industries	8.0	11.0	16.0	6.0	10.0	5.0	3.0	7.0	12.0	5.0	100.0	100.0

K = Kerala, AI = All India

Source : ASI Data Computation (Courtesy : Thirthankar Roy Centre for development studies)

industrial developments at the time of integration with the Indian union. However the decade that followed was equally remarkable for the stagnation of industrial development in the region. It failed to partake in the general bouncy of the Indian economy during the first two five year plan periods. Infact the share of the industrial sector in the SDP of Kerala declined during this period. This discontinuity in the industrial development accentuated the distortions in the industrial structure and contributed significantly in rendering kerala as a relatively industrially backward region.

Another main cause for industrial backwardness of kerala was that it lost many major revenue yielding avenues for which there was adequate compensation from the central government[3]. Consequently the intention of the state to establish "an inter-linked system of a large, medium, small scale co-operative and home units in the modern sector to make optimum use of natural and man power resources to generate employment and income[4]" could not be effectively carried out.

This may be due to the paucity of resources on the one hand and heavy commitment of government expenditure to other social overheads such as health and education on the other. State government was also saddled with another major

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[3] T.M. Issac and P.K. Michael Tharakan, "An Enquiry into the Historical Roots of Industrial Backwardness of Kerala-A study of Travancore Regions". Working paper No 215. Centre for Development Studies, Trivandrum. page.21.

[4] The Statement of Policy of Government of Kerala with regard to the development of industries issued in 1960 and Industrial Policy Statement issued by Government in 1967 and 1983, Government of Kerala.

responsibility of rehabilitating the traditional industrious like coir, cashew, handloom, textiles, fisheries, minerals, handicrafts etc. The point of emphasis is that the resource constraints did not facilitate an accelerated investment in the state sector. The industrial structure emerged since independence was too lop sided to ensure inter sectoral linkages and agglomeration economies for the over all industrial progress[5].

One reason for the relatively slow development of large and medium scale industries is perhaps the lack of entrepreneurs interested in their development. Kerala, it would seem, is still at the state of capitalist development and projects which promise easy as well as quick money, and even speculative enterprises, seem to have considerable appeal to those who have reasonable amounts of capital. Where the process started earlier as in Gujarat and even parts of south India, a type of entrepreneur, interested in genuine industrial expansion that yield quick returns only over a period of time, has slowly been emerging particularly in recent years. But there is no clear evidence of yet of growth of such entrepreneurship in Kerala except in the fringes. This appears to be less due to the lack of necessary ability than to the existence of other seemingly more attractive alternatives and also, no doubt, the lack of capital itself in the region on the scale required. The responsibility of the government in taking an entrepreneurial role and establishing large and medium scale industries which would lead the way for more rapid development of small scale industries is therefore correspondingly greater[6].

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[5] K.K. Subramanian and P. Mohanan Pillai op.cit. page.23.

[6] K.N. Raj : Approach to the planning of Kerala's Economy" in Omchery N.N. Pillai (cd) "planning for, Prosperity in Kerala", The Delhi Malayali Association, New Delhi, 1960, page.42.

The death of investment funds drew the indigenous capitalist away from the industrial path and looked for more attractive alternatives like investment in the agricultural sector itself. The boom in plantation cultivation especially rubber as well as the withdrawal of European capital from Plantation sector, which change political situation of the post independence period, new avenues of investment in the commercial agricultural sector opened up for indigenous capitalists. Rubber plantation sector absorbed considerable investment funds of the indigenous entrepreneur, especially from syrian christian community of Travancore region. The area under rubber in Travancore region increased from 95,832 acres in 1933-34 to 1,60,760 acres in 1958[7]. Not only was the extension in the plantation area being undertaken but the entrepreneurs were also making considerable investment in foreign companies. More than 75% of capital invested in rubber companies and large scale proprietory partnership concerns in India was estimated to be Indian owned in 1955[8]. Similarly independence also brought greater opportunities for investment in trade. Given the above situation, the responsibility of the state in the initiating program for the industrial developments assumes added importance. It is all the more so, given the role state intervention played in promoting industrial growth in the forties. During the first year plan the scheme for industrial development were limited to an expansion of the production capacity of the ceramic factory[9]. Though the plan allocation for the industry increased from 2% to

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[7] The Statistics of Travancore 1109 ME, GOT, Trivandrum, 1935 page.132. and Quality Bulletins of Statistics, Department of Statistics, Govt.of Kerala, Trivandrum 1960.

[8] Report of Plantation Enquiry Commission 1956 part III, Rubber, GOI Delhi, 1956, page.17.

[9] Second Five Year Plan, Government of Kerala, Trivandrum 1958, page.31.2.

7.9% during the second five year plan, there was no significant progress in modern industries during the second plan period because of the emphasis given to traditional industries[10].

Various factors contributed to this new situation First was the financial constraints in state government arising from the integration of Travancore with Indian Union[11]. The state government lost the elastic customs and excise revenue sources which were substituted by a inelastic block grant for a period of five years. On the other hand, the state government continued to bear the burden of high welfare costs and administration. The expenditure on food subsidies during the food crisis in the immediate post independence period was another added burden. Their finance commission recited the plea for special consideration for the export oriented state of Kerala, similar to the special grants given to the North Indian states of Kerala, in lieu of the tariff on Jute

At the same time the State Government lacked the sufficient political will to mobilise the necessary resources from within the states. On the one hand, there was the administrative chaos created by the integration Of Travancore with Indian Union, then with the state of Cochin and finally in 1957 with Malabar to form the state of Kerala. On the other hand the period was also marked by the severe instability and conflict and frequent changes of ministries in the political sphere. The inadequate political pressure was largely responsible for the

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[10] Third Five Year Plan, Policy and Programme Government of Kerala, Trivandrum, 1961, page.15.

[11] Report of the Administration of Travancore for the year 1122 ME, Trivandrum 1947, see also P.C. Peter, "Some Industrial Problems with Special Reference to Travancore Cochin". The Popular Book Bombay 1975. page.16.

descrimination of the region by the central government. The plan out lay of rupees 30.3 crores in the fist five year plan and 87 crores in the second five year plan works out to be nearly half the all India per capita plan expenditure. In the first five year period there was no central public sector investment in Kerala. During the second plan period it was limited to the establishment of D.D.T factory with an out lay of 76 lack rupees or 0.1% of total central public sector investment. The absence of strong political lobbying group from the state due to its political instability must have also contributed to relative neglect of the region by the Central Government during the immediate post independence period.

3.2 State Intervention and the Development of Modern Industries

From around the mid thirties there was a perceptible change in the attitude of the Government towards industrialisation. The earlier Laissez-Fair Policy gave way to a policy of determined intervention to foster and hasten the development of industries. The main elements of new policy may be summarised as follows:-

a) The first was the encouragement given to private initiative to start new industries by giving concessional credit facilities, land concession, subsidised supply of fire wood, electricity and such other infrastructural facilities. The most remarkable achievement of this period was the Pallivasal Hydro Electric Scheme in which cumulative rate of investment in 1946-47 stood, at rupees 430.50 lakhs. Government also undertook commercial transport and financed railway development

b) The second element in the strategy of industrialisation was direct government investment in those sectors were sufficient private initiative was not forth coming. Thus in 1946-47 the Government had considerable investment in State Transport

(Rs.12.79 lakhs) Clay Refining and Porcelain Factory (Rs.27.52 lakhs) Vanchi Clay and Mining and Refining (Rs.1.97 lakhs) and chemicals Travancore Limited (Rs.4.00 lakhs) and so on.

c) Thirdly the government took active interest in ensuring market for the products of new industries. In the case of Government industry , whose foreign market closed at the out break of war, it would have come to a total stand still but for the active initiative taken by the Government to get Government goods accepted for war requirements of tents wall bags etc[12].

d) Integral to the policy of industrialisation was the attempt to create what the authorities considered as healthy industrial relations. This meant an apoliticised trade union movement and institutionalised collective bargaining arrangements. An explicit enunciation of this by the authorities was necessitated because of the rapid spread of radicalism among the working class, especially in the Alleppy industrial belt[13]. The legal frame work for this new perspective was provided by the various labour legislative enactments[14]. The Factories Act, Trade Union Act and Trade Dispute Act were enacted in the background of the explosive labour unrest in Alleppy in 1938.

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[12] "Administration Report of the Department of the Industries 1116 ME", in Development Department No. D.Dis. 1209/92(ERC) Trivandrum, E.L. Polland Report of the Travancore Coir Mats and Mattings Manufactures Association for the year 1940-41. Alleppey 1941, page.9 and the speech of K.C.Karunakaran in Proceedings of the Sree Mulam Assembly dated 21-07-1940, Trivandrum, 1941.

[13] T.M. Thomas Issac "working class party and working class Heagemony: The experience of Alleppy" (Malayalam) Swathanthara Samaram Communist Prastavanam, Chinta Publishers, Trivandrum 1985. page.20.

[14] P.N. Krishna Pillai : "Labour Legislation in Travancore", Travancore Information Listener Vol. No 2 July 1946. page.18.

The new industrial policy of Travancore state had significant impact in terms of the emergance of the modern industrial sector in the state. As a result of this policy several large scale industries covering a very wide and diversified field of production were started in the period 1935-40. Some of them may be said to have been primary attempts in the production of goods which were till then never tried in India. Those were Rayons, Titanium Dioxides, Amonium Sulphate, Rayons Grade, Caustic soda, Aluminium, Rayons etc came in to existence only because of the state government creative and willingness to participate financially in the ventures and offer operational facilities to the maximum extent. The establishment of the FACT for the manufacture of fertilisers from liquid ammonia obtained from wood gasificacation is an outstanding example of this. In this case the government provided not only the major portion of the capital but also made power available at cheap rate and placed at the disposal of the concern, a large extent of reserve forest for the collection of fire wood[15].

The favorable condition for investment resulted in a spurt of joint stock company activity in Travancore. The total paid up capital increased by eight fold between 1933-34 and 1947-48. What is even more aggressive is the change in the sectional composition of the companies. The early phase of joint stock companies development was characterised by the growth of plantation companies and banking companies. During this period the trade and manufacturing companies also increased. Most spectacular was the emergence of chemical companies which accounted for 16% of the paid up capital in 1947-48. Joint stock companies to manufacture glass, Aluminium, Rayons and Titanium products account for 11% of the paid up capital. The sharp

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[15] Report of the Non-official Study Group on Power, Industries and Labour, Third Five Year Plan : Govt.of Kerala Trivandrum, page.31.

increase in the number of other trading and manufacturing companies is mainly due to the expansion of 'Agencies' trading companies and Government manufacturing companies. They also included relatively modern industrial concerns such as the electrical and allied industries limited (paid up capital 13 lakhs) and the forest industries Travancore Limited (paid up capital 25 lakhs)

Thus due to various reasons such as the fiscal crisis, administrative problems and political instability the new state government was severely constrained from intervening in a decisive manner to keep up the pace of industrialisation primarily due to inadequate political pressure the problems and needs of the region received little attention from the central government. The net result of the above situation was that Kerala failed to partake in the relative buoyancy of industrial development in the post independent india and by the mid sixties when Kerala had shaken off her lethargy, industrial development in the country as a whole had entered a phase of deceleration.

A major effort by the state to accelerate industrialisation with a diversified structure is necessary and very important condition of economic growth. In Kerala the role of the state as an investor assumes critical importance for historical reasons. The level of private investment in Kerala have remained historically very low. The private sector accounts for only about one third (32.6 percent) of the total investment of Rs.1192 crores in large and medium industries. see table-3.5. It is the public sector investment that sustains industrial activities in the state. Central sector accounts for 52.6 percent of the total investment. Reasons for this have already been discussed. The emerging industrial structure accentuated by the poor availability of industrial material was too lop sided to ensure inter-sectoral linkages and agglomeration economics for the over all industrial progress. Most of these disadvantages

still persists in Kerala and therefore, as in the past industrial advance, will greatly depend on public sector investment.

The Pattern of state investment appears lopsided. The limited state investment in large and medium industries is concentrated in chemicals and electronics (72% of state investment), The meagre share(9%) in the engineering industries reflects the lack of dynamism on the part of the state to enter into fields where private sector is dormant but which are vital to ensure a diversified industrial structure and growth[16]. It is also not worthy that state industries is promoting private entrepreneurship through joint sector specially in foot-loose industries has been poor. Further, investment in the public sector enterprises of the state has not been yielding adequate returns with a number of enterprises continue to incur loses which in a large number of enterprises accumulated beyond the value of paid up capital. The reason for the poor performance are complex and are not, as generally believed, confined to labour troubles and organisational weakness. No less important are product choice, marketing arrangements, pricing policy, inter sectoral linkages, choice of technology, modernisation level of R&D, managerial autonomy and other factors connected with the industrial planning. In the initial stages when large amounts of money were available to the public sector , they did not perform the pioneering role of laying the foundations for industrialisation. But in course of time they began to retard progress instead of accelerating it.

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[16] Government of Kerala, Report of the High Level Committee op.cit page.110.

Table - 3.5

Organisational Pattern of Investment in Large & Meadium Industries in Kerala as on 1983

Industry	Central Sector Rs	%	State Sector Rs	%	Joint Sector Rs	%	Co-op. Sector Rs	%	Private Sector Rs	%	Total Rs	%
Agro Based	96 (0.15)	0.94	5.67 (3.95)	55.5	148 (8.25)	1.45	677 (47.85)	6.63	8720 (22.39)	85.42	10208 (8.56)	100.00
Forest	14159 (22.58)	63.40	226 (1.56)	1.02	292 (16.28)	1.30	--	--	7657 (19.65)	34.28	22334 (18.73)	100.00
Marine	--	--	--	--	--	--	--	--	50 (0.13)	100.00	50 (0.04)	100.00
Mining / Minaral	796 (1.26)	36.07	600 (4.16)	27.19	272 (15.18)	12.32	--	--	539 (1.39)	24.42	2207 (1.85)	100.00
Textiles	1270 (2.02)	11.70	1412 (9.80)	13.02	161 (8.98)	1.49	704 (49.75)	6.49	7302 (18.75)	67.30	10849 (9.10)	100.00
Chemicals	30085 (48.00)	73.52	5767 (40.00)	14.10	765 (42.66)	1.87 (2.40)	34	0.08	4268 (10.95)	10.43	40919 (34.31)	100.00
Electronics / Electricals	1031 (1.65)	9.50	4618 (32.03)	42.57	155 (8.65)	1.43	--	--	5045 (12.95)	46.50	10849 (9.10)	100.00
Engineering	15245 (24.33)	69.83	1224 (8.49)	5.60	--	--	--	--	5368 (13.79)	24.57	21846 (18.32)	100.00
All Total	62690 (100.00)	52.56	14414 (100.00)	12.07	1793 (100.00)	1.50	1415 (100.00)	1.20	389449 (100.00)	32.66	119262 (100.00)	100.00

Figures in Pranthesis percentge and vertical total

Source : Report of the High level Committee on Industry Trade And Power Vol I State planning Board, Trivandrum 1984.

3.3 State Sector Enterprises in Kerala -The process of Evolution

There are three distinct stages in the evolution of public enterprises in Kerala. The first is prior to the second world war. The second begins from 1945 and the third commences in 1956. During the first stage, the Kerala region was divided into three political units. Travancore and Cochin state were under princely rule. Malabar was part of the adjoining Madras presidency and was under British rule. Of the three political units it was Travancore which registered considerable industrialisation with the growth of large scale cultivation of commercial crops like rubber, tea, cardamum and pepper in the ranges of Travancore roads and road transport connecting Cochin and Aleppy ports to Munnar peerumedu ranges in the eastern hills were developed. There were nine private enterprises. The organisation and management of plantation industries required large amounts of risk, capital and technical skill. The European planters possessed this advantages in contrast to the local entrepreneurs. In this context it may be recalled that Travancore was first to nationalise trade in commercial crops in 1750 A.D under the rule of Maharaja Marthandavarma (1729- 1758). But after a hundred years the trade was denationalised. The manufacture of salt is one of the oldest industries of the Travancore state. Salt used to be manufactured not only in the factories known as " Alam " in south Travancore between Cape Comarin and Colachel but also at ' Padamayasl situated in the margin of the backwaters in Trivandrum, Chirayinkal, Karunagappally, Karthikappally and Ampalappuzha Taluk. The manufactures of salt in the early days was free and unrestricted. But the monopoly system introduced in 1812 AD made the ryots indifferent to the manufacture of salt and the local salt industry was reached in 1904 AD When a new factory was opened in private account.

The credit of being the first public enterprise in consumer industry in Kerala goes to the soaps and Oil Ltd Calicut established in 1914 and which started full scale production in 1927. The second public sector enterprises was the potteries started by the Government of Cochin in 1917 but later it was sold to a private enterprise in 1943.

The policy pursued by the Government of Travancore as well as cochin was to encourage establishment of industries in the private sector. The manufacture of coirmats and matting was first introduced into Travancore by M/s Darragh Smail and Company at Alleppy. Similarly Sir.Victor Sassom started the bleaching and finishing mill at Alwaye. The manufacture of tiles was also started by European, but soon due to large deposit of clay in the state, indigenous entrepreneurs were affiliated to this industry.

The Government of Travancore was the first to realise that in the available circumstances capital was shy and entrepreneurial activity was absent and the problem of unemployment was acute, Government come forward to take the initiative in establishing industries under Government management. The result was the establishment of the Rubber factory at Trivandrum and the Government Ceramic Concerns at Kundara.

The Rubber factory in Trivandrum was established prominently to protect rubber plantation industry which was in distress as a result of The World Rubber Depression in 1933. The Travancore rubber factory was opened in 17th August 1935 under the full management of The Travancore Government on an experimental basis. It was the first of its kind in India and by starting this pioneer industry, the Government expected to show the public the possibilities and prospects of rubber industry.The Government also helped the rubber industry in falling in line

with the International Rubber Restriction Scheme and passed the Rubber Control Regulation Act of 1937 to provide for the control of the extension of the cultivation of rubber. As soon as the experiment proceed successful the Government handed over the factory to private ownership. Direct state participation in industrial development was therefore meant to encourage and attract private entrepreneur.

With regard to China Clay or Caoline, the state policy was on separate footing. After research and enquiry the Government was satisfied about the potentiality of the industry. Moreover, as no great, technical skill was required to transmute the Chinaclay into the commercial product, the Governments attention was confined to the refining of the raw product which was more or less a Government monopoly. The idea therefore to deal with the product and not to embark upon elaborate porcelain and other ceramic ventures except by way of experiments. The Government started the Ceramic concerns, Kundara in 1940. In the beginning mining and refining of china clay was the main item of work in the factory.

Besides in 1937 the Government of Travancore nationalised the road transport in the state and started a Transport Department. Originally the transport system was mainly controlled by private agencies and individuals, owing to cut throat competition among these agencies each endeavouring to oust the other and to appropriate the profit to itself, a system had been thoroughly demoralised. In this circumstances, the Government was convinced that transport was a fundamental and supremely national need. In pursuance of these declared policy, the Government issued a communiquie in the subject on 20th october 1936, laying out the main principles under lying the scheme and emphasising that "it is the duty as well as the right of Government to take into its own hands the control and regulation of public conveyances along the main trunk road and in

other selected localities in the state and to improve the organic waterborne traffic.

The out break of the second world war accelerated the demand for many products and the Government of Travancore and Cochin States were compelled to pay special attention to promote the war oriented industries. Consequently a variety of industries were established. Some of them may be said to be pioneering attempts in the production of goods which till then had never been tried in India. These were Ryons, Titanium Dioxide, Ammonium metal etc. Inspite of the lack of materials some of these industries such as Aluminium, Ryons etc came into existence only because of the State Government initiative and willingness to participate financially in the ventures and to offer operational facilities to the maximum possible extent. The establishment of fertilizer and chemical in Travancore State for the manufacture of fertiliser from ammonia obtained from wood gasification is an outstanding example of this. In this case the Government provided not only the major portion of the capital but also more power available at cheap rates and placed at the disposal of the concern a large extent of reserve forests for the collection of fire wood. Along with this a cement factory at Kottayam (The Travancore Cement ltd 1946), a Paper factory at Alwaye (1942)(Travancore ogale glass), an Electro chemical plant at Kottayam (1943),for the manufacture of calcium carbide, The Travancore Electro Chemical Industries (1945), an Aluminium Conductor Factory at Kundara(1943) were set up. In all these the state itself had to invest the majority share of the capital involved but the management was left in the hands of the private sector.

In the Cochin State where Sri. Shanmugham Chetty had already set a new pace of development facilities were offered to investors to come forward and organise industrial units. The resources of the state being limited, the Cochin

Government could not follow the pattern of Travancore Industrial Development had to be left in the hands of the private sector. So traditionally industries were considerably expanded. New industries like the Alagappa Textiles, The Cochin Potteries, The Victory Chemicals and Pharmaceutical works, The Tata Oil Mills and The Cochin Mallables were firmly established.

By the time the world war was over, a fastly strong industrial base was built up particularly in Travancore state. Cochin was following quite on the heils of Travancore and Malabar practically remained undeveloped. In the Travancore region a certain amount of planning was done in the name of post war reconstruction. The dawn of independence opened up a new era in the political life of Travancore and Cochin State. But unfortunately this was not the case in industrial sphere and in the field of public enterprises. The new Democrative Government in these states were struggling for survival until 1949 when the two states were integrated.

Kerala was reorganised as a state only in November 1956 and by that time the second five year plan was already formulated. Adequate attention could not be paid even in the formulation of that plan. Following the first general election in Kerala The Communist party came into power and the crucial issue for the people, the political parties and the Government was the question whether the communist should be allowed to continue in power or not. The whole energy of the people was used for organising a liberation struggle on the one hand and the other to resist. Obviously the biggest casualty in the process was the development scheme for the state.

However Communist Government had a more systematic policy towards industrial development than the Congress and Praja Socialist Party Governments, which proceeded it. They gave some attention to the development of existing

industries and also established a number of new industries both in the public and in the private sector during 1957-59. In the public sector the Government started The Kerale Ceramics, Kundara, The Kerala Cycles Ltd. Trivandrum and the Kerala Cycle rim Factory Trivandrum. The Kerala Ceramics, Kundara was commissioned in 1957 for manufacturing superior Porcelain Crockery Works. The Porcelain Crockery articles manufactured by the factory are in great demand through out India. But the factory had to face keen competition in the market. In order to run the factory on a profitable basis, the production of crockery wares has been limited and attention has been concentrated on increasing the production of electrical insulators. The Kerala Cycles Private Ltd, Trivandrum was started in 1958 with a share of capital of rupees 5 lakhs for the manufacture of bicycles. At first the factory was located in the Industrial Estate, Pappanamcode. It was started as a company but later the Government decided to liquidate the company and made it a departmental unit. After the reorganisation of the Government Owned Industries into Joint Stock Companies in 1964, it is working as a unit under the Trivandrum Rubber Works.

Since 1960, Kerala enjoyed comparatively better political strategy. A Congress Praja Socialist Party coalition with the Praja Socialist party chairman as Chief Minister assumed office. It was under their guidance that the third five year plan was formulated. During the third five year plan, the most significant achievement in the public sector was the establishment of the Trivandrum Spinning Mills, Balaramapuram and the Kerala State Industrial Development Corporation in 1961 and the Plantation Corporation in 1962. By the fourth year of the third five year plan steps were taken by the various departments for the formulation of the fourth five year plan. The first stage of the fourth five year plan was handled partly by the Presidents rule (September 1964, March 1967) and partly by

a non-Congress Seven Party United Front led by Communist Party of India (M) with E.M.S.Namboothiripad as Chief Minister (March 1967- October 1967). In May 1967 the Kerala Government issued the industrial policy statement which asserts that the state will function within the limits of policy laid down by the Government of India. According to this policy statement, a three fold categorisation was made regarding the steps to be taken by the Government towards various spheres of industrial activity. Firstly the state will try to develop and strengthen the infrastructure services for the further development of industry. Secondly it will encourage and assist the private sector in its efforts to set up industries and lastly in spheres important to community and where for any reason, private capital entrepreneurs are shy the Government will enter the field so as to assist in the building up of an integrated pattern of industries are necessary to the other and in a manner filling the obvious vacuum. These efforts together with the activity of the private sector would enable the rapid industrialisation in the state. The statement says that the Government policy will be directed not to the waist or impede any effort, but to smoothen the process[17].

In the light of the above policy a few industries were started in the state sector along with many in the private sector. Before the United Front Ministry of E.M.S. Nambbothiripadu could effectively implement its industrial policy, the partners quarrelled among themselves in the Cabinet in the Co-ordinal Committee and in the Assembly. By October 1919 there were corruption charges against all the ministers and the Chief Minister. Ultimately this led to the fall of the Ministry with the resignation of the Chief Minister on 24th October 1963. The Communist Party of India, The Indian Socialist Party, the

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[17] Gangadharan Pillai, "State Enterprises in Kerala". Kerala Academy of Political science, Trivandrum - 1970. page.114.

Kerala Congress and the Muslim League formed a Ministry on November 1st 1969 with C.Achutha Menon as Chief Minister.

From 1970 onwards Kerala started enjoying perhaps for the first time in her history, the rule of the state Government. The Congress-Communist Party Coalition Government with the C.P.I leader C.Achutha Menon as Chief Minister has remained in power for more than six years.Most of the existing industries were expanded. It was during this period the first steel complex at Feroke and the expansion of Traco Cables were completed. The scooter Factory at Alleppy, Excel Glass at Kalavoor, expansions of Travancore Cochin Chemical and Transformers and Electricals Kerala Ltd. were in different stages of implementation during the plan period.

Thus public undertakings contribute the bulk of the modern industrial sector in Kerala. Obviously the public sector plays a vital role in the industrial development of the state. Jawaharlal Nehru always reminded us, the battle against poverty and backwardness can be won only through massive industrialisation. Planning has created a strong base for a modern self-reliant industrial economy. We have a highly diversified structure with a impressive range of products, many embodying a high level of technology. We have created a wide entrepreneurial base. The public sector has acquired a commanding presence. It has played a pioneering role in introducing modern technology, in taking development to backward areas, in creating a wide range of industrial and technological skills and in curbing concentration of economic power. To it goes the credit of initiating large scale development of indigenous science and technology. The next phace of industrial revolution in India posses new challenges for the public sector. It must lead the complex and demanding process of absorbing and developing new technologies. It has to master the imperatives of modernisation. It has to first establish and thereafter spread a

new work culture in industry based on productivity, efficiency and quality. And it has to generate large surpluses for investment. As in the past so in the future, the public sector will occupy the commanding heights of our technologically modern economy and industry.

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STATE ENTERPRISES IN KERALA

Ushadevi M. "An economic analysis of modern manufacturing state enterprises in Kerala " Thesis. Department of Economics, Dr. John Matthai Centre , University of Calicut, 1995

STATE ENTERPRISES IN KERALA

CHAPTER-4

STATE ENTERPRISES IN KERALA

Kerala occupies a unique position among Indian States in many aspects. Though Kerala constitutes only 1.2% of the entire land surface of India, it has to support 3.8% of the total population of the country. This imbalance between land and population lies at the root of many of her economic problem especially those of unemployment and chronic poverty. The main emphasis of our five year plans Ist, IInd, IIIrd & IVth was on agriculture and social services. But our experience taught us that agriculture and social services by themselves will not be able to break the vicious circle of poverty and unemployment. It has to the supplemented by speedy industrialisation. This necessitated the growth of public sector enterprises in Kerala.

4.1 Objectives of State enterprises in Kerala

At the beginning the motive behind industrialisation was just experimental. Later on it was carried to solve unemployment problems. The following are the general objective of state enterprises in Kerala.

1. Industrialisation of the state.
2. Fulfilling the needs of the people for industrial consumer goods.
3. Full utilization of the surplus man power in the state by creating employment opportunities especially for the educated unemployed, exploitation of the rich natural resources of the state.
4. Stabilisation of the price of consumers goods and essential commodities.
5. Reduction of inter disparities in income & wealth.

6. Increasing Capital formation through commercial surplus of these enterprises.

4.2 Classification & Organisation of State Enterprises

It can be seen that no well defined principle has been followed in determining the form of organisation of Public Undertakings in our state. They are set up as departmental Undertakings, statutory corporation and Joint stock companies. The composition and forms of organisation of undertakings are of vital importance from the point of view of legislative control over it. For our analysis we can classify the public enterprises in Kerala into two broad divisions.

1. Manufacturing sectors
2. Service Sectors (Public Utility Services)

In the Manufacturing sector there are 3 types of industries _

1. Government Owned Companies.
2. Companies in which Government have majority of shares.
3. Government of India Companies set up in Kerala.

Service Sectors can be classified into 3- subdivisions such as -

1. Departmental Undertakings.
2. Undertakings managed by Independent Boards.
3. Undertakings managed by Corporations.

Departmental Undertakings are managed by various departments under their respective Ministries. (post & Telegraph, Kerala Telecom Circle, Department of Tourism & Development Corporation.

Undertakings managed by Independent Boards -KSEB.
Undertakings managed by Corporation - The KSRTC, KSFC, Kerala State Civil Supplies Corporation, The Kerala State Handicraft Development Corporation.

At the time of the formation of the State, Kerala inherited a strong industrial base from erst while Travancore consolidation of which was constrained by several factors; though additional investment in the state sector continued to grow. The relative progress achieved in the formation of State Sector enterprises appeared commendable. By 1989-90 Kerala had the highest number of state enterprises in the country, though its investment position is next to Uttar Pradesh and Andhra Pradesh. (see table-4.1) Of the investment of Rs. 13,358 lakhs 71% was in the manufacturing/commercial establishments, 18% was in promotional enterprises and 11% in financial enterprises. In relation to other sectors (Private, central and joint) within the state, state sector manufacturing investment constituted only around 12%. The implications of the pattern and direction or this relatively low investment is discussed in the subsequent sections.

The total number of Government Companies in the State at the end of 31st March 1993 stood at 99. During the year 1991-92 there were a total of 104 enterprises including 8 statutory bodies in the Public sector in Kerala. Out of these 104 enterprises 5 enterprises were in various stages of taken over/liquidation/merger. These five enterprises is given below.

No	Name of Enterprise	Present Status
1	Sideco Mohan Kerala Ltd.	Being taken over by SIDCO
2.	Kerala Fisheries Corporation Ltd.	Being merged with MATSYAFED
3.	Kerala Fishermen welfare Corporation Ltd.	-do-
4.	Kerala Inland Fisheries Devt. Corporation Ltd.	-do-
5.	Kerala State Engineering Works Ltd.	Under Liquidation.

Table 4.1

Capital Investment by state Government in Statutory Corporations/ Companies - 1989 - 90 (Rs in Lakhs)

Sl no	States	Financial		Promotional		Manufacturing		Total	
		No. of Enterprises	Investments	No. of Enter Prises	Investments	No. of Enterprises	Investments	No. of Enterprises	Investments
1	Andhra Pradesh	1	728	8	5006	28	8616	37	14350
2	Assam	1	89	6	1510	15	1283	22	1882
3	Bihar	3	944	7	1929	23	3998	33	6871
4	Gujarat	3	1000	6	418	20	2954	29	4372
5	Hariyana	3	224	9	2878	9	436	21	3538
6	Himachal Pradesh	1	119	5	1328	8	1021	14	2468
7	Jammu & Kashmir	3	112	4	1284	10	3568	17	4964
8	Karnataka	9	3014	11	1497	42	8070	62	12581
9	Kerala	4	1414	12	2404	51	9540	67	13358
10	Madhya Pradesh	5	313	6	1603	19	3574	30	5490
11	Maharashtra	2	2674	15	3444	19	1422	36	10240
12	Manipur	1	15	2	91	1	313	4	419
13	Meghalaya	-	-	3	420	6	842	9	1282
14	Nagaland	-	-	2	557	3	592	5	8584
15	Orissa	3	829	7	2721	52	4834	62	10680
16	Punjab	2	423	10	6630	14	3627	27	5089
17	Rajastan	4	2762	3	374	18	1953	25	497
18	Sikkim	2	105	1	22	8	370	11	14426
19	Tamil Nadu	2	1302	8	5185	33	7939	13	644
20	Tripura	2	24	3	129	3	491	8	644
21	Utter Pradesh	5	2836	23	2850	31	18541	95	24227
22	West Bangal	1	338	13	1503	23	4838	37	6679
Total		57	14265	164	43783	436	91522	857	154570

Source : T.L Sankar, R.Nanadagopal & R.K. Mishra, State Level Enterprises in India, An overview, Economic & Political Weekliy, Feb 25 1989

4.3 Characteristics:-

Of the 99 Companies 49 were fully owned by Government, and 26 were partly owned. The remaining 24 were subsidiary companies of the subsidiaries, 21 were owned by fully owned government companies and 3 were partly owned government companies (See table- 4.2)

Table 4.2

Total Investment by State Govt., Central Govt., Holding Co.s, & Others in Fully Owned State Govt. Co.s Jointly owned Co.s & Subsidiory Co.s

Sl no	Particulars	No. of Co.s	Investment by State Govt.	Central Govt.	Holding Co.s	Others	Total Inves-tmen-ts
1	Companies wholly owned by the State Govt	49	394.08	--	--	--	394.08
2	Companies Jointly owned with Central Govt & others	26	114.61	9.87	--	11.84	136.32
3	Subsidiery company	24	4.74	--	53.57	1.95	60.26
Total		99	513.43	9.87	53.57	13.79	590.66

Source: Report of the Comptroller And Auditor General of India-31st March '93. Government of Kerala.

The aggregate paid-up-capital of 99 Government Companies were Rs.590.66 crores, of which Rs.513.43 crores were invested by the state Government, Rs.9.87 crores by the Central Government, Rs.53.57 crores by holding companies and Rs.13,79 crores by others.

In addition to these Government Companies in Kerala, the following manufacturing companies owned by the Government of India were manufacturing in Kerala.

1. Cochin Refineries Limited, Ambalamugal, Cochin
2. Fertilizers and Chemicals, Travancore Limited, Alwaye
3. Indian Rare Earths Limited, Alwaye and Chavara.
4. Modern Food Industries(India) Limited, Edappally, Cochin.
5. Hindustan Latex Limited, Peroorkada,Trivandrum
6. Instrumentation Limited, Kanjikode, Palghat
7. Indian Telephone Industries Limited, Kanjikode, Palghat
8. HMG Limited,Kalamassery
9. Cochin Shipyard Limited Cochin
10. Hindustan News Print Limited, Mevettoor

The oldest of the Government companies in existence going by the year of incorporation is "the Travancore Sugars and Chemicals Limited" established on 23-6-1937 followed by the metropolitan engineering company limited formed on 25-1-1945. These companies were originally in the private sector and came to the government fold on 1974 and 1980 respectively. The first company organised by the government in the public sector was the Forest Industries (Travancore) Ltd. started on 10-8-1946. This company was started for supplying fire wood to F.A.C.T, which was then a state government company. Later on when F.A.C.T stopped the purchase of firewood the company took up the present line of production. Later on F.A.C.T became a central government concern.

The forest industries (Travancore) Ltd. was followed by the Travancore Titanium Products Ltd. formed on 18-12-1946. Thus of the 99 companies existing now only two companies existed in 1946. But a number of departmentally managed undertakings were functioning most of which have been converted into companies later on. An year wise growth in the number of companies is shown in the table 4-3

Table- 4-3

An Year-wise growth in the number of companies in State sector

Year	No. of Companies Formed	Progressive Total
1946	2	2
1950	1	3
1951	1	4
1957	1	5
1960	1	6
1961	2	8
1962	1	9
1963	5	14
1964	1	15
1966	1	16
1968	3	19
1969	5	24
1970	2	26
1971	2	28
1972	6	34
1973	4	38
1974	5	43

Year	No. of Companies Formed	Progressive Total
1975	13	56
1976	6	62
1977	2	64
1978	6	70
1979	1	71
1980	3	74
1981	3	77
1982	7	84
1983	4	88
1984	6	94
1985	2	96
1986	2	98
1987	5	~~98~~ 103
1988	0	~~98~~ 103
1989	3	~~99~~ 106
1990	2	~~99~~ 108
1991	1	~~99~~ 109
1992	0	~~99~~ 109
1993	0	~~99~~ 111

Source: Bureau of Public Enterprises, Kerala

It can be seen from the table that the growth of the Government companies started in the forties. The growth was very slow in the fifties. In the sixties the growth was nearly five fold. The number of companies went up from five to twenty four. The seventies recorded the maximum growth with forty seven companies, making the total number of companies seventy one at the end of 1979, an increase of about three fold compared to that of sixties's.

All the 99 companies were not new ventures in the sense that the activities carried on by about 22 companies were in existence in some form or other even before their starting. Some of them were departmentally managed undertakings, while some others were companies in the private sector. In a few cases the activities were carried on by some government departments.

The following companies were formed to take over the departmentally managed undertakings[1].

Name of the Company	Date of Incorporation	Name of The Dept. Undertaking
1. Kerala Ceramics Ltd.	1-11-1963	Kerala Govt.Ceramics, Govt. Ceramic Concern
2. Kerala Engineering Works Ltd.	20-3-1978	P.W.D Engineering Workshop

[1] Government of Kerala, Report of the High Level Committee on Industry Trade & Power, Vol.1, General Report on Industry, State Planning Board Trivandrum.

3. Kerala Soaps and Oils Ltd	1-11-1963	Kerala Soap Institute Hydro Generation Factory Oil Factory
4. Trivandrum Rubber Works Ltd.	1-11-1962	Travancore Rubber Works, Kerala Govt. Cycle Rim Factory Kerala cycles
5. Travancore Plywood Industries Ltd.	1-11-1963	Travancore Plywood Industries
6. Meat Products of India Ltd.	13-3-1973	Bacon Factory, Kuthattukulam
7. Kerala Minerals and Metals Ltd.	16-2-1972	F.X.P Minerals Trivandrum Spinning Mills

The following companies were formed to take over the activities carried on by Govt. Departments.

Name of The Company	Date of Incorporation	Name of the Dept. & the Activities
1. Rehabilitation Plantation Ltd.	5-5-1976	Forest Department Rubber Plantations
2. Plantation Corporation of Kerala Ltd.	12-11-1982	Forest Department Rubber & cashew Plantation

3.	Kerala Fisheries Corporation Ltd.	12-4-1966	Fisheries Department, Boat Building Yard, Workshop, Ice Plants, Cold Storage, Freezing plants, Animal husbandry, Dept. L&P feed Factory, Indo-Swiss Project
4.	Kerala Live Stock Development and Milk marketing Board	14-11-1975	Dairy Development Department, Dairy Plants, Animal Husbandry Dept, L&P Feed Factory Indo-Swiss Project.

In the following cases Government have Purchased the undertaking as such or purchased majority of shares.

	Name of the company	Name of the old Company	How Acquired
1.	Sitaram Textiles Ltd.	Sitaram Spinning & Weaving Mills	Purchased from the liquidator
2.	Chalakudy Refractories.	Cochin Potteris	Liquidated.
3.	Keltron Counters Ltd.	Metro Politan Instruments	Sick unit.

4. Kerala Electrical and Allied Engineering Company Ltd.	Allied Engineering Company	Liquidated.

The following companies were converted in to Government Companies by acquisition of majority shares in these companies either directly by Government or by Government companies.

1. Metropolitan Engineering Company Ltd.
2. Travancore Sugars and Chemicals Ltd.
3. Steel Complex Ltd.

Kerala Premo Pipe Factory Ltd. was run by the Indo-Norwegian Foundation. Subsequently they donated this to Government and Government Took it on 1-9-1959.

SIDECO was formed by amalgamating two companies viz. The Kerala State Small Industries Corporation Ltd. and The Kerala Employment Promotion Corporation Ltd. Scooters Kerala Ltd. was formed to implement the Scooter Project of the erstwhile Co-operative Scooters, Alappey.

The remaining companies, excluding the subsidiaries were started of by the Government. The subsidiaries were started by the respective holding companies and they also come to the Government fold, since they are owned by Government companies.

The Government companies existing now can be grouped into 14 sectors. The list of these companies can be seen in annexure I.

Table-4.3A

Sectorwise Distribution of State Enterprises in Kerala

Sl.No	Group	Number of Industries
1	Development & Infrastructural Agencies	10
2	Ceramics & Refractories	6
3	Chemical Industries	11
4	Electrical Equipment	5
5	Electronics	10
6	Engineering	11
7	Plantation of Agro Based Units	12
8	Textiles	4
9	Wood Based Industries	3
10	Traditional Industries	7
11	Trading and Infrastructural Development Industries	3
12	Welfare Agencies	7
13	Public utilities	5
14	Others	5
	TOTAL	99

Source : Bureau of Public Enterprise op.cit

It is seen from the (Table-4.3) that the decade seventies's witnessed an unusual expansion of state enterprises. Activity-Wise, the distribution shows that of the 99 state sector enterprises 44 are in the manufacturing, 9 in the area of plantation and fisheries, 22 are engaged in servicing and financing, trading and infrastructure 16, and 8 in the area of

institutions for the upliftment of poorer sections. Total capital employed in these enterprises approximate Rs.1687.95 crores and employment generated stood at 1,66,721 persons during 1992-93. Enterprises engaged in trading and infrastructure dominate both in employment and investment followed by manufacturing.

By 1992-93 the total employment represented by the state sector enterprises was around 1,66,721 regular employees and 32,625 seasonal employees. This represents roughly 10% of the regular employment in the organised sector.

From the analysis of the type of the enterprises established overtime by the state, it is seen that 80% of the workfroce employed and 60% of the invested capital are in 26 enterprises in operation before 1970. Similarly, the average number of employees per establishments before 1970 were 3000 and after 1970 was only 350. It is seen from the type of activity of the enterprises that most of the enterprises added after 1970 were in light technology areas in service/promotional enterprises. During the emergency period 1975-77, 21 state enterprises were added.

Table-4.4 gives details regarding the structure of employment in these enterprises. It is seen that 80% of the employment and 64% of the investment are in enterprises employing more than 100 employees. Their number is limited to only 14. However, the majority of enterprises numbering around 60 employ people below 200. It should be borne in mind that the state undertaking 1000 or more people are a few corporations/Boards such as Electricity Board, Transport Corporation etc. which are operating in the area of infrastructure and services. In the case of manufacturing enterprises those employing more than 1000 are limited in number and also they were established before 1960. Confining to the

manufacturing sector, it is seen that on the average state enterprises employ 440 persons per enterprise. It also seen from the (table-4.8) that very high capital labour ratio is associated with industries like chemicals and low capital labour ratio is associated with industries like chemicals and low capital labour ratio is associated agro wood, ceramics and textiles and engineering industries. On the average one crore rupees employed by state sector generate direct employment for hardly 52 people. In other words the major chunk of investments is concentrated in highly capital intensive areas like chemicals. The total loss incurred by all enterprises amounts to Rs.161.56 crores.

Table-4.4

Classification of State Enterprises According to the Number of Employees as on 1992-93

Number of Employees	Number of Units	Employees	Capital Employed (Rs. Crores)
1000 & above	14	81983	1093.00
500 - 1000	15	12017	299.00
200 - 499	20	6633	191.53
100 - 199	22	794	103.30
100 & below	18	101447	1687.95

Source: Bureau of Public Enterprises Kerala

Table - 4.5 shows the employment in the organised sector in Kerala both in the public and private sector. In

1991 - 92 public sector accounted for 56.05% of total employment in the organised sector.

In terms of capital investments in government owned companies in Kerala in March 1992 stood at Rs.36,505.63 lakhs. It rose to Rs.39,759.74 lakhs in March 1993.

Table - 4.5

Employment in Organised Sector in Kerala 1975 - 1992 (in Thousands)

Year	Public sector	Pvt. Sector	Total
1975	293318 (41.73)	409562 (58.26)	702880
1980	418151 (47.47)	462712 (52.25)	880863
1983	496659 (48.54)	526459 (51.45)	1023118
1984	516478 (49,43)	528309 (50.56)	1044787
1985	536864 (51.45)	518282 (49.11)	1055146
1986	550670 (51.45)	519512 (48.54)	1070182
1987	565587 (52.41)	513503 (47.58)	1079090
1988	568713 (52.85)	507395 (47.15)	1076088
1989	576784 (52.63)	519115 (47.36)	1095899
1990	585391 (49.01)	508917 (42.61)	1194308
1991	602690 (54.50)	501653 (45.42)	1104349
1992	616546 (56.05)	486354 (43.94)	1102900

Source: Directorate of Employment, Thiruvananthapuram

The overall performance of public enterprises in Kerala in the past years has not shown any encouraging signs. (see Appendix 4.7 & 4.8). The state of affairs in these industries was quite disturbing and the present scenario, dismal and discouraging.

Of the 99 companies, 60 incurred losses, two statutory companies also sustained losses there are a few government companies which are running on continuous losses. In respect of meany of these the accumulated losses have exceeded the paid up capital (see table-4.6).

Among the statutory Corporations, the Kerala State Road Transport Corporation had accumulated losses of Rs 254.66 crores in 1992-93 as against Rs.224.55 crores in 1991-92; an increase of Rs.30.11 crores (13.4%)

Some 13 companies have been making losses from their inception.

Because of the continuous losses, public enterprises are failing to pay Government loans or to pay the interest on such loans. Nearly Rs.55.6 crore loan was overdue for payment to the Government. Besides, the overdue interest worked out to another Rs.69.35 crores.

Although there are a number of companies making profits the direct return to Government on it's investment is not much. During 1991-92, even though 24 companies earned profits amounting to Rs.571.87 lakhs, only four of them declared dividends amounting to Rs.14.93 Lakhs. During 1990-91, 6 companies earned together an amount of Rs.173.02 lakhs, but none of them declared dividends. Out of the two companies which earned a profit of Rs 38.80 lakhs in 1989-90, one company had delivered dividend amounting to Rs.2.24 lakhs. From a total

Table - 4.6

Details of Public Sector Industrial Undertakings Whose Accummilated Loss Exceeded their Paidup Share capital (Amount in Rs. Lakhs)

Name of Undertaking	Paid up Capital As on 31-3-1993	Accumulated Loss As on 31-3-1993
Manufacturing Industrial Enterprises		
ELECTRONICS		
Kerala State Electronics Development Corporation Ltd.	6691.55	6893.14
Keltron Electro Ceramics Limited	195.29	344.53
KSIE GROUP		
Travancore Plywood Industries Limted	48.59	962.34
Kerala State Salicilates and Chemicals	628.00	1217.90
CHEMICALS		
Kerala Minarals and Metals Limited	3093.27	10799.46
TEXTILES		
Sitaram Textiles Limited	317.00	1567.74
Trivandrum Textiles Limited	264.99	755.10
ELECTRICALS & CABLES		
Metropolitan Engineering Co. Limted	138.17	363.88
Transformer and Electricals Kerala Limited	1347.54	4195.60
ENGINEERING		
Steel and Industrial Fergings Limited	450.00	1184.00
Autocast Limited	1310.00	4209.28
Scooters Kerala Limited	229.99	267.76
Kerala Automoblies Limited	323.00	1404.63
CERAMICS & REFRACTORIES		
Kerala Ceramics Limited	1031.98	1441.85
Chalakudi Refractories Limited	346.64	484.64
AGROBASED		
Foam Millings (India) Limited	68.00	216.61
TRADING AND PROMOTIONAL AGENCIES		
Kerala State Cashew Devolepment Corporation Ltd.	3058.95	11249.84
Kertala State Small Industries Development Corporation Ltd	451.59	628.93
Kerala State Coir Corporation Limited	235.04	248.97
Total	20229.59	48490.20

Source : Government of Kerala Economic Review 1993

investment of Rs.127 crores in the public sector, Government got only a surplus of Rs 38 lakhs in the year 1991-92 after setting off the profits made by 24 companies against losses made by 14 companies.

In terms of value of production, sales turn over and utilisation of installed capacity the performance of Kerala Minerals and Metals Ltd., Malabar Cements Ltd., Kerala Automobiles Ltd., Sitaram Textiles Ltd. and Kerala Ceramics Ltd. was encouraging. They have achieved better working results after a long period. The performance of Kerala Minerals and Metals Ltd. and Malabar Cements in perticular was very encouraging (see Appendix 4.1 to 4.3). Among the public sector units in which the Government is holding majority shares, The Travancore Cochin Chemicals Ltd. Travancore Cements Ltd. Traco Cables Company Ltd. Transformers and Electricals Kerala Ltd. and Keltron Electro Ceramics Ltd. showed better results in terms of value of production and sales turn over during 1992-93 compared to those in the previous years. Rate of capacity utilisation in these units, except Traco Cable Company has also increased during this period. Details of the units under the Government majority groups are furnished in (appendix 4.4 to 4.6).

Among the Government owned companies Steel industries Kerala Ltd., Kerala Agro Machinery Corporations Ltd., Kerala Clays and Ceramic products Ltd., Astral watches Ltd. and Kerala Premopipe Factory Ltd. were running on profit during the period 1991-92. The value of production of steel industries, Kerala remained at the same level as that of the previous year, while the turnover of the company grew by 39.86%. The operating profit earned by the company also went up by 116.61% during the period. The Kerala Agro Machinery Corporation Ltd. has been losing money since it's inception in 1973.

The Kerala Clays and Ceramic Products Ltd. incorporated in June 1984, produced 7914 MT of China Clay as against target of 7000 MT during 1991-92. The sales turnover was 7545 MT exceeded against a target of 6450 MT of China Clay.

The Kerala Premopipe Factory Ltd. improved their production as well as a sales turnover. Sales rose by 42.31% over that of the previous year. The Astral Watches Ltd. assembled 2.53 lakhs watches during 1991-92 for H.M.T Ltd. and earned a profit.

Manufacturing state enterprises are also not exception to the general performance of the public sector. Manufacturing State Enterprises have been classified into different sectors like Development and Infrastructural Agencies, Ceramics and Refractories, Chemical Industries, Electrical Equipments , Electronics, Engineerings, Textiles and Wood Based Industries.

Ten enterprises that provide help for development of various activities in different fields and provide financial assistance for industrial development have been grouped under the sector Development and Infrastructural Agencies. (Name of these enterprises are also shown in the Annexure I). This sector employs 4550 persons which forms 2.73% of the total employment in public enterprises in Kerala and accounts for 14.46% (Rs.57383.84 lakhs) of the total investment.

The performance of this sector has shown improvement during 1991-92. Eventhough the number of loss making enterprises have gone up to five from four in 1990-91, the net loss of the ten enterprises taken together has come down from Rs.335.55 lakhs to Rs.139.17 lakhs during 1991-92. The remaining five enterprises have provided a profit of Rs.274.79 lakhs

compared to Rs.170.98 lakhs during 1990-91. The total cash loss also has decreased and the network has improved. The enterprise that have made profits are Kerala State Industrial Development Corporation Ltd. Kerala State Industrial Enterprises Ltd. Kerala Financial Corporation, Kerala Urban Development Finance Corporation Ltd. and Kerala State Financial Enterprise Ltd.

In the field of ceramics & Refractories six enterprises have been included. 1548 persons (0.93% of the total employment) are employed in this sector which accounts for 0.74% (Rs.2936.35 lakhs) of the total investment in the public sector. The performance of this sector has shown marginal improvement during 1991-92. Eventhough the number of loss making enterprises remained the same (five) the net loss has come down to Rs.101.63 lakhs from Rs.121.09 lakhs in 1990-91. The net worth has improved straightly, but still remains negative. The turnover has gone up to Rs.804.73 Lakhs compared to Rs.672.38 lakhs during the previous year and the cash losses have come down by more than 50%. Kerala Clays and Ceramic products Ltd. is the only unit that has generated profit during 1991-92 and also declared a dividend of 10%

The performance of the chemical sector has declined during 1991-92. The sector which employs 7434 persons (4,46% of the total employment) and accounts for 8.53% of total investment has made a net loss of Rs.946.44 lakhs compared to Rs.867.12 lakhs during last year. However the amount of profit generated by four of the eleven enterprises has improved to Rs.1856.87 lakhs (Rs.1444.46 lakhs in 1990-91). These enterprises are Malabar Cements Ltd. The Travancore Cements Ltd. The Travancore Cochin Chemicals Ltd. and Travancore Titanium Products Ltd. The major loss making enterprise in this sector is The Kerala Minerals and Metals Ltd. During 1990-91 it further increased to Rs.1275.82 lakhs. The other loss making enterprises are Kerala State Detergents and Chemical Ltd., Kerala State Drugs

and Pharmaceuticals Ltd., Kerala Soaps and Oils Ltd., Kerala State Salicylates and Chemicals Ltd., Pharmaceuticals Corporation (IM) Kerala Ltd. and Travancore Rubber Works Ltd.

Five enterprises in the field of manufacture of eletrical items have been included in the sector IV: Electrical Equipment. The sector provides employment for 3693 persons (2.22% of total employment) and has an investment of Rs.13495.39 lakhs (3.40% of total investment). The performance of this sector has improved profits aggregating Rs.93.39 lakhs. These are United Electrical Industries Ltd. and Transformer and Electrical Kerala Ltd. The other three enterprises made losses totaling to Rs.466.80 lakhs. The net loss has came down to Rs.373.41 lakhs which is less than 50% of net loss during 1990-91 (Rs.688.71 lakhs). However The total net worth has further eroded and stands at Rs.(-)2280.55 lakhs.

The electronic sector consisting of ten enterprises employs 3991 persons (2.39% of total employment) with an investment of Rs.18497.22 lakhs which is 4.66% of the total capital invested in the public sector in Kerala. The sector as a whole has performed badly during 1991-92. The net loss has gone upto Rs.2802.44 lakhs (Rs.1091.23 lakhs during 1990-91) as a result of reduction in turnover by about Rs.2910 lakhs. The net worth has eroded to Rs.221.83 lakhs compared to Rs.2807.99 lakhs (1990-91) with six of the ten enterprises having negative worth. Of the eight loss making enterprises, seven have made cash losses too. Keltron Component Complex Limited and Keltron Crystals Limited and the two enterprises that have made profits aggregating to Rs.129.20 lakhs. The major loss making enterprises are Kerala State Electronics Development Corporation Limited, Keltron Power Devices Ltd., Keltron Counters Ltd. and Keltron Rectifiers Ltd. Keltrone Compound Complex has declared a dividend of 14% for the year 1991-92.

There are 11 enterprises in the engineering sector which accounts for an investment of Rs.14252.53 lakhs (3.59% of the total investment) and provides employment for 3484 persons (2.09% of the total employment) eventhough the turnover has improved by about Rs.699.33 lakhs. However the number of loss making enterprises has come down to seven from nine. Four enterprises namely The Metel Industries Ltd., Kerala Agro Machinery Corporation Ltd., Kerala State construction Corporation Ltd. and Astral Watches Ltd. made profits during 1991-92. However the cash losses have increased by almost 50% and the net worth has become negative. The major loss making enterprises are AutoKast Ltd., Steel Complex Ltd., Kerala Automobiles Ltd., Steel and Industrial Forgings Ltd. and Steel Industries Kerala Ltd.: Kerala Agro Machinery Corporation Ltd. has delivered a dividend of 12% for the year 1991-92.

The total capital invested in the textile sector is Rs.3877.31 lakhs which is 0.98% of the total capital invested in the public sector. It employs 3029 persons which account for 1.82% of the total employment.

The performance of the sector as a whole has declined during 1991-92. Even though the turnover has increased to Rs.3437.21 lakhs from Rs.3040.99 lakhs during 1990-91; all the four enterprises in this sector made losses that aggregate to Rs.282.62 lakhs. During 1990-91 one unit had made profit (Kerala State Textile Corporation Ltd.). Trivandrum Spinning Mills Ltd. and Sitaram Textiles Ltd. are the major loss making enterprises. The net worth is negative at Rs.993.98 lakhs.

The wood based sector employs 864 persons (0.52% of the total employment) in there units. The total capital investment amounting to Rs.1478.62 lakhs which is 0.37% of the total capital investment. The performance of this sector has come down in comparison to 1990-91. The turnover has

decreased by Rs.303 lakhs. Two of the enterprises, compared to one during the last year, made losses totalling to Rs.212.40 lakhs. Forest Industries (Travancore) Ltd. has made a profit of Rs.4.10 lakhs during 1991-92 compared to Rs.23.45 lakhs in 1990-91. Travancore Plywood Industries Ltd. made a loss of Rs.168.33 lakhs. The net worth of the sector has further eroded and stands at Rs.(-)1309.55 lakhs.

4.4 Sickness in Public Enterprises - Some General Causes

One must not overlook the fact that there is greater sickness in private sector than in the public sector, considering extremely large number of units in the latter. But what is really significant is that sickness in all cases is not exclusively due to any one factor but due to a variety of reasons. So let us analyse and short list the most outstanding reason which could render any industrial unit, public or private, to be marginal sick and would render it unprofitable and non-viable. Such a list could be as under.

(a) A project which is abinitio misconceived.

(b) A good project suffering from misconceived fiscal policies of the government regarding prices, licensed capacity or problems through misconceived import policy or defective or on salable product.

(c) Lack of financial resources and liquidity.

(d) Lack of efficient technical and operational skill in management.

(e) Poor productivity with bloated must employ more workers than necessary.

(f) Shortage of power, frequent interruption Etc.

(g) Labour troubled through strikes, lockouts and go slows or work-to-rule.

(h) Any restraint to close down in line or suspended

operations when operations patently prove unprofitable.

(i) Wanton misinterpretation of labour laws making a mockery of collective bargaining leading to fictious demand from labour.

(j) not making timely change in the product with the advent of new technologies regarding the product absolute and unsaleable.

However the public sector units have in addition, certain obvious handicaps which is not the lot of a private sector. A desire to indulge in politicalising the management of industry had resulted in bringing about destabilisation.

Poor capacity utilisation is another important cause for low productivity in the public sector. Inadequate capacity utilisation is largely explained by erratac power supply. A major part of production loss in fertilizer industry has been caused by power problems.

Another cause for inefficient performance of the public sector is huge inventory accumulation. A large portion of the total investable funds get stagnated in the form of unrealised products. Inventory accumulation in some major enterprises has accounted at times for about $1/3^{rd}$ of the total capital. This makes capital-output ratio high and reduces the quantum of return on investment. Due to inventory accumulator, automatic flow of investable funds is also constrained.

Professional and well-trained management is an essential requirement for the success of any enterprise. In the case of public enterprises in India and particularly in Kerala this is lacking. Persons placed in charge of big enterprises are politicians and retired civil servants, who are not qualified by their past experience or achievements to hold

position on which drive and initiate are essential requirements.

The selection of the project should take account of not only the type of enterprises but also the scale technology adopted and the location of the enterprises. On all these counts we have badly blundered in the past. Projects were started in areas where there was no justification. The location was determined on political consideration rather than on economic grounds. The scale was determined more by a prediction for 'gigantism' rather than on the leases of economic calculation of production potential and likely demand. Also, in selecting the proper technology full thought was not always given and the collaboration was at time in to with firms whose own achievement and technical know how had yet to be proved.

Unduely long time taken in completing the projects is also a serious handicap to be considered. Unduely long time taken is more likely to be due to the lack of proper planning. To formulate a realistic time schedule and to adhere to it is of basic importance for starting any enterprise. This should be considered to be an absolute 'must' in the case of public enterprises which tens and hundreds of crores of rupees are sunk.

Factor responsible for the poor performance of public enterprises mentioned in the above paragraphs are not exception to the public enterprises in Kerala.

Under utilisation of capacity is a major problem of majority of concerns. In most of the cases utilised capacity was below 50% of the installed capacity. The only concern which utilised to the full and even more than the installed capacity was the Malabar Cements Ltd. It produced 104 lakhs M.T of portland cement against the installed capacity of 4.2 lakh M.T in the case of Keral Agro Machinery Corporation it

was only 29% during the last 10 years. Lack of demand, non availability of rawmaterials and labour unrest are the major factors generally mentioned to explain heavy excess capacity

On an average, it is estimated that the percentage of powercut imposed, during the year 1991-92 and 1992-93, caused loss of production to the tune of 86.8%. At about 135 production days were lost on this account during 1991-92.

Stiff competition from the private sector which are engaged in the production more or less identical commodity and uses identical rawmaterials is also a factor responsible for the bad performance of public enterprises in Kerala.

Non-availability of rawmaterials, high price of rawmaterials, and it's poor quality etc. rises the cost of production which may result in loss for the undertakings. In the case of Trivandrum Spinning Mills Ltd. the value of production, sales turnover and the losses increased during 1992-93 due to high cotton prices and sluggish yarn prices. Due to the poor quality of limestone from it's mining area, The Malabar Cements Ltd., had to import large quantity of rawmaterials from outside the state, which pushed up the cost of production. The major reason for the losses of Travancore Sugars and Chemicals Ltd., during 1991-92 was the fall in the sugarcane supply.

Approach of the Public is another factor responsible for the poor performance of Public sector. Public sector in India especially in Kerala enjoys little public faith and it has been blamed as "Nobody's Sector". People are not bothered about the mounting losses of these enterprises. There is no private initiative to increase productivity or to make profit.

Problem of mis-management. The public sector enterprises are often played with undue political interference in their day to day working and there has a demoralising effect on the management and other personal of these enterprises. Many appointments are at the top are not made on the ground of professional competence or suitability, but are determined by various political considerations.

As corruption increased in the Government as a whole the public enterprises began to provide usefully flexible avenues for corrupt practices.

Pricing policy is another factor. The objective of pricing policy may not be profit maximisation. Many of the public enterprises are following a price policy which is working below cost. It is here that cost wounted in many of the enterprises because of over employment and inefficient management. At the same time the necessity to ensure that prices over cost except in very special circumstances, was overlooked.

Some external factors beyond the control of the enterprises also pose serious problems. For instance the operational efficiency of K.S.R.T.C depends on the conduction of roads, fuel cost, tax etc.

Besides external factors there are many internal bottlenecks arising within the enterprises. These includes those arising at the production stage and at the marketing stage of commodities.

Neglect of the centre is another serious problem responsible for the bad performance of public enterprises in Kerala. The share of central investment is very meagre. It was only 1.58% during 1991-92. On the other hand five states of Maharashtra, Bihar, Madhya Pradesh, Andra Pradesh and Utter-

Pradesh accounted for more than 56% of Central Investment.

Public enterprises are often faced with adverse labour struggle. This is due to militancy of trade union in Kerala. That is why Kerala faces migration of industries to other states. The recent strikes are mainly due to trade union. In many cases the authorities failed to check before it become aggressive. It is to be noted that Kerala and West Bengal topped list of all the states on the number of man days lost.

4.5 Manufacturing Industrial Enterprises

We have detailed above the picture of the entire spectrum of state owned enterprises in Kerala. Here we may confine to a discussion of Manufacturing Enterprises only.

Of the fourteen sectors across which the 99 enterprises have been distributed, seven sectors are classified as Modern manufacturing Sectors. These seven sectors accounts for 50 units with an investment of Rs.88454.87 lakhs which is 22.29% of the total capital invested. Graph.II shows the sector wise break up of capital investment into share capital and loan funds in these sectors for 1989-90 and 1992-93. The capacity utilisation of these sectors for the same period is also shown on a comparative scale in Graph III and also in the following table. It may be noted that in some enterprises the capacity utilisation has been very high.

Table 4-7

Capacity Utilisation of Manufacturing Enterprises

Sl-no	Sectors	1989-90	1990-91	1991-92	1992-93
1.	Ceramics & Refractories	23.67%	48.62%	45.34%	58.23%
2.	Chemicals	41.35%	38.24%	44.62%	58.23%
3.	Electrical	87.24%	108.25%	85.34%	118.98%
4.	Electronics	40.34%	48.54%	36.72%	39.25%
5.	Engneering	60.07%	80.18%	78.24%	93.98%
6.	Textiles	49.08%	46.73%	64.25%	58.79%
7.	Wood based	46.08%	30.24%	30.24%	31.26%

Source : Government of Kerala Bureau of Public Enterprises 1993

The distribution of manufacturing enterprises according to the line of activities gives the following picture. Of the enterprises majority of them are operating in the area of chemicals and pharmaceuticals. As seen from the (table 4.8) the manufacturing sector account for around 20% of the employment of state sector enterprises and 25% of the capital invested, 45% of the total accumulated loss of all enterprises. Industry wise employment per employees is highest in the case of chemicals and lowest in the case of ceramics and refractories followed by agro wood industries (See Table-4.8). Similarly, accumulated loss per employee is highest in the case of Electrical and lowest in the case of agro based and iron and steel industries.

By a rule Thumb, we can now attempt the opportunity cost of the accumulated loss in terms of employment forgone to the loss incurred by these enterprises. On the average per employee investment in state sector enterprises works out to Rs.1.92 lakhs. Had there been no accumulated loss the state sector Manufacturing enterprises would have generated 3807 more direct employment.

Table 4-8

Industry Wise Distribution of Factories According to Employment, Investment and Loss in the Manufacturing Enterprises in 1992-93

Sl.no	Industry	No.of Enterprises	Employment	Capital Invested (Crores)	Accumulated Loss (Crores)	Investment per employee:- in Lakhs
1.	Cermic& Refractories	6	1644	7.80	8.60	0.04
2.	Chemical	10	7434	294.53	14.54	3.35
3.	Textiles	4	1767	7.71	7.26	0.40
4.	Electronics	10	3825	102.22	11.16	2.67
5.	Electricals	5	3311	43.98	21.53	1.23
6.	Wood Based	6	3301	16.99	4.79	0.05
7.	Engineering	9	1628	10.00	3.17	1.37
Total		50	22910	486.69	71.05	52.00

Source: Bureau of Public Enterprises Kerala.

We have mentioned earlier that the percentage of employment generated by state owned enterprises is higher in regard to those enterprises started before 1960. The decade wise distribution (corresponding to the year of the formation of the state (1956)) showed that the share of employment and investment is higher in the case of enterprises established before 1965 accounting 67.76% and 55.65% of employment and investment respectively; though similar trend is not seen in the case of accumulated loss. (See Table-4.9).

Table-4.9

Employment, Capital Invested, Accumulated loss in State Factories According to the Year of Registration

Period	Number of Units	% of total Employment	% of total Capital Invested	% of accumulated Loss
Before 1965	18	67.75	55.65	48.94
1966-75	17	23.23	29.43	38.25
1975 & beyond	15	9.01	14.92	12.81
Total	50	100	100	100

Source: Same as table op.cit

The above description presented a picture of loss making enterprises. Though, on balance this is largely true, of the 37 companies for which consolidated balancesheet was available there are at least ten profit making enterprises. The profit earned by these enterprises on the average works out to 3% of the paid up capital (see table 4-10)

Table-4.10

Features of Profit Making Companies :
Present Position of Manufacturing State Enterprises 1992-93

Sl-no	Industries	No. of Companies	Profit as a % of Paid up Capital	Profit as a % of Sales	Profits as % of fixed Assets(net)
1.	Ceramics	1(4)	1.60	1.53	1.83
2.	Chemicals	1(7)	4.26	5.72	10.30
3.	Electrical	2(5)	7.56	2.76	9.25
4.	Electronics	2(8)	1.84	1.43	1.97
5.	Engineering	1(3)	2.09	3.20	1.03
6.	Textiles	1(4)	0.06	0.09	0.10
7.	Wood Based	1(2)	22.79	12.17	9.48
Total		9(33)	2.96	3.15	6.06

Figures in bracket represent the loss making companies.

Source: Bureau of Public Enterprises Kerala.

We have given above only a snap shot picture of nature and characteristics of the state sector enterprises in general and that of manufacturing enterprises in particular. We may conclude this section with a relative picture of the size of these enterprises vis-a-vis other major sector in the state. Among the large and medium industrial enterprises operating in the state, other state sector owned enterprises constituted 23% of all units, 10.9% of gross fixed assets, 12.1% of direct employment (see table-4.11). As a preliminary step to explore the loss making phenomenon, in the next chapter we shall be discussing some aspects of financial management of state sector enterprises in Kerala.

Table-4.11

Sector-wise Distribution of large and medium Industries in Kerala 1991-92

Particulars	Central Sector	State Sector	Co-op. Sector	Joint Sector	Private Sector	Total
Units in Production	17 (10.4)	38 (23.3)	7 (4.3)	11 (6.7)	90 (55.3)	163 (100)
Gross Fixed assets (Rs.crores)	461 (55.8)	90 (10.9)	10 (1.2)	13 (1.6)	252 (30.5)	862 (100)
Total Investment (Rs.crores)	627 (52.6)	144 (12.1)	14 (1.2)	18 (4.2)	389 (32.6)	1192 (100)
Estimated Annual Turn-over (Rs.crores)	804 (54.2)	126 (8.5)	23 (1.6)	11 (0.7)	519 (35.0)	1483 (100)
Direct Employment	21163	16228	3062	1750	41442	83645

Figure in the braket shows percentage to total

Source: Report of the high level Committee on Industry Trade and Power, Government of Kerala.

FINANCIAL ANALYSIS

Ushadevi M. "An economic analysis of modern manufacturing state enterprises in Kerala " Thesis. Department of Economics, Dr. John Matthai Centre , University of Calicut, 1995

FINANCIAL ANALYSIS

CHAPTER - V

FINANCIAL ANALYSIS

In business management finance occupies a major area. Here in this chapter we will be discussing about some aspects of financial management of state sector modern manufacturing enterprises. The financial management deals with the three major decision making areas namely the investment, decision, financing decision and the dividend decision. In this section we will be discussing mostly the second decision that is the implication of financing decisions with regard to the capital structure of the state sector enterprises. To start with, a close look at the capital structure of state sector enterprises reveal some interesting features. Of the capital invested hardly 23% was through the share capital and a major portion of capital base have been financed by long term borrowing. In the case of manufacturing sectors 28% of the capital invested was through share capital and the rest being accounted mainly by loan capital. This process of spreading thinly share capital across a wider spectrum of large number of enterprises is the characteristics feature of capital structure in state enterprises. The available recourse had to be spread very thinly because the quantum of resources available with state Government for investment remained more or less the same over time relative to capital outlays in other sector such as education, health, agriculture etc. Our analysis revealed that only the outlays committed to state enterprises (including services) not only fluctuated very widely overtime but also declined sharply to 9.17% in 1992-1993 from 22.3% in 1963-1964 (see table 5.1). The returns from such investment during this period marked out hardly

2.7% from manufacturing and 0.5% from services.[1] Evidently, majority of enterprises have became loss making prepositions as already discussed in the previous section

5.1 Spreading a thin layer.

As already mentioned in the third section the growth in number of enterprises must have been possible due to this process of spreading the thin layer of capital. In fact with the growth of number of enterprises there was no commensurate growth of investment in manufacturing. We have also attempted to see overtime how much resources in real terms (at constant prices) have been committed by the state in state sector manufacturing enterprises. The period taken was between 1972-1973 to 1992-1993. When the series at current prices were deflated by price series of plant and machinery (1970 = 100 and also 1980 = 100) it was found that the level of investment was found only marginally higher compared to 1972-73. In fact, the investment registered an increase of hardly 0.25% (at 1980-1981 prices). (Table 5.2) gives the details of both the manufacturing enterprises and service enterprises separately.

Loss making has its own inherent logic. The budgetary process in such a situation will be more adhoc and crisis oriented than development oriented. Since there is a total dependance of enterprises on Government resources, Government have a preference to provide loan than equity, for, it will avoid the uncertainly about yield and the period over which it will be earned. Government provides loans to the extent that they are properly serviced. From the enterprises point of view equity is a flexible instrument while loan add to cost in turn, affecting pricing competitiveness of the firm.

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[1] Finance Accounts, Government of Kerala, Various Issue.

Table 5.1

Government Investment in State Enterprises in Relation to Investment in Other sectors

Years	Investment in manufacturing public enterpr-ises	Investment in public sector engaged in services	Total invest-ment	Total develop-ment outlay	1 as % of 4	2 as% of 4	% of govt inves-tment in public sector
1960-61							
1961-62							
1962-63	11.85	0.52	12.37	1262	0.94	0.05	0.90
1963-64	98.86	183.85	282.71	1266	7.81	14.53	22.33
1964-65	154.51	44.99	199.50	1253	12.34	3.59	15.93
1965-66	174.31	97.25	271.56	1410	12.37	6.90	19.26
1966-67	254.75	70.88	325.63	965	26.40	7.35	33.75
1967-68	368.86	67.00	435.86	1481	24.91	4.53	29.43
1968-69	53.02	40.60	93.60	1680	3.16	2.42	5.58
1969-70	85.69	11.95	97.64	1717	4.99	0.70	5.69
1970-71	85.69	11.96	97.64	2430	3.53	0.50	4.02
1971-72	159.12	13.50	172.62	3157	5.04	0.43	5.47
1972-73	271.67	6.50	278.17	3170	8.57	0.21	8.78
1973-74	325.25	327.68	652.93	3837	8.48	8.54	17.02
1975-76	545.58	223.52	769.10	4498	12.13	4.97	17.10
1976-77	458.92	181.93	640.85	5632	8.15	3.23	11.38
1977-78	679.39	214.81	894.20	7334	9.27	2.93	12.20
1978-79	802.60	258.52	1061.12	6551	12.26	3.95	16.20
1979-80	1842.91	190.69	2033.60	10252	17.98	1.86	19.84
1980-81	1485.12	359.11	1844.23	11523	12.89	3.12	16.01
1981-82	2321.59	215.42	2537.02	12830	18.10	1.68	19.78
1983-84	1193.47	517.46	1710.93	20424	5.85	2.34	8.38
1984-85	1512.64	298.92	1816.56	19103	8.86	1.75	10.61
1985-86	1614.56	326.42	1840.98	19612	8.23	1.66	9.90
1986-87	1432.24	312.34	1744.58	20104	7.12	1.55	8.68
1987-88	1634.36	219.26	1853.62	21324	7.66	1.02	8.70
1988-89	1786.54	334.32	2126.86	20413	8.75	1.64	10.39

Conted....

1989-90	1547.24	412.64	1959.88	22314	6.93	1.85	8.78
1990-91	1832.96	324.58	2157.54	23216	7.90	1.40	9.29
1991-92	1932.42	358.52	2190.94	22184	8.71	1.17	9.88
1992-93	1986.38	318.45	2304.83	25132	7.90	1.27	9.17
TOTAL	28679.23	6193.90	34872.03	-	-	-	-

Source: Finance Accounts Various Issues, Government of Kerala Reserve Bank of India Bulletins : Finance of State Governments Various Issues.

Table 5.2

Annual Average Compound Growth Rates of Government an investment in state sector manufacturing Enterprises and Service enterprises

Periods	State manufacturing sectors	State service sectors	Total (Manufacturing service)
1962-63 31 Years 1992-93	0.32 (31.70)	0.38 (35.60)	0.32 (32.40)
1962-63 12 Years 1973-74	0.35 (35.20)	0.80 (76.7)	0.43 (43.4)
1973-74 12 Years 1984-85	0.15	(-)0.08 (-)(9.00)	0.10 (9.70)
1984-85 8 Years 1992-93	0.12	(-)0.06 (-)(7.00)	0.09 (9.40)

Note : In brackets growth percentage are presented.

We are not passing judgement on the behavior of state government in favoring loan to equity but what is questionable is the easy options like granting a loan to tide over the crisis when the crisis itself is generated due to the lack of sufficient equity base. When loan enters as a major

element in the capital structures it generates its own logic of a dept trap. This tendency of providing only seed capital became more profound since bank nationalisation. The prospect of loans from financial institutions, it is often pointed out had led to a proliferation of state enterprises in all states with little thought on the viability of such enterprises.

When we compare the extent of loan accumulated over time in the capital structure the gravity of the situation can be realised. While the standard norm is of 50:50 distribution between dept and equity, in some enterprises under state government the debt equity ratio is as high as 8:1. Around 18 such enterprises which have high debt equity ratio (3:1) accounted for 71% of the total accumulated loss of the state sector enterprises. These enterprises accounted for 41% of the total equity capital of state sector, enterprise. Coming to the revenue part accruing to the Government our calculations showed that dividend is only a minicule proportion of the total revenue

Now let us hypothesis a situation in which these loans are converted to equity. How will the picture look like! We have calculated the revenue due to government from dividend interest charges, income tax, sales tax excise duty etc. If we add up these elements of revenue it stood at 24-60 crores in 1990-1991, and steadily increased to 204 crores by 1992-1993, increasing element being interest charges. (See Table 5.3). This way of looking at the contribution of state sector enterprises is erroneous because the revenue yield other than dividend and interest charges may be available to the Government had the private sector invested the same resources Hence we omitted those items and calculated the dividend and interest charges which worked out to 20% of the 33% of the paid up capital invested in all enterprises in the year 1992-93 which in turn means that the entire investment can be recouped within three

years! The point of emphasis is that there exit scope for conversion of loan element into equity.

Table 5.3

Total Revenue Paid and Payable to the Government for four years

Rs crores

	1989-90	1990-91	1991-92	1992-93
1. Dividends	00.17	0.17	00.17	00.64
2. Interest Charges	07.50	26.42	33.12	77.78
3. Income Tax	00.71	00.93	06.66	09.00
4. Sales Tax	07.14	19.51	17.04	37.89
5. Excise Duty	08.60	18.58	22.54	32.54
6. Other Taxes	00.48	00.84	18.77	37.12
TOTAL	24.60	66.45	99.30	194.97
Govt.equity	239.10	240.00	240.18	241.10

Above given is a snapshot picture of all state sector enterprises including those in trading activities. Where the dept equity ratio can be fairly high than in the case of manufacturing[2]. Therefore we have separately worked out the incidence of interest due to dept accumulation.

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[2] Report on the Economic Advisory Council "Public Enterprises in India, some current issues may 1992".

Table 5.4

Total Revenue Paid and Payable to the Government by Manufacturing Enterprises (1992-93)

1992-1993 (Lakhs)

Interest	1347.48
Dividend	1.20
Excise Duty	1698.49
Sales Tax	1346.17
Other Taxes	541.86
Total	4935.20
Govt:Equity	18500.41

As Table 5.4 shows the major source of income to the state continues to be from interest charges and it constitutes nearly 9% of Government equity committed in these enterprises in a single year[3]. Needless to say we found a high

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[3] As on 1992-93 the government equity in the manufacturing enterprises stood at 185.41 and interest and dividend accounted for Rs.14.67 crores.

Source : Large and medium industries including public sector industries. op.cit.

correlation (0.90) between the extend of indebtedness and loss making, the higher the dept element greater the quantum of loss and vice versa.

This does not mean that dept or lack of sufficient equity base is the major factor in the poor performance of state sector enterprise. May be this successive debt element must have been accumulated while remaining 'seek' for a long time. Some aspects of it we will be analysing in later sections. Perhaps there may be other equally important factors such as defective project planning, product planning, pricing, sales promotion policies etc in explaining the phenomenon of loss making in state sector enterprises. An analysis of such factors are beyond the scope of this study. Therefore, we shall confine here to a further analysis of the previous impact of financial strategy on other aspects of performance.

5.2 Impact of Financial Strategy on Financial Performance

Let us now discuss the implication of this financial structure of state sector enterprises by measuring financial ratios. These ratios are conventionally used to see whether the financial position of the company is good or bad or indifferent. At the same time, they reflect the direction of change, rate of change as well as the future potentialities. But we may strike a note of caution here. The ratios are only a preliminary step in interpretation. Therefore, we would like to see further the productivity performance of the state sector units before any further conclusions are drawn regarding the operational efficiency.

We had the intention to cover as many units as possible for this purpose. But for uniformity regarding age and size, we had to drop many units in between. Another problem

faced had been non availability of data for a longer period. The annual returns of state enterprises are not submitted to government in time. There are at least eight or nine state sector enterprises which did not even finalise their annual reports submitted by the state sector enterprises, we begin our analysis with the base year 1987-1988. The distribution of the sample units selected for financial and productivity analysis between the period 1987-1988 to 1992-1993 according to the industry is given in the (Table 5.5)

Table 5.5

The Distribution of Sampled Units according to Industry

Industry	No of sampled units	Share in the total output as on 1992-1993
1. Chemicals	3	43
2. Electricals	3	34
3. engineering	2	25
4. Ceramics and Refractors	2	32
5. Agro Wood Industries	3	40
6. Textiles	2	36
7. Rubber	1	NA
TOTAL	16	38

It may be mentioned that, of the 16 units in the sample, eleven units are loss making enterprises and only four units are making any profits. The distribution of the profit making units in the sample according to the industry showed the following pattern; two units belong to the chemical industry groups, one in electricals, and one in engineering industry.

It is seen from the Table-5.5 that of the 16 sampled units, their share of 16 units were around 38% in the total output accounted by all state sector enterprises in Kerala as on 1992-1993. The average size of the firms as measured by total number of employees is relatively high in chemical industry and in ceramics and refractories. The average age of firms are found highest in the case of electrical goods industry and lowest in the case of textiles. (see Table-5.6).

Table 5.6

Average size and average age of sample firms 1992-1993

Industry	Average size (employment) NO	Average age year
1. Chemical	1058	32
2. Electrical	513	41
3. engineering	470	14
4. Ceramics & Refractors	345	19
5. Agro & Wood Based	480	36
6. Textiles	381	17
7. Rubber	125	32
AVERAGE	530	25

For the purpose of examining the implications of financial strategy of financial structure, we are considering the following financial ratios. They are

(a) net worth to total assets

(b) total liabilities to the net worth

Let us briefly explain these ratios. The first ratio represents the percentage of total internal funds to total assets, the higher the ratio nearly 100 the stronger the financial stability and viceversa. The second ratio contrasts external with internal equity reflecting the relative interest of creditors and therefore the long run stability. The smaller is the ratio the higher is the interest of shareholders as compared with creditors. The ratio less than 100 is therefore desirable. If it exceeds 100 it would mean that handicap of interest charges become a critical burden.

Table 5.7

Financial Efficiency Indicators of Firm in the Sample 1987-1988 to 1992-1993

Industry wise

Ratios	For all firms	chem-ical	Elect-ricals	Engin-eering	Ceram-ics & Refra-ctorie s	Wood based	Text-iles	Rub-ber
1. Networth to total assets	0.38	0.59 (0.96)	0.42 (1.00)	0.30 (0.99)	0.10	0.14	0.12	0.8
II Total Liabi-lities total networth	1.48	1.38 (9.8)	1.47 (11.1)	1.38 (0.99)	1.70	1.54	1.48	1.84

Note : Figures in the brackets indicates the financial ratios of profit making enterprises.

The above table-5.7 shows the stability ratios. Surprisingly, both overall and industry wise ratios showed extremely unsatisfactory levels which in turn reinforce our earlier hypothesis of weak capital base of state sector enterprises reinforcing a weak financial structure. It is a big relief to report that when the financial ratios of profit making companies were considered it was found that their ratios had been more less on satisfactory levels. Though industry wise picture shows more or less the same trend, a note of caution may be added. The broad comparison of financial ratios of firms dealing with heterogenous product lines is apt to be misleading. But since there is considerable deviation from accepted norm product hetrogenity is unlikely to make much difference.

It may be mentioned in this context that the financial handicap imposed on them render them unable to initiate their own biological growth process. since all the loss making enterprises listed in the sample strictly stagnates we do not have the scope to investigate the relationship between the financial policy variables. (such as profitability, retention ratio, liquidity, debt ratio etc). However, when we examined the case of profit making companies the rank correlation between the growth of firms and the growth of financial variables such as profitability ratio, retention ratio for the period 1987-1988 to 1992-1993 the co-efficients, showed positive signs. However, profitability alone was found highly co-related with growth only, liquidity ratio has shown negative correlation with growth of profit making firms.

Note

1. Growth rate (G) - was defined as the simple arithmetic average of the annual changes in the net asset for the period is the indicator of average profitability of enterprises.
2. Retention Ratio - the undistributed profit as a percentage of net profit.

Let us now summarise the major points discussed in this chapter. An examination of the capital structure of the manufacturing state enterprises in Kerala revealed that it is heavily based towards debt. As substantiated by our empirical findings this has constrained the financial health of the enterprises by imposing a heavy interest burden ultimately resulting in vulnerable financial ratios. This does not mean that sufficient explanation on loss making phenomenon is provided by equity debt ratio. Perhaps there may be equally strong explanatory variables such as technology, defective project, planning, product planning, pricing etc. Though all those factors are import, an adequate treatment of all those factors is beyond the scope of our study. However, we may explore some technology related aspects in the next chapter.

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3. Profitability - gross profit less taxation would be net income of the firm.

4. Debt ratio - This variable measures the external finance raised by the firm through loans and advances for financing the growth purpose.

5. Liquidity - Another financial policy variables considered in the correlation exercise is liquidity. It is defined as the ratio of net liquid asset (cash, tax, marketable securities) to total asset. This indicator shows access to cash which the firm enjoys apart from its power to run down or take net trade credits.
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PRODUCTIVITY ANALYSIS

Ushadevi M. "An economic analysis of modern manufacturing state enterprises in Kerala " Thesis. Department of Economics, Dr. John Matthai Centre , University of Calicut, 1995

PRODUCTIVITY ANALYSIS

CHAPTER VI

PRODUCTIVITY ANALYSIS

In the former section we have made an analysis of financial efficiency of manufacturing state enterprises in Kerala. In this section we may try to analyse productivity trends at the group level of manufacturing state sector enterprises. The study has been undertaken for certain units of manufacturing state enterprises - chemical electrical, engineering, ceramic and refractories, textiles, wood based and rubber. The period chosen is 1986 - 87 to 1992 - 93.

The measurement of productivity is pre - eminently a quantitative and technical problem. The concept of factor productivity gives the contribution which one or all used factors make to production. This concept is reflected in the ratio between product (output) and the factor or factors used (input). It is the most useful measurement of the variations of productivity in time. It is the best means of evaluating the contribution of various factors. So let us examine the performance of manufacturing state enterprises in Kerala as reflected in the productivity measures.

One common and relatively simple method of measuring productivity ratios are labour productivity (O/L), capital productivity (O/K) and average product of material[1] (V/M). The ratios would mean that there is saving in the use of particular factor. Though the partial productivity indices are indicative of efficiency of production, it does not tell us which force or set of forces generated that movement.

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[1] O = Output, L = Total number of employees, V = Net value added, M = Material input.

Therefore, average product of any single factor cannot be used as an index of overall efficiency. For this purpose we constructed a measure of total factor productivity (TFP).

We measure total factor productivity as well as partial factor productivity for various manufacturing groups overtime. Further an attempt has also been made to explain annual variations in factor productivity with the help of multiple regression framework. Finally intergroup variations in productivity have also been discussed.

The concept of total factor productivity (TFP) defined as the ratio of output to a weighted combination of input has been used. There are different methods of constructing total factor Productivity - Kendrick Index, Solow Index and Divisia Index. The index of total factor productivity we applied is Kendrick Index, a linear neo-classical production function. This production function suffers from all the limitations of neo-classical production function and hence the results may only be taken as a rule of thumb.

$$\text{Total Factor Productivity (TFP)} = \frac{\text{Output Index}}{\text{Factor Input Index}}$$

Kendrick Index of TFP, denoted by TFP_k is defined as

$$TFP_k = \frac{V}{W_0 L + r_0 k}$$

Where V = Index of real value added

L = Index of labour

k = Index of real gross fixed capital

W_0 = Share of labour in value added in base year

r_0 = Share of capital in value added in base year

The procedure is by constructing an index of both capital and labour respectively with respective weights. These weights are shares of labour and capital in the base year and are added to get the total input. Then an index of output and also of total input is prepared by using appropriate deflators. The ratio of output index to that of total will yield the arithmetical total factor productivity index. In this manner we are comparing the actual output of factors would have been, had the productive efficiency prevailed.

6.1 Functions for Annual Variations in Factor Productivities

Here we discuss the factors which affect changes in factor productivity. It is postulated that factor productivity depends on scale of production and institutional framework such as labour-management-relations. Growth in scale of production permit adoption of technologies which improve productivity. Expansion of scale also provides division of labour which in turn improves productivity. Labour management relations affect motivation of workers, which in turn affect their will to work.

Based on the above hypothesis, function for TPF is specified as below:

$$P = f(Vt)$$

where P= Productivity Index

v= real value added as proxy for scale of production

t= time variable as proxy for management and labour relations, etc

The functions are estimated in log form; 't' of course is considered as linear.

6.2 Inter Group Variation in Productivity Growth

Factors affecting intergroup variation in productivity growth are now considered. At higher levels of output, economies of growth scale are generated which increase productivity. Capital goods embodying improved technology can be also adopted at a higher output level generating higher productivity. Productivity growth may thus considered to depend on output growth itself.

Based on the above hypothesis, the functions for explaining inter-group variations in productivity growth may be specified as follows:

$$P = f(v)$$

where P stands for growth ratio in productivity and 'v' stands for growth ratio in real value added at group level.

We have attempted both industry wise and overall analysis of partial ratios. The following procedure was followed for estimating the productivity indices. We have included all the 16 firms whose characteristics were discussed in the earlier chapter. However the following adjustments are made. All the major economic variables which have been made available in current prices were converted into constant price by using appropriate deflators. The wages and salaries have been deflated by cost of living index. Gross output and values added have been deflated by the wholesale index of concerned commodity or the nearest commodity price available. The fixed capital has been deflated by the price of machinery. Working capital was deflated by wholesale price of commodities. The growth rate of partial productivity indicators listed in table is revealing. When the productivity growth of the sample firms were worked it is seen that all the major indicators registered negative growth rates. However the record of profit making enterprises are also not so

encouraging. It is instructive to note that the average material productivity showed negative growth implying inefficiency of technology. This point we shall take up in later sections.

Table-6.1

Partial Productivity Indicators of Manufacturing State Enterprises 1986-1993

	Growth Rate of		
	O/L	O/K	V/M
Overall Growth	-1.10	-0.80	-0.92
I.Profit Making Enterprises of which	0.10	0.82	0.05
1) Chemical	1.5	0.60	0.14
2) Electrical	0.30	0.21	0.02
3) Engineering	0.45	0.50	-0.18
II. Loss making Enterprises of which	-3.20	-3.48	-4.00
a) Chemical	-1.10	-1.30	-2.30
b) Electrical	-2.00	-3.20	-3.20
c) Engineering	-1.8	-2.11	-5.20
d) Agro based	-3.10	-3.00	-4.10
e) Textiles	-3.10	-3.12	-4.30
f) Rubber	-4.12	-3.80	-4.20
g) Ceramics & Refractories	-3.50	-4.10	-4.28

The overall picture generally tend to observe the industry wise experience and hence are worked the partial productivity indicators for each industry such as value added per worker, average product of capital, average material productivity (see table-6.1). Among the profit making firms the performance of the chemical industry appears relatively better. In the electrical and engineering industry average material producing registered negative growth rate, a steeper decline was also registered in the case of engineering industry.

Coming to loss making Industries, needless to say, all indicators show negative signs. A higher degree of negative growth rates have been recorded in all three indicators in the case of rubber, agro based and textile, ceramics and refractories.

We also attempted to see the Correlation between wage share in value added and labour productivity for both the profit making and loss making enterprises in the sample. In the case of profit making firms the strong correlation between wage share and labour productivity is maintained only in the case of enterprises belonging to chemical and engineering industries.

In the case of loss making enterprises this relationship was found negative. Industry wise variations showed that in three industries textiles, agro based and engineering and rubber goods, wage share far exceeded the labour productivity.

An idea of declining efficiency of manufacturing state enterprises can be gathered from partial productivity indices discussed above, for, directions are very clear out. Inorder to get a total picture of emerging trends we construct a measure of total factor productivity.

6.3. Group Level Factor Productivities.

6.3.1. Ceramics & Refrctories :- Estimates of Factor Productivty

To examine the movements of total factor productivity over a time period of 1976-77 to 1992-93 in the ceramic group of state sector enterprises, kendrick method is adopted and presented in the following table.

Table-6.2

Indices of Factor Productivity Ceramics & Refractories:- 1992 - 93.

Year	Total Factor Productivity (TFP_K)	Partial Factor Productivity	
		LP	CP
1976 - 77	100.0	100.0	100.0
1977 - 78	108.9	111.1	106.3
1978 - 79	105.1	105.1	105.3
1979 -80	112.8	114.2	111.0
1980 - 81	105.1	108.3	100.0
1981 - 82	137.4	133.6	143.1
1982 - 83	111.3	109.2	114.6
1983 - 84	85.5	86.7	83.9
1984 - 85	70.9	72.3	69.0
1985 - 86	76.8	79.8	73.0
1986 - 87	69.4	73.3	64.6
1987 - 88	62.0	65.4	57.9
1988 - 89	66.6	71.4	61.0
1989 - 90	88.5	96.2	79.6
1990 - 91	109.7	121.0	97.1
1991 - 92	97.1	109.0	84.1
1992 -93	108.4	124.8	91.6
Annual Growth Rate %	-1.55	-0.74	-2.54

Kendrick index is marked by frequent fluctuations. For a base of 100 in 1976-77 it rises to 137 in 1981-82. Then it starts falling and come down to a very low level of 62 only in 1987-88. Again it starts rising but reaches a level of 108 only in 1992-93. Thus total factor productivity after rising in the beginning of 80's starts falling coming down to a very low level by the end of 80's. Thereafter TFP starts recovering but fail to reach the level of 1981-82. Over the entire period TFP for Ceramic industries decline at an annual rate of -1.55%.

Partial factor productivity indices of labour and capital have also been computed and are shown in the same table. Labour productivity shows an upward trend up to 1981-82 along with fluctuations and reaches a maximum of 134 in 1981-82. Afterwards it starts falling and shows a downward trend till 1987-88 where the index is 65 only. Again labour productivity starts gaining but reaches 125 only in 1992-93. Capital productivity after rising to 143 by 1981-82 come down to 58 by 1987-88. This pattern is, of course, not smooth but accompanied by fluctuations.

Over the entire period, partial factor productivity decline at an annual rate of -0.74% and capital productivity declines at an annual rate of -2.54%.

We have to examine the annual variation in factor productivity for this sector. As formulated explanatory variables are real value added, as indicative of scale of production, and time as proxy for institutional factors like management-labour-relations. It is noticed from (table-6.3) that in functions of TFP, coefficient of real value added is positive and highly significant. Thus as scale expands, TPF also rises. Further, the coefficient of time is also sufficient but with a negative sign which indicates that various institutional factors such as deteriorating labour management relations have been depressing total factor productivity.

Table - 6.3

Regression Functions for Total Factor productivity and Labour Productivity Ceramics and Refractories (1976-77 to 1992-93)

Eq-no	Dependent Variable	Coefficient of Constant	log(v)	t	R^2	R^{-2}	F	DW
I	Log (LFPK)	-0.360	1.076*	-0.049*	0.93	0.92	96.30	0.616
II	Log (LP)	-0.319 (-0.585)	1.060* (9.128)	-0.040* (-7.163)	0.86	0.84	43.14	0.614

Note : * Indicates Significance at 1 percent level.

In function for partial factor productivity of labour, real value added is highly significant with a positive sign and coefficient of time is also highly significant but with a negative sign. Expansion of scale, thus improves but institutional factors like labour management relations depress the partial factor productivity of labour.

6-3.2 Chemical group of State Enterprises

Kendrick Index of Total factor Productivity over a period of 1979-80 to 1992-93 in Chemical group of state sector enterprises are given in table 6-4

Table - 6.4

Indices of Factor Productivities - Chemicals
(1979-90 to 1992-93)

Year	Total Factor Productivity TFP_K	Partial Factor Productivity	
		LP	CP
1979-80	100	100	100
1980-81	104.9	109.7	100.3
1981-82	152.0	115.2	140.2
1982-83	103.9	105.8	102.1
1983-84	106.3	102.9	110.1
1984-85	92.9	90.7	95.4
1985-86	93.5	100.9	86.9
1986-87	88.3	95.7	81.7
1987-88	103.3	115.3	93.1
1988-89	110.6	118.7	96.2
1989-90	107.5	124.3	84.6
1990-91	101.9	127.8	76.7
1991-92	113.0	130.1	83.4
1992-93	135.4	145.2	97.0
Annual Growth Rate (percent)	0.40	1.98	-2.17

Kendrick index is marked by fluctuations. From a base of 100 in 1979-80 it first rises and reaches a peak of 152 in 1981-82. Afterwards it starts falling and shows a minimum index of 88 in 1986-87. Again it starts rising and reaches 135 in 1992-93. On the whole Total Factor Productivity after rising in the beginning of 80's starts falling and come down to a very low level by the mid 80's and from there it starts recovering.

Annual growth rate of Total Factor Productivity over the entire period is very low being 0.40 percent. Labour productivity and Capital productivity indices for the group are also shown in the table. labour productivity is marked by Fluctuation during 80's. From an index of 100 in 1979-80 it first rises and come down to 96 in 1984-85. From there it starts increasing and reaches 215 in 1992-93.

Capital productivity shows a downward trend along with fluctuations over the entire period. It first starts rising and reaches a peak of 140 in 1981-82. Then it starts falling and comes down to 97 in 1992-93 with ups and downs in between.

Over the entire period Labour Productivity increases at an annual rate of 3.98 percent where as Capital Productivity declines at an annual rate of 2.17 percent.

Regression functions for annual variations in factor productivities for this group are shown in table 6.5. In function for TFP, coefficient of real value added is positive and highly significant. Thus, expansion in scale of production has been generating growth in total factor productivity. Coefficient of time, on the other hand, is negative and significant. This indicates that deteriorating

institutional environment as reflected in labour management relations have been adversely affecting total factor productivity.

In function for partial factor productivity of labour coefficient of real value added turns out to be significant with a positive sign and coefficient of time turns out to be significant with a negative sign. Thus labour productivity is also generated by scale economies but deteriorated by adverse labour management relations.

Table - 6.5

Regression Functions for Total Factor Productivity and Labour Productivity: Chemicals (1979-80 to 1992-93)

Eq-no	Depen-dent Vari-able	Coefficient of						
		Constant	log(v)	t	R2	R-2	F	DW
I	Log (TFPK)	-0.329 (-0.860)	1.085* (13.015)	-0.095* (-11.846)	0.94	0.93	85.96	1.114
II	Log (LP)	-2.012 ! (-2.076)	1.427* (6.958)	-0.091* (-4.488)	0.88	0.86	41.36	0.557

Note: * indicates significance at 1 percent level
~ indicates significance at 5 percent level
# indicates significance at 10 percent level

6.3.3. Elecrical group of State Enterprises

Table-6.6 gives Kendrick index of Total Factor Productivity over a time period of 1979-80 to 1992-93. Kendrik index is marked by frequent fluctuations. From a base of 100 in 1979-80 it first rises to 110 in 1980-81. Then it starts falling but again maintain the level of 100 both in 1983-84 and 1984-85. After that it again moves up and down and falls down to a very low level of 54 in 1990-91. Then it starts gaining but reaches a level of 87 only in 1992-93, The annual growth rates decline to 1.26 percent over the entire period.

Labour productivity shows an upward trend with an annual growth rate of 1.25%. Over the entire period it moves up and down with a lowest index of 77 in 1981-82 and highest index of 1989-90. Capital productivity on the other hand shows a downward trend with a declining rate of 7.8% per annum. In 1980-81 it records a high index of 104. Then it starts going down and shows an index of 24 only in 1990-91 along with fluctuations. Again it starts gaining but reaches a level of 35 only in 1992-93.

Table 6.7 gives regression functions for annual variations in factor productivities for this group of state sector enterprises. In all the functions for TFP, coefficient of real value added is positive and highly significant and that of time is negative and highly significant. Growth in scale of production has been generating total factor productivity but labour management relations have been deteriorating total factor productivity.

Table - 6.6

Indices of Factor Productivities: Electrical
(1979-80 to 1992-93)

Year	Total Factor Productivity TFP_K	Partial Factor Productivity	
		LP	CP
1979-80	100.0	100.0	100.0
1980-81	109.6	111.4	103.9
1981-82	71.7	76.5	59.1
1982-83	73.1	78.1	59.9
1983-84	100.0	112.9	72.1
1984-85	100.0	115.5	65.6
1985-86	98.5	128.6	69.0
1986-87	107.5	100.3	48.3
1987-88	80.7	139.0	56.5
1988-89	104.4	131.2	46.6
1989-90	93.0	153.2	49.1
1990-91	53.8	83.4	24.4
1991-92	85.7	121.0	36.6
1992-93	86.9	131.6	35.4
Annual Growth Rates (%)	-1.26	1.25	-7.87

In the functions of partial factor productivity of labour, coefficient of real value added turns out to be positively significant. Thus growth in scale of production has been generating labour productivity. Coefficient of time turns out to be negatively significant. Labour management relation have been, therefore, adversely affecting labour productivity.

Table-6.7

Regression Function for Total Factor Productivity and Labour Productivity

Eq no	Dependent Variable	Coefficient of						
		constant	Log(v)	t	R^2	R^{-2}	F	DW
I	Log (TFP_K)	1.365 (1.479)	0.725* (3.543)	-0.042* (-3.368)	0.57	0.49	7.19	2.561
II	Log (LP)	0.114 (0.380)	0.986* (14.701)	-0.008# (-2.021)	0.97	0.96	162.22	0.634

Note : *, # Same as in Table-6.5

6-3.4 Engineering Group of State Sector Enterprises.

Factor productivity for Engineering Group of State Sector Enterprises over a period of 1976 - 77 to 1992 - 93 are given in (table 6.8) Kendrick index frequently fluctuates in the beginning. Then from a level of 125 in 1979 - 80 this index starts rising and reaches a peak of 168 in 1982 - 83. There after the index starts falling coming to a very law

level of 64 in 1988-89. Again the index starts rising but reaches 107 in 1992-93. Total factor productivity for engineering groups of manufacturing state sector enterprises declines at an annual rate of 3.52% according to Kendrick method.

Labour productivity is marked by fluctuations. After moving up and down till the mid of 80's LP reaches 76 in 1987-88. After ward LP shows an increasing trend reaching 149 in 1992-93. Capital productivity on the other hand shows an increasing trend in the beginning and end of the period. Thus CP from a base of 100 in 1976-77 reaches 177 in 1980-81. From 1980-81 to 1988-89 CP fluctuates., From an index of 55 in 1988-89 CP again increases reaching 83 in 1992-93.

Partial factor productivity of labour and capital also decline at an annual rate of 0.90% and 5.67% respectively.

Regression function results for this group are given in (table-6.9). In the function for TFP based on Kendrick method, coefficient of real value added is positive but not significant scale of production does not seem to be significantly affecting total factor productivity. Labour management relation is adversely affecting total factor productivity.

In the function for labour productivity also, the coefficient of real value added is positive but coefficient of time is negative. But these coefficient are insignificant. Therefore, neither scale of production nor labour-management relations turn out to be significant variables in the case of labor productivity.

Table - 6.8

Indices of Factor Productivities Engineering (1976-77 to 1992-93)

Year	Total Factor Productivity TFP_K	Partial Factor Productivity	
		LP	CP
1976-77	100.0	100.0	100.0
1977-78	99.4	92	107.1
1978-79	139.7	136.1	143.6
1979-80	125.2	110.8	144.3
1980-81	156.2	139.7	177.4
1981-82	163.3	152.2	176.3
1982-83	167.6	153.7	184.6
1983-84	151.2	141.6	162.4
1984-85	123.6	115.4	133.3
1985-86	87.5	140.8	63.1
1986-87	85.4	77.5	95.1
1987-88	75.0	76.3	73.8
1988-89	64.0	76.5	54.9
1989-90	69.5	90.1	56.4
1990-91	74.7	98.7	59.9
1991-92	90.5	122.3	71.6
1992-93	107.1	149.0	83.3
Annual Growth Rate(%)	-3.52	-0.90	-5.67

Table 6-9

Regression Function for Total Factor Productivity And Labour Productivity: Engineering (1976-77 to 1992-93)

Eq No	Dependent Variable	Coefficient of						
		Constant	Log(v)	t	R^{+2}	R^{-2}	F	DW
I	Log (TFP)	2.957# (1.834)	0.446	-0.094#	0.40	0.34	4.61	0.379
II	Log (LP)	3.834~ (2.379)	0.214 (0.606)	-0.037 (-0.773)	0.06	-0.07	0.43	0.879

Note : ~, #, Same as in table-6.5

3.5 Textile Group

The time period chosen for textile group manufacturing state enterprises is 1992-93. Because of some inconsistency in value added data for the earlier years, those years has been left out. Factor productivity for this group of enterprises are given in (table 6.10) Kendrick index from a base 100 in 1979-80, rises to 110 in 1980-81. But thereafter it starts falling and maintains the level of 80 in both 1983-84 and 1984-85. After that again it moves up and down and falls down to very low level of 59 in 1990-91. Then it starts gaining again it reaches a level of 65 in 1992-93. Kendrick index declines at annual rate of 5.12%.

Labour productivity is marked by

fluctuations. After moving up and down till the beginning of 1981 labour productivity reaches 71 in 1989-90. Afterwards labour productivity again starts falling but rises in 1992-93. Capital productivity also shows a declining trend. From a base of 100 it rises to 105 in 1980-81. After moving up and down it reaches to a very low level of 24 in 1990-91.

Partial factor productivity of labour and capital decline at an annual rate of 6.86 and 7.87% respectively.

Table - 6.10

Indices of Factor Productivities: Textiles(1979-80 to 1992-93)

Year	Total Factor Productivity TFP_K	Partial Factor Productivity	
		LP	CP
1979-80	100.0	100.0	10.0
1980-81	109.6	105.4	103.9
1981-82	71.7	60.5	59.1
1982-83	72.1	62.1	59.9
1983-84	80.0	73.6	72.1
1984-85	80.0	75.2	65.6
1985-86	73.2	77.1	69.0
1986-87	76.3	68.2	48.3
1987-88	70.5	71.3	56.5
1988-89	80.7	69.6	46.6
1989-90	76.3	71.2	49.1
1990-91	59.4	56.4	24.4
1991-92	62.2	58.2	36.6
1992-93	4.6	60.5	35.4
Annual Growth Rate (%)	-5.12	-6.86	-7.87

Regression function results for this group are given in (table-6.11). In the function for TFP based on Kendrick Method coefficient of time is significant with a negative sign. The coefficient of real value added is positive but not significant. Scale of production does not seem to be significantly affecting total productivity. Labour management relation is adversely affecting total factor productivity.

In the function of labour productivity also , real value added turns out to be significant with a positive sign. But time turns to be significant with a negative sign Growth in labour productivity is also generated by scale economies. Deteriorating labour management relations may be adversely affecting labour productivity, though not significantly.

Table - 6.11

Regression Function for Total Factor Productivity and Labour Productivity: Textiles (1979-80 to 1992-93)

Eq No	Dependent Variable	Coefficient of						
		Constant	Log(v)	t	R^{+2}	R^{-2}	f	DW
I	Log (TFP)	0.726 (1.086)	0.821* (5.579)	-0.011 (-1.681)	0.82	0.77	15.65	1.013
II	Log (LP)	0.754 (1.080)	0.822* (5.610)	-0.011 (-1.556)	0.82	0.77	15.90	1.022

Note: * Same as in Table-6.5

6.3.6 Agro Based Group

The time period chosen for the Agrobased group of state enterprises is 1976-77 to 1992-93 (Table-6.12) gives factor productivity indices for this group of enterprises. Kendrick index from a base of 100 in 1976-77 starts rising and

reaches a peak of 150 in 1982-83. Thereafter the index starts falling coming to a very low level of 64 in 1988-89. Again the index start rising but reaches 82 in 1992-93. Total factor productivity for agrobased industries decline at annual rate of 5.10% according to Kendrick Method.

Labour Productivity is marked by fluctuations. After moving up and down till the mid of 1980's labour productivity reaches 76 in 1988-89. Afterwards LP shows an increasing trend reaching 94 in 1992-93. Capital Productivity shows an increasing trend in the beginning and end of the period. Capital Productivity from a basis of 100 in 1976-77 reaches 184 in 1982-83. From 1981-82 to 1988-89 CP fluctuates from an index of 55 in 1990=91 CP increases reaching 83 in 1992-93.

Partial factor productivity of labour and capital declines at an annual rate of 5.49 and 5.67 respectively.

Regression function for this group are given in (Table-6.13). In this function of TFP coefficient of real value added is positive but not significant. Scale of production does not seem to be significantly affecting total factor productivity. Labour management relations is adversely affecting total factor productivity.

In the function for labour productivity also, real value added turns out to be negatively significant. Thus labour productivity is also generated by scale economies but deteriorated by labour management relations.

Table - 6.12

Indices of Factor Productivities: Agrobased (1976-77 to 1992-93)

Year	Factor Productivity	Partial Factor productivity	
		LP	CP
1976-77	100.0	100.0	100.0
1977-78	99.4	92.9	107.1
1978-79	130.7	132.1	143.6
1-79-80	120.7	110.8	114.3
1980-81	135.6	116.7	177.6
1981-82	142.2	126.4	176.3
1982-83	150.4	127.2	184.6
1983-84	133.2	116.8	162.4
1984-85	115.4	102.2	133.3
1985-86	87.5	115.6	63.1
1986-87	85.4	77.5	95.1
1987-88	75.0	76.3	73.8
1988-89	64.0	80.1	54.9
1989-90	69.5	82.4	56.4
1990-91	74.7	88.6	59.9
1991-92	80.2	94.3	71.6
1992-93	82.4	80.2	83.3
Annual Growth Rate (%)	-5.10	-5.49	-5.69

Table - 6.13

Regression Function for Total Factor Productivity

Agrobased (1976-77 to 1992-93)

Eq No	Dependent Variable	Coefficient of						
		Constant	Log(v)	t	R^2	R^{-2}	f	DW
I	Log (TFP)	-0.098 (-0.246)	1.023* (11.525)	-0.078* (-9.44)	0.93	0.92	98.97	0.432
II	Log (LP)	-0.790# (-1.126)	1.160 (7.423)	-0.067* (-4.588)	0.93	0.92	98.35	0.621

Note: * same as in Table 6.5

6.3.7 Rubber Group

Factor productivity indices for the Rubber group of state sector enterprises over a period of 1976-77 to 1992-93 are given in (table-6.14). Kendrick index first increases to 110 in 1978-79. Then it decreases and come to a level of 56 in 1992-93. Kendrick index declines at an annual growth rate 6.30% over the entire period.

Labour productivity shows an increasing trend in the beginning of 80's. From the mid of 1980's it shows a declining trend and reaches 48 in 1992-93. Capital productivity also shows a declining trend after 1980's. It reaches to 40 in 1992-93. Annual growth rate of labour productivity and capital productivity declines at a rate of 7.36 and 8.68 respectively.

Table - 6.14

Indices of Factor Productivities: Rubber (1976-77 to 1992-93)

Year	Total Factor Productivity TFP_K	Partial Factor Productivity	
		LP	CP
1976-77	100.0	100.0	100.0
1977-78	97.2	96.8	98.4
1978-79	109.6	100.4	82.6
1979-80	82.4	82.6	90.2
1980-81	85.8	83.5	84.3
1981-82	71.7	92.4	85.2
1982-83	72.3	80.6	66.8
1983-84	79.4	77.2	75.4
1984-85	80.0	78.5	76.6
1985-86	73.2	85.9	90.0
1986-87	76.3	76.5	68.5
1987-88	70.5	63.5	56.7
1988-89	78.7	68.0	54.3
1989-90	76.3	70.6	53.1
1990-91	59.4	71.2	55.3
1991-92	56.2	54.6	43.2
1992-93	50.1	48.3	40.4
Annual Growth Rate (%)	-6.30	-7.36	-8.68

Table - 6.15
Regression Function for Total Factor Productivity and Labour Productivity - Rubber group (1976-77 to 1992-93)

Eq No	Dependent Variable	Coefficient of						
		Constant	Log(v)	t	R^2	R^{-2}	F	DW
I	Log (TFPK)	-0.098 (-0.246)	0.446 (1.259)	-0.011 (-1.681)	0.40	0.31	4.61	0.37
II	Log (LP)	-0.790# (-1.126)	0.214 (0.606)	-0.037 (-0.773)	0.06	-.07	0.43	0.87

Table 6-15 presents regression functions for this group of enterprises. In the function for TPF, real value added is positively significant indicating that scale of production generates total factor productivity. Time is negatively significant. Thus labour management relation deteriorate total factor productivity.

In the function for labour productivity also, real value added turns out to be positively significant. Thus labours productivity is deteriorated by labour management relations.

Table 6.16 gives regression results for explaining inter-group variations in factor productivities. It is seen from this table that in function of TFP the coefficient of growth rate in value added is positive and highly significant at 1% level. This indicates that intergroup variations in output growth significantly affects intergroup variations in TFP growth. Our estimate suggests that 1% increase in growth rate of value added cause about 0.5% increase in growth rate of TFP.

Table - 6.16

Intergroup Variations in Factor Productivities

Eq No	Depen-dent Vari-able	Coefficient of					
		Constant	vg	R^2	R^{-2}	F	DW
I	TFPKg	-3.412# (-2.859)	0.507* (9.249)	0.91	0.90	84.47	2.739
II	LPg	-1.012 (-0.889)	0.540* (10.371)	0.92	0.91	107.55	2.140

Note: * Same As in Table - 6.5

In function for partial factor productivity of labour also, coefficient of growth ratio in value added turn out to be both positive and highly significant at 1% level. Thus intergroup variations in output growth also significantly affects intergroup variations in labour productivity. One percent increase in growth rate of value added leads to 0.54% increase in growth rate of labour productivity.

Thus we have estimated total Factor Productivity, Partial productivity, regression function for annual variations in factor productivities and intergroup variations in factor productivities of 7 group of manufacturing state enterprises. Worked out the growth rate of total productivity in the manner we found that the trend of loss making enterprises had been more or less similar to that of partial productivity indices worked out earlier (see table-6.17). Industry wise variations showed that

Key of Variables

TFP_{Kg} - Growth rate of Kendrick index of TFP

LPg - Growth rate of labour productivity

Vg - Growth rate of value added (at constant price)

the negative growth rate has been highest in the case of Rubber, followed by Textile and Agro based industries. In the case of profit making enterprises, the results has not at all been encouraging which in turn cast doubts in the long run stability of these enterprises.

Table-6.17

Growth rate of Total Factor Productivity 1982/92-93

	Growth rate of Kendrick index
I. Loss making enterprises all industries	-5.0
a. Chemical	-4.2
b. Electrical	-3.1
c. Engineering	-4.00
d. Agrobased	-5.10
e. Rubber	-6.30
f. Textiles	-5.12
g. Ceramics & Refractories	-4.12
II Profit making enterprises all industries	0.04
a. Chemical	0.70
b. Electrical	0.10
c. Engineering	0.12

We have not adjusted to capacity utilisation in the above exercise of total factor productivity (TFP_k). We have looked in to the dimension also. Which may exist a major influence on technology performance. when capacity utilisation was measured we could not see much evidence of improvement. The average utilisation of installed capacity for 38 products between two periods of time is 1986 and 1993 showed that there is a decline of capacity from 52.2% to 47.5% by 1993. But when the capacity utilisation of profit making enterprises,

it seen that between 1986 and 1993 these enterprises recorded a growth rate of only 3% in capacity utilisation. The decline in the case of loss making enterprises is to the extent of 10% points. The capacity utilisation of the products as percentage of installed the capacity is given in (table - 6.18) and industry wise capacity utilisation is given in (table - 6.19).

Table - 6.18

Capacity Utilisation as a Percentage of Installed Capacity

1986		1993	
Frequency Class	No	Frequency Class	No
0 - 24	13	0 - 24	14
25 - 49	9	25 - 49	8
50 - 74	7	50 - 74	9
75 and above	9	75 and above	7
Total	38	Total	38
Average utilisation rate	52.2		47.5
Average utilisation rate of Loss making Firms	52.20		42.30
Average utilisation rate of profit making firms	52.20		55.67

It is interesting to observe from the above table that only six products belonging to electrical goods and chemical improve its utilisation over 1986. Needless to say these products belong to profit making enterprises.

Table - 6.19

Industry Wise Utilisation Rate

Industry Group	No. of Products	Capacity Utilisation: Below 20	Above 20	Above 50	Above 70	No. of Products Whose Utilisation increased over 1968
Chemical	11		7	4	1	3
Electrical	10		1	5	4	3
Engineering	7		5	2	-	Nil
Ceramics & Refractories	5		3	2	-	Nil
Agro Industries	6		4	2	-	Nil
Rubber	1	1	-	-	-	Nil
Total	40	1	20	15	5	

Thus in this section we have analysed productivity trend at the group levels of manufacturing state enterprises. The period chosen for the study is 1976-77 to 1992-93. But it differs from group to group depending upon availability of data. Total factor productivity by Kendrick Method and partial factor productivity have been measured for various state sector groups overtime. Inter group variations in factor productivities have also been considered. Estimates of TFP for majority group shows a declining trend. Labour productivity and capital productivity also shows falling trend. Annual growth rates of total factor productivity and labour productivity for most of the group have been declining.

Annual variation in factor productivities have been explained with the help of regression

functions. For this purposes Kendrick Index of TFP and partial factor productivity of labour have been regressed on two postulated determinants of factor productivity growth: real value added as indicative of scale of production and time, as indicative of labour management relation. Generally while growth in value added has been generally productivity, deteriorating labour management relations has been depressing productivity.

Intergroup variations in factor productivities have also been explained. To explain this growth rate in factor productivity for the groups have been regressed on growth rate in output for the corresponding groups. Growth in scale of output permits efficiency in division of labour and also adoption of improved technology, both of which generate factor productivity. Regression analysis shows that intergroup variations in total factor productivity and labour productivity is determined by intergroup variations in growth of scale of production. In industries where growth of output is higher, it also generate higher growth in productivity. Similar result is obtained in the case of intergroup variations in partial factor productivity of labour. Growth in labour productivity also depends on growth in output.

We have also attempted to see the correlation between wage share in value added and labour productivity for both the profit making and loss making enterprises in the sample taken. In the case of profit making firms the strong correlation between wage share and labour productivity is maintained only in the case of enterprises belonging to chemical and engineering industries.

Finally an attempt has been made to adjust capacity utilisation in the exercise of total factor productivity which may exert a major influence on technology performance.

INTERRELATIONSHIP BETWEEN FINANCIAL ANALYSIS AND PRODUCTIVITY ANALYSIS

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INTERRELATIONSHIP BETWEEN FINANCIAL ANALYSIS AND PRODUCTIVITY ANALYSIS

CHAPTER-VII

INTERRELATIONSHIP BETWEEN FINANCIAL ANALYSIS AND PRODUCTIVITY ANALYSIS

Following the analysis of financial and productivity trends of state sector enterprises in Kerala, in this section we can see the interrelationship between financial performance and productivity performance. Though there is no one to one relationship between financial and productivity performance, logically at least one disadvantage may lead to the other. We are examining this interrelationship in the case of sample firms under enquiry by means of rank correlation coefficient. When the indices of financial performance of loss making firms (in terms of accumulated loss) and technical performance (in terms of total productivit) were ranked, the correlation between the two variables were found highly significant at 0.92. In the case of profit making firms such a relation between technical and financial performance are also found significant at 0.80 implying a close interrelationship between these two aspects of performance. Here indices used were pretax profitability and total productivity.

7.1 Dissecting Cost Structure

The more or less similar pattern in productivity performance of state sector enterprises forced us to look into the cost escalating factors. This was done for two points of time 1986-1987 and 1992-1993.

When the movement of major cost items over time was examined, as seen in the (Table-7.1), two major elements of cost had increased their share over time. They were

raw materials, rent and interest. The wages and salaries element registered marginal increase. The depreciation element declined, the implications of which we shall discuss in detail later. The interest element showing higher proposition indicates the debt burden already discussed in the previous section.

Table 7.1

Cost Structure of Firms in the Sample

Major cost elements			Profit making		Loss making	
	1986-87	1992-93	1986-87	1992-93	1986-87	1992-93
Fuel	6.26	6.32	6.25	6.28	6.22	7.11
Raw matereal	49.24	52.06	48.12	48.11	48.12	51.10
Wages & Salary	23.32	24.82	21.10	23.84	23.19	25.80
Royaltees, Technical fees etc	0.01	--	0.03	0.25	0.01	--
Rent	0.05	0.07	0.15	0.17	0.18	0.72
Interest	10.89	12.32	10.55	10.16	9.00	14.07
Depreciation	7.32	3.10	8.12	9.00	7.10	2.10
Others	2.74	1.30	5.75	2.18	6.00	4.70
Total	100	100	100	100	100	100

However this general picture changes when we separate out between the profit making and loss making firms in the sample some intersting features emerge. In the case of loss making firms the increase in cost elements had registered increase in particular raw materials and wages and salaries and interest. But in the case of profit making companies a number of disturbing features appear. To illustrate the fuel and raw material cost more or less remained the same time implying absence of incremental improvement in the productive efficiency overtime. Moreover wages and salaries also recorded a tendency to increase.

We have also looked into the industry-wise variations in the cost structure of enterprises in the sample. In the case of loss making enterprises the broad features remain more or less similar as reported in (Table-7.1). In the case of profit making enterprises the variation was observed in the case of chemical industry which registered a slight decline in the raw material and fuel cost. The escalating raw material and fuel cost indigates the falling conversion efficiency. Therefore in the following pages we will examine in detail the technology related problems of manufacturing state enterprises.

7.2 Causes for Low Productivity

(a). Level of Technology

We ventured to seek more details on the level of technology by these enterprises. Of the 16 enterprises in production only six of them had contracted any technology collaboration with foreign technology suppliers. Of the six collaboration five had already expired and the enterprises either did not renew them or entered into collaboration for new product lines. This cannot however be interpreted as a sign of

inefficient adaptation of technology but has been due to the sheer inability of the enterprises to sustain the cost of collaboration to reap the benefits[1]. Of the 16 firms in our sample one firm only in the chemical is having ongoing collaboration. Two firms only added products for diversification since 1978. One was for Vanaspathi whose technology is already available domestically. The other example was Vitamin A by state sector drug unit. The design for this technology was purchased from Roche, a multinational company. For both these products companies spent 3 crores worth of plant and equipment, out of which 1 crore was spend on imported plant and equipments. It is alleged in this context that the technology from Roche was an outdated one. The modern technology was developed starting from acetylene gas and the price of the product due to this technology is very much less[2].

In this context it should be mentioned that the profit making enterprises have a better record of product addition. In the case of chemical industry, the existing collaboration enabled the enterprises to add two more products. In the case of engineering and electrical industries four more products were added of which two are having some novel features. These two products belonging to electrical and engineering industry were added, the enterprises claimed, due to their internal technological strength. This point we shall examine in later sections.

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[1] This opinion came from the Managing Directors of respective state sector enterprises.

[2] See P.V.S Namboothiripad, "A Survey of Chemical Industries in Kerala" - paper presented in a seminar organised by state committee on Science and Technology 1984.

(b) Renovation and replacement :-

As seen in the previous section loss making by its inherent logic affects the operational efficiency. This built in resource constraints can not be over looked or ignored while discussing the possibilities of technology upgradation of manufacturing state sector enterprises. In this section we will be discussing in detail a few technology related aspects having considerable bearing on productivity. Even in such a situation of resource constraints the minimum that should be aimed at is that these firms should provide adequate depreciation charges to replace fixed assets and thereby maintain operational efficiency at a minimum level. Our analysis relating to loss making companies revealed that even this provision, as seen in the cost structure data had gone down considerably during the last few years. In the ordinary circumstances the replacement of existing capital asset through reserves and accumulation of surplus in the manufacturing state sector enterprises can be a source of renovation and modernisation. For loss making enterprises the prospects of capitalisation of reserves have been very dim. In such a situation these enterprises have to fall back upon their day-to-day business needs on Governmental loans, as we have seen in the last chapter, which in turn generate built in claims for interest and for replacement of capital assets. However, the depreciation provision though may be inadequate for timely modernisation of plants and equipments, effective utilisation of it may be adversely affected in a crisis situation. Since depreciation provision provides the enterprises liquidity without any servicing liability it can also be diverted to other channels. The analysis of ten loss making companies which provided information on this aspect suggested that of Rs.21139 lakhs demarcated for depreciation between 1986 and 1993, only 6.8% was used for expansion and renovation. It is interesting to observe

from the table-7.2 that only electrical goods industry spent more than its depreciation provision. The leakage of depreciation provision has been mostly due to its diversion in to the day-to-day expenses.

Our way of interpreting the depreciation provision may be objected to, for, when utilisation of depreciation fund is not warranted and this fund can be used for investment elsewhere. But this possibility is not being supported in our enquiry. In fact, even this marginal provision for depreciation was misused by companies in meeting day-to-day expenses which in turn has a telling effect on the obsolescence of capital is borne out by evidence such as the age of equipments used etc which we shall discuss in the following paragraphs.

Table-7.2

Expenditure incurred on expansion fund of depreciation

Industry	Expenditure on expansion and renovation (Rs lakhs)	Mobilisation through depreciation (Rs lakhs)	Expenditure on expansion and renovation as % of depreciation
Chemicals	696.78	19573.00	3.56
Electricals	581.35	223.00	261.00
Engineering	97.31	1117.00	8.77
Others	57.00	226.00	25.23
Total	1432.44	21139.00	6.78

(c). Technology Related Factors

It is to be noted in this connection that the firms surveyed acknowledged the generally poor plant wise labour productivity. As seen in the table all the engineering and electrical firms have listed the following factors affecting the productivity in the major industry groups like chemical, engineering and electricals. They were

(1). Irregular delivery of parts and components
(2). Poor internal scheduling
(3). Inadequate jigs and fixtures
(4). Poor plant lay out.

Infact the first two factors reinforce each other and therefore mutually related.

Interstingly enough, sub-contracting components which was one of the major policy objectives of the state sector enterprises[3] did not receive any serious attention. Of the 16 enterprises listed in our sample two have only such arrangements. But extent of procurement via sub-contracting is only 10 to 15 percent of the requirement of the enterprises. This has implications on cost reduction via ancillarisation and linkages about which we shall discuss later. The rest of the requirements are procured from outside the state. Apart from the cost escalating factors in such procurement, irregular delivery of parts and materials affect the normal flow of production leading to poor internal scheduling and thereby lower productivity of both labour and equipment. Scheduling problems got aggravated due to limited length of run per machine.

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[3] Industrial Policy Resolution, Government of Kerala. op.cit

Inadequate jigs and fixtures on the normal circumstances are attributed to inadequate operational data changes in customers specification, delays in the finalisation of designs etc. As the table-7.3 shows even the profitmaking enterprises are not free from problems. One enterprises in the chemical industry admitted of having problems because of poor plant lay out. This firm thinking of diversifying into new products with imported technology finding the existing lay out inadequate for new products lines. Even the existing product lines could have produced with lesser cost had the plant possessed a better lay out. The enterprises belonging to engineering and electical industries complained of the irregular delivery of parts and components.

(d) Age Profile of Equipments

In the context of state sector enterprises a major factor in depressing productivity appear to be lack of mordenisation. This factor is being highlighted by the age of the equipments used in industry. The age profile of equipments used in the industry gave very interesting insights. As seen from the (Table-7.4) only a fraction of equipments is of recent vintage. This tells upon the lack of modernisation leading to poor quality of tools.

Table 7.3

Factors Affecting the Productivity the Reasons of Sample Enterprises in Major Industries

	Loss Making Enterprises				Profit Making nterprises		
Factors (Problems)	Chemical	Electrical	Engine-ering	Cermics & Refract-ories	Chemical	Electrical	Engine-ering
Irregular Deliv-ery of Parts & components	--	2 (100)	2 (100)	--	--	1 (500	1 (50)
Poor Internal Scheduling	1 (100)	2	1 (100)	2 (100)	--	--	--
Inadiquate Jigs & Fixtures	--	2(100)	(100)	2 (100)	1 (50)	--	--
Poor Plant Layout	1 (100)	2 (100)	1 (100)	2 (100)	--	--	--
Poor Quality Tools	--	1 (100)	1 (100)	2 (100)	--	--	--
Inadquate Poll-ution Controll System	1 (100)	--	--	--	--	--	--
Poor facilities for heating, cooling, mixing chemical rea - ction, drying, pressure etc	3 (100)	--	--	2 (100)	--	--	--
Total	6	9	6	1	1	1	1
No. of Firms in Sample	1	2	2	2	2	1	1

Figures in the brackets indicates percentage to the sample in respective groups

Table 7.4

Age Composition of Major Equipment Used in the Sample.
(As % of the values of equipments less than ten years old)

Industry	Loss making % of the value of equipment less than ten years old.	Profit making % of the value of equipments less than ten years old
Chemicals	10.00	24
Engineering	15.00	20
Electrical	15.00	22
Others	21.00	-

In the case of chemical industry old equipments and poor plant lay out lead to less than the optimum use of plant even when each stage of operation is under optimum conditions of temparature and pressure. Since the instrumentation and control parameters remain old, a lot of time is wasted in between the batch cycles in emptying, cleaning and refilling vessels. Sometimes manual operations of the above type result in health hazards. We also felt during our survey that workers do not have adequate protection while handling toxic materials. The modern system of controls which manipulate variables in different operations is non existent.

Related to this problem is the pollution control system installed along with old machineries which is not sufficient enough to cater to the problems arising from efficient disposal. Whenever voluntary organisations take up this issue remedial measure are shelved on one pretext or another due to lack of funds. The example of Travancore Titanium illustrate[4] the case Enterprises it was seen that the situationthough relatively better is far from satisfactory. Here also the equipments of order vintage predominate.

The cumilative impact of loss making and technology can be illustrated in the case of a ceramic unit. Today the mining of the clay is done in the same way as it was 46 years ago. In the case of manufacture of porcelain table using china clay, the manufacturing process was illustrated in 1956, is still followed. The ship house and preparatory machinery established later had a higher capacity than the process machinery established earlier leading to a mismatch between manufacturing process and preparatory process. This mismatch which remained uncorrected even today, had acted as a major deterrent to optimum utilsation of capacity.

The same story is repeated in the case of crockery finishing which is done with old machineries for colouring, edging, flattering and scintillating. Therefore the crockery product of the company is not only highly priced due to

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[4] laying down the submarine pipe for efficient disposal to deep sea to reduce the intesity of pollution could not be carried out due to high cost. According to company sources the estimated cost for this measure works to Rs.13 crores and then under the existing low profit conditions company cannot raise that much money.

obsolete technology but also is inferior in quality. Ceramics technology had undergone changes in the last few years. The application of ceramics also had increased several times in areas such as cylinder liners for automobiles, biotechnical, logical items, ceramic cutting tools, sanitary wires, glazed tiles etc. The management of the company appointed time to time from bureaucracy largely ignored such prospects or if thought of postponed due to paucity of funds.

(e) Profile of R & D and skill Mix

Most of the factors identified above are direct kind associated with direct production activities. Capital stock is an example. But it should be remembered in this context that obsolescence of capital stock can be remedied to some extent by replacing or substituting the lower skill profile of the work force by higher skill profile.

This is in accordance with the recognition that the firms may undergo substantial changes from one period to another with regard to the skill profile of work force in accordance with the changing modifications and specialisation of output. What is the pattern of changes in the skill-mix of the work force of these enterprises? Information about changing scenario of skill mix was gathered for two time points 1986-87 and 1992-93. Unfortunately, we could not gather information on employment position of all loss making firms. Of the 12 loss making firms, the relevant information we could get only from 9 firms (see Table-7.5).

One interesting feature emerging from the employment selection of loss making firms is that the total work force over time increased only marginally. However, Work force engaged in marketing and administration registred an

increase (21%). The decline was marked in the case of technicians and persons engaged in skilled occupations suffered a set back in particular this tendency was more marked in the case of engineering and rubber based industry. Needless to say the negative impact on productivity was relatively high in these industries.

These observations bear implications. Given the product mix of the enterprises the thinness of the spread of the skilled workers lead to difficulties when it come to improvements in productivity by moderisation and equipment, better design etc.

In the case of profit making industries, the picture is different. The total work force in these enterprises increase by 21% and that of man power engaged in R&D increased by 38%. In the case of chemical industry the increase in the allocation into highly skilled categories appeared better. One reason why a better productivity index for the chemical industry may perhaps be due to this (refer Table-6.17).

In fact, the gains from cost saving is effected by changes in all the integral components of firms activity, one of the necessary forms of contribution is of course R&d activity. Before analysing the R&D activity of the enterprises let us make some preliminary reading of the capacity of these enterprises from the data supplied by these enterprises to undertake development work. It goes without saying that this is a high correlation between the manpower employed and the design improvements. Looked from this angle an analysis of loss making firms revealed that in the design staff in the R&D department only was found in two of the sampled enterprises. One is the electrical goods manufacturing firm and another is an engineering firm. They employ 5 and 3 engineer respectively in

their design department. In fact, the design work constitutes only part of the work of design staff; otherwise they belong to production department.

However a better allocation is found in the case of profit making enterprises. In the case of chemical and electrical industries design staff numbering around 5 and 7 are found engaged in the upgradation of existing technology. This has had a favorable impact on diversification of product structure as seen in the earlier sections. However some loss making enterprises also claimed to undertake R&D work. From (Table 7.6) it is seen that as percentage to sales, these enterprises spend very little on R&D. The loss making enterprises claiming R&D infact do not possess full fledged R&D laboratories. In reality, they are undertaking only the trouble shooting type of activities referred to by the production department. In other words, claims were made regarding R&D. Where it was quite clear that it was a misnomer to describe rather routine type of work for solving manufacturing problems than any genuine R & D. Needless to add even the allocation by profit making enterprises though relatively better is far from satisfactory.

Table -7.5

Change in the skill - mix of loss making enterprises in the Sample Industries

Categories	Chemicals		Electrical		Engineering		Ceramics & Refractories		Agrobased		Rubber		Total	
	1986 87	1992 93	1986 87	1992 93	1986 87	1992 93	1986 87	1992 93	1986 87	1992 93	1986 87	1992 93	1986 87	1992 93
Engineers	18	20	30	34	40	49	10	9	3	3	20	12	121	122 (1.65)
Technicians	80	110	210	208	212	200	80	75	20	22	70	25	622	640 (-2.69)
Unskilled & Semiskilled	100	130	220	238	250	258	58	60	100	100	138	100	866	886 (2.30)
R & D	6	4	8	10	8	5	2	2	3	2	6	2	33	25 (-2.42)
Marketing & Administration	98	132	160	180	120	140	40	48	60	68	142	100	550	668 (21.45)
Total	302	392	648	670	630	652	190	214	186	195	376	239	2246	2366 (5.53)

Figures in the bracket indicates change over 1986-87

Change in The Skill-Index of Profit making Enterprises

	Chemicals		Electricals		Engineering		Total	
	1986-87	1992-93	1986-87	1992-93	1986-87	1992-93	1986-87	1992-93
Engineers	40	52	10	14	8	8	68	72 (5.8)
Technicians	200	250	83	92	48	55	331	397 (19.3)
Unskilled & Semiskilled	350	350	170	210	87	120	607	720 (18.61)
R & D	10	10	5	9	4	6	19	27 (38.33)
Marketing & Administration	190	230	100	130	110	150	400	510 (27.5)
Total	790	934	368	455	257	339	1425	1726 (21.10)

7.2 Benefits from External Linkage

The ability to make improvement in design and manufacturing concepts is not however directly related to explicit R & D programmers. A state sector unit even without formal R & D output can introduce new products, develop process by availing of various scientific services from the repositories as National Research Laboratories, consultancy organisations, horizontal transfer of technology from other enterprises. These can be useful source of new products and improvements in the old process even if the enterprises do not have adequate facilities for research and development activities. This strategy can help the firms to achieve a balance between technological requirements and economic constraints. For example, firms can refer some of its technical issues to universities. They can also do collaborate research with national laboratories or in collaboration with public sector undertakings. Our enquiry revealed that such instances are rare.

Since many of the state sector units do not have critical minimum threshold size R&D, there is all the more reason why they should rely on external innovations pool within the country. As seen from the table-7.7, from 1987-1993 the firm had only 14 such contacts; on the average only two contacts per year by around 16 sampled firms. The loss making had a poor record of only 4 contacts. The largest number of contacts were by the group in the chemical industry. Here two, the tendency had been to send people abroad than using the internal development, hiring the services of local R&D institutions, Local engineering services etc. They lack effective linkage with local cenres that generate and disseminate knowledge is thus clearly reflected in our enquiry. It is ironical to

observe that the generation of technology by Governmental agencies, is not being used by Government's own enterprises. This charry attitude about not utilizing the existing technology for modernisation of plants and diversification led to missing opportunities. Take the case of Travancore Titanium. The existing Titanium plant continues to be used without modernising the technology or diversify the process into products. From the modified and upgraded process the company could have produced Titanium metal which is highly priced today.

Table 7.6

Research Intensity of State Sector Enterprises
(Intensity as Percentage to Sales)

Industry	R & D as % to sales (loss making enterprises)	R & D as % to sales (profit making enterprises)
Chemicals	0.45	1.2
Electricals	0.15	1.2
Engineering	0.33	1.1
Ceramics	0.10	–
Agro based & wood based industries	–	–
Industries	0.10	–
Textiles	0.25	1.10

Table 7.7

Means Used for Creating Technological Capacity 1987 - 93

Means	Chemical		Electrical		Engineering		Ceramics & Refractories	Other	Total
	Profit Making	Loss Making	Profit Making	Loss Making	Profit Making	Loss Making			
1. Internal Development	2	--	1	-	-	-	-	-	3
2. Hiring Services of Foreign Designers	3	--	-	-	1	-	-	-	4
3 Sending Personal Abroad	1	1	2	1	1	-	2	-	8
4 Hiring the services of local research institutes	--	-	-	-	-	-	-	-	-
5 Hiring the services of local engineering consultants	--	-	1	-	-	-	-	-	1
Total	6	1	4	1	2	-	2	-	16

INVENTORY & MARKETING MANAGEMENT

The management of the state sector enterprises becoming in efficient due to the implanting of civil servants and politicians have been thoroughly discussed in the literature[5]. We are not going to repeat those arguments here. However we can not but touch upon another major consequences of this managerial efficiency reflected in the inventory management of state sector enterprises. The managers of the majority of these enterprises were civil servants only in two firms technically qualified personnel are occupying managerial positions. Ironically enough, these enterprises happened to be profit earning ones.

The inventory management has a very high bearing on efficiency, for, excessive investment on inventory (inventories in the form of rawmaterials, work in progress and finished goods) leads to over capitalization. The enterprises in our sample except two had no uniform policies regarding inventories. As such the ratio of inventory to value of production or sales varied widely. The following table-7.8 presents information we gathered from the sample firms regarding the extent of inventory locked up expressed as percentage of the cost of production. The information pertains to loss making enterprises. It is important to point out in this context that the level of inventory in the state sector Enterprises is high compared to the practices followed in the private sector where it is generally around three months cost of production. In our sample, the inventory works out more then five months cost of production. In the case of profit making enterprises the inventory was found less. In the case of chemical industry it

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[5] Report of the committee to review policy for public enterprises. page.16.

was two and a half months cost of production and electrical and engineering roughly three months cost of production.

It is to be remembered in this connection that the major element in the inventory stock in these enterprise is the finished goods. The reason most often advanced is lack of demand. We have shown in the table the average figures only. It is worth mentioning in this context two three firms in our sample do not have even one month stock of raw material inventory. This according to them is due to the lack of working capital. As and when they get order the finished good they rush for purchase.

Table 7.8

Inventory in terms of Number of months cost of production
(percentages)

Industry	1989-90	1990-91	1991-92	1992-93
Chemical	26.3	25.2	24.9	28.80
Engineering	27.30	28.31	17.58	19.50
Electrical	16.38	17.00	25.93	16.00
Ceramics & Refractories	19.32	15.38	18.60	14.82
Agro Processing	16.2	15.8	14.83	18.32
Total	21.22	20.18	18.32	19.16

Let us turn our attention to the major component of inventory namely raw materials. Our enquiry revealed that there is no advance plan drawn up based on material requirement indicating consumption or on the basis of economic ordering of quantity required with regard to the inventory management of equipments, materials and components we found that the loss making firms do not have a full fledged materials management department and qualified personal to assure the quality of brought-in-materials. The managing director takes the major purchasing decision on a limited tender basis. Most often such purchases are getting influenced by considerations other than economics, sometimes leading to purchases more than the required quantity at higher prices. This is one side of the picture. The other side is that inventory management which has to undergo classification, standerdistion, variety reduction, ABC analysis,economic ordering quantity reorder level,disposal of surplus and absolute stock are not done on a scientific basis. As a result damages arising from facility layout, improper codification, and irregular verification is very high. All these call for a coordinated efforts among production department. Material management who purchase materials and are responsible for processing and fabrication of materials. It is to be underlined in this connection that the system of inventory management is done not in a scientific fashion even in the case of profit making companies. In two enterprises where the managing directors are technical personal intimated the scientific ordering and ,management of inventory. Nevertheless, the system has not become full fledged ones yet.

The marketing functions in all producing enterprises have a legitimate place. All the major objectives of the enterprises such as growth and expansion will have to be oriented to marketing goods. Our study revealed that the high cost law productivity syndrome in-built in the production structure is

seem to have been carried forward when it comes to marketing also. Majority of the enterprises is the sample do not have a marketing planning to minimise the risks and optimise profit. An enquiry in to the marketing problems of these firms revealed that the critical elements of marketing like (a) Centralised testing facility (b) After sales servicing facility (c) Adequate sales promotion expenditures etc., are woefully lacking. as in well known the tow factors are important in assuring the quality of the products and the third one determines the marketing success.

Table 7.9

Problems associated with Marketing of Products

Major Obstacles	Loss making industries				Profit Making Industries		
	Chemical	Electrical	Electrical	Others	Chemical	Electrical	Engineering
a) Absence of Centralised testing facilities	1 (100)	2 (100)	2 (100)	1 (50)	-	1 (10)	-
b) Absence of Sales services	-	2 (100)	2 (100)	2 (100)	-	-	-
c) Inadquate Sales Promotion expenditure	2 (100)	3 (100)	2 (100)	3 (100)	1 (50)	1 (50)	1 (50)

Figures in Brackets indicate percentage to the total number of firms in each groups

As the table-7.9 reveals majority of the firms in the sample in the electrical and engineering firms in the loss making category do not have centralized testing facility. In the case of after sales servicing none of firms in the loss making category have this facility. These two major lacunae considerably undermine the 'goodwill' for the products produced by state sector enterprises. Almost all the firms in the sample feel the pinch of inadequate sales promotion expenditure. Needless to say, in a situation in which those enterprises face competition from private sector enterprises these marketing problems put them at a disadvantage.

We have seen in this section how financially vulnerable enterprises are getting caught in the law productivity trap. The interrelationship between the financial and technology performance have been found strong. That is to say one disadvantages leads to the other. An examination of the cost structure enabled us to identify the major cost elements that must have pulled down productivity. In particular, the rising proportion of raw materials and fuel cost indicated increasing inefficiency in the technology used by these enterprises. The problems they confront in the technology front are too many. Our enquiry underlined the major problems such as inability to undertake renovation due to shrinking depreciation fund, irregular delivery of parts and components, poor plant layout etc. Interestingly enough even the profit making enterprises do face some of these problems. The analysis on design development, changing skill mix, R&D allocation showed that the profit making enterprises are better placed in these respects. It appears from our analysis that though profit making category could develop such capabilities in a comparative sense, the situation is far from perfect. A close examination of inventory

management revealed several anomalies leading to leakages. However, some ordering and scientific management was found in this case of enterprises managed by technically qualified personnel. Coming to the marketing management, the major obstacles were identified in the case of loss making enterprises. Needless to say the profit making enterprises also do face such obstacles.

In this context it will be interesting to see a dynamic picture of the transformation of these enterprises into a given situation. In the next chapter we will try to construct such a scenario.

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CASE STUDIES

Ushadevi M. “An economic analysis of modern manufacturing state enterprises in Kerala ” Thesis. Department of Economics, Dr. John Matthai Centre , University of Calicut, 1995

CASE STUDIES

CHAPTER-VIII

CASE STUDIES

In the previous chapter we have been discussing the weak economic base of manufacturing state enterprises in Kerala in terms of finance and technology. However we were discussing only a given situation. In this context we can raise an interesting question. How this particular situation is brought about? High interest burden and technological backwardness represent the outward manifestation of deeper considerations in the development of manufacturing state sector enterprises. This chapter will therefore examine with the help of illustrative case studies of the causationary factors and process responsible for bringing out a given situation. For this purpose we selected four firms. Two belonging to the category of very bad performance (in terms of productivity both partial and total) and one moderate and the other having satisfactory performance. The four firms selected are Trivandrum Rubber works, Metropolitan Engineering Company Limited, Travancore Titanium Products Limited and Travancore Cochin Chemicals Ltd. The first two firms have accumulated loss amounting to Rs.6 crores. Of the latter two one is making profit consistently over the year. However in the case of the other firm we found a fluctuatig trend in profitability performance. This report is based partly on field investigation and partly on various reports such as report of controller and Auditor General of India, Report of Subjeet committees, committees on Public Enterprises etc.

8.1 Trivandrum Rubber Works Limited (T R W).

Trivandrum Rubber Works Ltd is a rubber based industry in the state sector. This company was established in 1935. It is located at Chakkai in Trivandrum district. It was owned by the princely state of Travancore. The ownership of the company changed hands to private and again into parternship form until the Travancore Government took over the administration of the enterprises in 1949. By 1964, the company has taken over two other companies producing cycles. By 1973, the enterprises was brought under Kerala State Industrial Enterprises. This was to facilitate services with respect to general management finance and production from the holding company[1].

At the time of establishment the company had the destination of being the pioneers in the manufacture of cycle tyres in India. The main items of production of the factory consist of cycles and Rickshaw Tyres and Tubes, Moped Tyres and Tubes, Rubber sheetings, Rubber channels, Tread Rubber, Camel back cycle and Moped Renis, Foam products such as matress, pillows and cushions, transmission belts, Truck Tyre flaps, Rubber lining for pressure vessels. Installed capacity of these different products are given below.

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[1] Kerala State Industrial Enterprises, objectives and functions Government of Kerala, 1975. page.24.

Products	Installed Capacity
Cycle Tyres	15 lakhs Nos per annum
Cycle Tubes	18 lakshs Nos per annum
Sheetings	7,200 M Tones annum
Moped Tyres	50,000 Nos per annum
Camel back	800 M Tones
Cycle Rims	6 lakh Nos per annum
Moped Rims	50,000 Nos per annum

The company stopped production in August 1982. Since then, it had been holding an inventory of stores which constituted cycle parts and other raw materials valued of Rs.5.84 lakhs. The company had not taken any action to dispose of the non-moving stock lying idle for 10 years Even the endeavour of the company in reviving the production did not fruitify. Apart from deterioration in quality due to prolonged storage, the company was not only deprived of the expected earning on the sale of this inventory but also had to bear the avoidable carrying cost in the inventory which was of no use to the company.

The company has been incurring losses from the date of its inception. The profit and loss account of this enterprise reveals that loss made by this enterpises is not negligible. The latest position showed that the company has accumulated loss twice its paid up capital. The following gives a brief account of the factors which made the company what it is today.

Let us start from the days of the company took over the cycle rim and Kerala cycles, the productivity levels of cycle plant was abysmally low. To illustrate in the case of cycles manufacture it was observed that none of the parts manufactured by the amalgamated units were upto the standard[2]. We did not get the balance sheet to work out the trends in productivity of the amalgamated units but the consolidated balance sheet of the company since 1973 revealed that capital and labour productivity started recording negative growth rates. At the same time the wage share outstripped the labour productivity. The declining productivity compared to wage share in value added is given in Table 8.1. This increasing disparity has been explained away both by the management and labour in different ways. We shall return to it soon. Meanwhile let us discuss the logical culmination of events. In the seventies when the trouble started the company could have intervened to stall the low productivity phenomenon by a process of (a) technological upgradation of the cycle rim and tube factories in view of declining demand and increasing competition (b) a restraint on the behavior of trade union together with the creation of an environment leading to the development of an attitude appreciate to the predicament so that technically more qualified and complaint personnel with long term perspective should replace the then existing bureaucratic leadership.

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[2] Committes on public undertaking Nineth Report, New Delhi, 1968. page.19.

Table-8.1

Indices of Wages Share and Productivity In Trivandrum Rubber Works

Year	Productivity	Wage shares
1973-74	100	100
1994-75	101	102
1975-76	100	103
1976-77	99	104
1977-78	95	106
1978-79	82	107
1980-81	75	108
1981-82	62	108
1982-83	66	109
1983-84	60	110
1984-85	54	110
1985-86	50	111
1986-87	47	112
1987-88	36	112
1988-89	34	113
1990-91	23	114

But further development gave a queer twist to the fate of the enterprise. In the early 70s, the rubber tyre division of the company had to be closed down due to a major break in the roller and calendering machines[3]. It was also a period that saw the establishment of many rubber factories in South India. Even after the reopening of factory renovation of technology was not done and the production registered short fall due to high price and the poor quality of parts produced. To underline the point let us take the case of tubes manufactured by the company. The company had created Czecholoslovakian machines for manufacturing tubes. This technology could produce only tubes having joints which was unacceptable in the market[4]. The response to such anomalies should have been quick. Though the board of director have been appealing time and again to the Government to release enough funds for modernisation, the typical answer to such requests was considering the correspondence during this period between government and company suggested government was not sensitive enough to extend the timely help[5]. Moreover the general managers most of them on deputation from government had adopted a 'touch me not' attitude in regard to the perspective plan and strategy regarding diversification of product mix.

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[3] Annual Report of the Company 1974-75. page.16

[4] The Report of the Committee of Public Undertaking 1975-76. Secretariate, Trivandrum. page.10.

[5] The Correspondence file between the Company and the Industry Department was styled in an extremely bureaucratic fashion with queries and counter queries and at the end closing the file due to the inability to finance the proposed project.

Parallel developments on the labour front may be discussed now. Between 1969-70 the company was closed down for nearly eight months due to labour troubles resulting in a loss of around Rs.18 laksh. The settlement conditions were onerous given the financial position of the company. For example, it was stipulated that statutory bonus at a higher percentage even when the enterprises was running at loss. This has to be seen in the light of the emerging unhealthy trend of dispropationate share of wages in value added about which we already refereed to earlier (see Table 8.1). The unions which were four in number with political affiliations to different parties had been vying with each to enhance wages and other benefits. It is to be remembered in this connection that not all of them were bind to the predicament of the company. The charges levelled against the management gave certain flashes of mismanagement which was later confirmed by public Accounts committees[6]. The major complaint voiced by unions were for example (a) company's procedure in regard to the purchase of quality inputs (b) Opening up retail outlet in places where it is not warranted due to demand problems (c) Sponsorship of advertisement in newspapers of low circulation to appeas political parties etc. The rescue attempts at this juncture was also not forthcoming from the management nor was there any attempt to reduce high percentage of waste which reached to 9-05 by 75-76 while the permittable limit was only 5%. Both the Public Accounts Committee and State Productivity Council repeatedly urged the company to take comprehensive measures and correct the anomaly by changing the old presses of the fabrication plant and removing the defects in the assembling[7]. Moreover, it was high time for the enterprises to prepare a long time plan to shift product mix from low profitability items to

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[6] Public Accounts Committee Report, op cit

[7] State Productivity Councils report quoted by Public Accounts Committee. op cit.

item of high profitability like moped tyres, scooter tyres etc. Though some attempts to correct the technology problems was initiated the major task of replacement and diversification was postponed due to lack of finance.

The developments since then have been in the direction of failures all around, for, the enterprises had reached a slippery slope evidenced by declining stability ratios[8]. The company without adequate working capital margin could not attract fund from the banks. Therefore the company had relied increasingly on budgetary grants from state government. However government did not stipulate any conditions over its use and hence most of the funds were used to meet the demands of recurring expenditure. By 1975, its working capital was zero. By now the accumalated loss of the company had rise to 185% of paid up capital. The frontic attempts to modernize the plant did not realize mostly because the industrial financing corporation which took some interest in modernisation initially did not step in seriously because of the accumulated loss. The state government also displayed shyness to commit more resources in a sick enterprises. The closure at periodic intervals due to the heavy accumulation of inventry and shortage of working capital have become a regular feature. In the late 80's there were attempts to keep the workers engaged by subcontracting the body building activities of bus engines bought by Transport Corporation.

8.2 Metropolitan Engineering Company Limited

This company was set up in 1958. Originally this company was started as a private company. By 1964 this company moved into government hands after a series of labour troubles leading to lockouts. When the company moved into government hands the capital structure appeared more favorite

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[8] Annual Reports.

than at present, for the dept equity ratio was 2:1 when as it assumed a high order of 7:1 by 1990-91. This company was producing electrical goods with product lines such as fuses, switch gears, electric motors etc. The take over by government was justified then by the possibility of procurement of these goods by the state Electricity Department[9]. An analysis of the financial position of the company during the take over suggested that the stability ratios discussed earlier showed signs of vulnerability. The productivity ratios in particular the labour productivity started recording negative signs[10].

Government was well aware of this predicament, for a technical team appointed to restructure the company's organisational and technological aspects recorded the above mentioned concerns. They were (1) Cost reduction and diversification by adding new products by modernising the technology and infusing new technology. (2) Restructuring the management by appointing technically qualified personal on top managerial positions[11]. In fact the committee noted then that existing switch gears and electric motors where based on obsolete design and energy conserving replacement of whcih should be undertaken on an emergency basis. The total requirement was estimated around Rs.10 Lakhs which the company was urged to mobilise from various sources like government, IDBI, ICICI etc.

The subsequent history of the company revealed that these major suggestions for revamping the units was not implemented. The managing director who was entrusted with

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[9] From the speech of the chairman of the company reproduced in the company balancesheet 1972-73.

[10] Based on balancesheet information.

[11] See balancesheet of the company 1970-71 where major recommendations of the committees are reproduced.

the responsibility of preparing perspective plan taking into account the sources of funds and technology was suddenly transferred. There was time gap of around eight months for the new managing director to join office. Needless to say, the managing directors continue to be administrative personnel. A decade since the take over of the company by government at least five managing directors were appointed. All of them were from bureaucracy, with a minimum duration of two years office. None of the managing directors have had time to push ahead a long term plan incorporating the suggestions for revamping the unit.

Meanwhile the company's performance deteriorated further. The market failures led to huge inventory accumulation and even the major user of the company's products the State Electricity Boards showed reluctance to buy because of the high cost and poor quality of company's products! To illustrate, at the time of the take over the capacity utilisation of the plant was around 60% but in the course of 7 years it fell to 35%[12].

The company all on a sudden woken up to the demand for better technology. The search for the new technology collaboration started on for modernisation of product lines and diversification. IDBI was approached for financial assistance[13]. However IDBI assistance didn't modernize mainly because the enterprise did not satisfy the IDBI norms for eligibility. The disapproval by IDBI on the request for it expansion scheme did not take the enterprise to far with the collaboration efforts.

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[12] Based on balancesheet information.

[13] Based on field study.

The stagnation phase therefore continued unabated. Retrenchment was inevitable. The employees resorted to a massive strike which continued for around 5 months. A political settlement was soon reached according to which government advanced a loan of Rs.10 lakhs to tide over the crisis. The issues of retrenchment was temporarily postponed. While granting this loan there was no stipulation as to its use. The major claim for this loan came from the labour unions. By the time the settlement was reached the wage arrears of the employees accounted to a staggering figure of Rs.6 Lakhs[14]. The postponement of which was not agreeable to the unions and therefore out of Rs.10 Lakhs received around Rs.6 Lakhs was distributed as wages. The rest Rs.3 Lakhs was not sufficient enough for either modernisation or diversification. To illustrate at about at the same time the company negotiated for another foreign collaboration for the manufacturer of switch gear with a Canadian firm but the input of machinery required had an estimated cost of Rs.6.5 Lakhs. This includes the payment of other items such as technology and associated royalty payments. There was a controversy as to whether the terms of collaboration was appropriate or not. The stalmate continued. Meanwhile, the working capital requirements to initial production was met by the remaining Rs.3 Lakhs. But the company could not continues its operation for morethan 3 months, again the same story repeated and today the enterprise is a relief undertaking with 75 employees doing the repair and maintenance works of transformers installed by Kerala State Electricity Board.

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[14] Based on field study.

8.3 Travancore Titanium Products Limited

We have listed the company under the group "Moderate performance". The company was incorporated in 1946 and was managed by a British firm until late sixties. The company though managed by British firm, Travancore Government had granted assistance to the company by owning 53% of paid up capital of the company. It should be reckoned in the connection that until the early sixties, there are only two enterprises producing Titanium Dioxide in the country. The mear monopoly of the enterprise in the production is clear from its large share in the total national output. As on 1992-93, the company employed around 1825 persons with a total capital investment of 2415.58 Lakhs.

The company was unable to attain its full installed capacity due to certain equipment/production bottlenecks in soon of the process stages. As early as in July 1982 a preliminary study was got conducted by Tioxide Group Limited (TGL), U.K at a cost of $ 30,000 to achieve high capacity installation. The company could not process further as TGL instead of getting majority shares in the company for imparting technical collaboration. Hence the proposal had to be dropped.

Again in March 1988, The company engaged Babcock woodall-Duckhem (BWD), UK for an evaluation of the requirements so as to upgrade and increase the capacity utilisation. It was expected that with their technical assistance the company would be in a position to utilise the capacity to the optimum.

The offer of BWD interalia provided that it would prepare a formal report on the existing plan and utility and that once their report was accepted by the company they would

submit detailed costed proposals specifying all remedial/new engineering design work considered necessary to upgrade the plant to its maximum capacity.

BWD furnished a survey report in August 1988 and the company paid the agreed amount of Rs.3,08 Lakhs towards the fee for the report. BWD thereafter pleaded (November 1988) their inability to continue to work with the company and stated that it was possible for any well experienced process engineering contractors to proceed with the expansions based on that report. In the absence of any clause in the agreement to penalise BWD for not fulfilling their obligation, the company could not proceed against them.

The company could not go ahead with the implementation of the scheme as it could not generate the requisite process know-how and technical expertise steadily in the absence of detailed costed proposals for getting the project executed on turn-key-basis. The plant capacity has, thus, not yet been enhanced. Hence the entire amount 3.08 Lakhs spent on preliminary study proved nugatory.

Another wasteful expenditure of the company was the purchase of idle equipment. In June 1985, the company purchase certain canteen equipment for Rs.1.66 Lakhs from A.R.V Industries, Madras. The equipment was intended to be operated with the help of the surplus steam available in the Sulphuric acid plant. As the steam would contain Sulphur dioxide fumes, the employees objected to its use. The equipment had not, therefore, been put to use (March 1993). Similarly in March 1988, the company purchased a trailer with a pay load capacity of 1.5 Tonnes from Quality Engineers, Kochi for Rs.0.92 Lakhs. This trailer was intended to be hauled by a jeep to carry food from the canteen to different parts of the factory premises. The trailer turned out to be too heavy to be hauled by the jeep.

Therefore, the company purchased another vehicle for this purpose in February 1993 at a cost of Rs.1.93 Lakhs, leaving the trailer unutilised. The company has not taken any steps either to put them to use or to dispose them off. The procurement of the equipment and the trailer without assessing their acceptability/suitability have rendered them idle resulting in wasteful expenditure of Rs.2.58 Lakhs.

The performance evaluation of the enterprises in terms of profitability suggested that the trend has been highly uneven of the last 14 years ie, from 1979-80 to 1992-93 for which data are available, profitability was recorded only in 5 years reflecting certain unhealthy trends in the functioning of the enterprise. In the following pages we try to trace the major developments at the enterprise level which had bearing on the fluctuating performance of the enterprise.

A study of the capital structure of the company suggested that debt element in the capital structure assumed a hire proportion in the 80's and commensurably the profitability ratio have shown a tendency to decline. We have used the following ratios to examine the financial health of this firm. The ratios used were 1. ratio between earning before interest or taxes to total tangible assets. This ratio reflects as to whether the assets of the company is being effectively used to generate profit. A smaller ratio may reflect unhealthy trends for future and vice-versa. Similarly, 2. the ratio between current assets and current liabilities which indicates the availability of current assets in rupees for every one rupee of current liability. The current ratio provides an idea of cushon available with the firm to meet its short term liabilities. Therefore, the larger the current ratio, it indicates the financial soundness of the enterprises. Similarly the asset

turnover ratio which reflects the ability of generating sales from the financial resources committed to the firm. As the ratio increases it indicates increasing efficiency of the enterprise.

We have closely observed the movements of this ratios. It was seen that the movements have been uneven but we have found it highly correlated with profitability performance. That is to say the years of dip in profitability is followed by similar trends in financial ratios.

At this Juncture it has to be pointed out that the utilisation of installed capacity has been stagnating for quite sometime. To illustrate though the installed capacity per day is 50 Tones the actual production did not exceed 25 Tones. Though during periods of import restrictions demand problems are not felt periodic liberalisation tent to aggravate and the users tend to import. This has been due to substantial increase in price of the product. We have therefore analysed the cost and out put trends of the enterprise.

At the outset it should be pointed out that our analysis for the last one decade showed that when out put registered a growth rate of hardly 5% the cost escalation has been to the extend of around 20%. While the cost elements have registered increase the major increase has been marked in the case of raw materials and wages. When we examined the productivity of labour in relation to the value added and wage shares as in the case of firms, a mismatch was evident ie, the latter has been exceeding the former[15]. It leads to a situation of draining up otherwise disposable surplus demanded by the requirement of internal development. Here, unless the

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[15] Balancesheet Information.

company step in to correct this anomaly the future will be bleak as suggested by the case studies earlier. The situation now is far from perfect[16]. The other problems arising from technology, organisational matters, managerial aspects etc. are no less important. To illustrate, our enquiry revealed that the technology demands more attention than hitherto been given. For eg. the machineries installed are quite old which not only depress the plant level productivity but also have become pollution prone. Some of these aspects we have already discussed in the section on productivity. The management still continue to be bureaucratic. The point of emphasis is that unless the enterprise embark on a thorough revitalisation program, the future of the company is at stake, perhaps it is likely to face the fate of one of the companies mentioned above.

8.4 Travancore Cochin Chemicals Limited

This company was incorporated in 1951. Total capital invested at the end of 1992-93 is Rs.2,573.65 Lakhs. Presently this company employs 1,786 persons. The main item of production of the company consists of Caustic Soda, Clorine Products etc.

The Capital structure of the company as seen from the balance sheet revealed that for the last 7 years (1986 to 1993), the loan equity ratio remained more or less at satisfactory level of 1.1. The output had registered a growth

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[16] The practice of double increment in place of one stippulated by contractual agreements, higher bonus than what is permitted, and general indisciplned trade union fights are some of the issues voiced by the management and conceded even by some labour union leaders during the course of our field enquiry.

rate of around 17% between the same period. The post tax profitability on the average recorded an increase by 9% of the capital employed. The financial stability ratios also showed a healthy trend.

It may be pointed out in this connection that the high growth of variables we discussed may perhaps reflect the low base characterising long years of stagnation prior to 1975. The state of affairs prevailing then was almost similar to the one described in the case of Trivandrum Rubber Works and Metropolitean Engineering Company Limited. A short description of the state of affairs prevailing in the enterprise will be in order.

But this company have been moving towards a closure due to heavy loss, a situation brought about by several factors internal to the enterprise. The capacity utilisation reached very low levels leading to heavy accumulations of inventory. The productivity levels (Value added per worker) have been declining. The breakdown of plant was a regular feature. Our investigation revealed that at that point of time the age of machineries installed was more than 25 years old. With continuous loss, enough provision for depreciation could not be made and hence increasing obsolescence pulling the productivity levels further down. Added to it was the bureaucratic management which somehow was carrying on the day to day affairs of the company! Needless to say, the labour front with three unions have been indulging in faction fighting and labour management relation have been straining.

Since the joining of a new managing director with considerable managerial experience and with science background the situation was drastically altered. The new manager joined the office after a very hard bargaining with government and on the following conditions.

1. relatively more autonomy in decision making
2. the availability of sufficient funds for technological development
3. a five year tenure appointment[17].

Subsequent events that followed showed that in the following years the company had acquired a new lease of life. To cut a long story short we may only summarise the major events which had a bearing on the performance.

New regime's attention was completely absorbed for sometime on technology aspects. The industrial financing institution and the government approved the scheme drawn for modernisation. Though there was some hesitation on the part of industrial financing institution to commit funds for technology development on the strength of assurance by the management that within a period of two years a favorable debt equity ratio will be brought about, the sanction was granted to this scheme. Necessary funds allocated for revitalisation scheme included replacement of existing machines which led to substantial improvement in the productivity as well as a introduction of new process by means of foreign technical collaboration. This enabled the enterprise to go in for diversification, making use of one of its bye-products. Simultaneously, attention was given to other weak links like inventory management. In the case of inventory management the then prevailing system provided scope for leakages. The practice of limited tendering, rush purchases etc. have given greater scope in the past for corruption is evident from some of subject committee reports[18]. The new regime meticulous efforts to put

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[17] Information based on field enquiry.

[18] Based on subject Committee Report 1975-75 Secretariate Trivandrum. page.5.

the inventory management aspects on a scientific basis. A full fledged material department was created wherein classification, standardisation, economic ordering etc. has been undertaken.

It was in the field of labour relation the biggest achievement of the new management was seen. The warring factions came to an agreement regarding the work norms fixed by the state productivity council. This was possible because of the new dynamic leadership which could convince the unions that an enterprise which is running on a continuous loss can not take care of the interest of the workers. This kind of ethos could carry more conviction with workers with the participation of the workers in the board of management and also setting up joint councils at the shop floor and plant levels to look after safety measures, working conditions, welfare measures, disciplines and measures for improving productivity and efficiency. In short, within two years after the introduction of these measures, the situation showed signs of improvement. From the third year onwards the profit performance recorded positive growth rates along with other major variables like sales, employment etc. Now this company is included in the profit making group of companies.

8.5 Causes for the Differential Behaviour of Manufacturing State Enterprises

Thus we have outlined above the behaviour of four manufacturing state enterprises and seemed that they are behaving in different manner. What explains the failures, stagnation and success stories of these companies? From our narration it may appear that a variety of factors had directly or indirectly contributed to the phenomenon of failures.

The major one appears to be the entrepreneurial style with its bureaucratic organisational structure as seen in the first two cases have become a dead weight to the growth of manufacturing state enterprises. There was no creative response to the problems confronting to the enterprises. When the problems arising from financial technological and other related factors get confounted, the state was found stepping in with the panacia of 'loan capital' which was not even utilised properly for productive investment. The slippery slope on which the enterprise was placed by the acts of omission and commission by sate government in fact demoralised the workers is evident from their strategy of maximising the short-term gains. In fact the same environment followed in the case of Travancore Titanium Products Limited having a monopoly position in the product market and hence the monopoly advantage could not be spun into a surplus generating proposition.

However, we found some difference in the case of Travancore Cochin Chemicals Limited. The major factors for this difference appears to be due to change in managerial strategy and associated changes that took place in the sphere of finances, technology, labour management relations etc. Though this example cannot be emulated in all respects, it points towards the need of a package approach in the development of manufacturing state sector enterprises.

8.6 Linkage Pattern of State Enterprises

In this part we examine some macro issues which has some bearing on the development of sate sector enterprises. The industrial development strategy of the state however did not consolidate the already initiated industrial base but moved into modern sectors like Engineering, Chemicals and

Electronics. Except in the case of electronics in other sectors investment was spread very thinly. For example, engineering and electrical industry received only 12.24 crores (hardly 6% of state investment compared to other areas). Perhaps one aspect of the linkage patterns that has relevance to policy measures is the interrelationship among these units in the industrial system. This relationship need not be and in effect not always competitive. The complimentarities largely arise from joint interest which in turn depends on the strategy of product mix patterns and production process in terms of input mixes and thereby provide a nuclei of economic expansion.

As seen above in the context of Kerala there had been thin spreading of capital in areas where multiplier effect is very high. Engineering industry is typical of this under investment. The point can be illustrated by the estimate we had made on linkage pattern of manufacturing state enterprises. Linkage pattern can be crudely worked out in terms of their input purchase and output disposal from within the state and the rest of the economy. Table 8.2 shows the firms in our sample show extremely weak linkage with the regional economy in terms of purchase of inputs. As seen from the table, in the case of units belonging to engineering and electronics, a substantial proposition of inputs necessary for production is procured either from outside the state or outside the country. The fact of the case is that policy instruments have not being used to stimulate the generation of the industrial cluster as a necessary program for creating and fostering local activities. We may also add here emphatically that the high inventory sales ratio of the enterprises in the sample may be due to the inadequate growth of interrelated industries, a hypothesis which need to be examined in depth.

Table 8.2

Backward Linkages Among Manufacturing State Sector Enterprises in Kerala

Industry	Purchased from within the state (%)	Purchased from outside the state	Imported (in %)
I. Chemicals	20.00	59.00	21.25
II. Engineering	8.00	90.00	2.00
III. Electricals	22.00	72.00	5.00
IV. Agro based Industries	70.00	30.00	00.00

8.7 Forward Linkages and Procurement Policy

When it comes to disposal of output also, we have not found a strong linkage with the needs and requirements of governmental departments. The products of these 'uneconomical' enterprises when faced with unequal competition with private enterprises, government as user of the enterprise's products, can procure them. The linkages with the user government departments could have served as an outlet for producing enterprises as well as can exert pressures on producing enterprises to improve quality. This two way approach can to a large extent help these enterprises to become more viable in the long run.

In our enquiry almost all firms have been emphasising the difficulties faced in the marketing of their products and the uncertain attitude of the government in assuring a stable market for their products. It is to be remembered in this context that utility departments of state government can be the major users of these products. To illustrate, there are three firms producing electrical goods (KEL, Metropolitan Engineering Company, United Electrical Industries) such as the tension transformers, switch gears, electricity metre, irrigation structure etc that can be procured by State Electricity Boards. Again products produced by the Kerala Drugs and Pharmaceutical and Pharmaceutical corporation can be procured by government hospitals. Like wise, the wood products of Travancore Plywood Limited and Forest Industries Limited, Textiles goods of Kerala Garments and Sitaram Textiles can be procured by various government departments. Pipes supplied by Kerala Premo Pipes Limited can be procured by Public Works Department. Similarly, products of Steel Industries and Kerala Engineering Works can be procured by various goverment utility departments. Such examples can be multiplied.

We may mentioning here the concerns voiced by some of the enterprises. Let us illustrate the case of Metropolitan Engineering Company which is started with producing switch gears, isolators, fuses and fire extinguishers. The major customers of the product was State Electricity Board. Because of the vagaries in the purchase policy of Kerala Electricty Board the company faced the problem of under utilisation of capacity and higher lead time in clearing the stock. This enterprise is now a sick unit.

Let us take the case of another firm in the modern manufacturing sector producing Pharmaceutical. It is facing a serious crisis due to interdepartmental rivalries. The firm under the ministry of industries have been supplying medicines for the requirements of government hospitals. The attempt of the health ministry to bring the firm under its control as cancellation of orders, placed on pharmaceutical firms by the health ministry. The outcome was cancellation of orders, placed on pharmaceutical firm by the health ministry. The company thereby lost 95% of its market and is now on the brink of collapse.

We can see many such examples. The question is had there been a strong linkage with the using departments, could this crisis have befallen on them? But to make linkages stronger, according to user departments the prices offered should correspond to the reality. Even whwn state enterprises are given a price advantage of 10% over the private competitors the products cannot sell to the users department of government. This situation once again tells upon the all pervasive backwardness of state sector enterprises which can only be remedied by purposeful and planned intervention.

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SUMMARY OF FINDINGS AND CONCLUSIONS

Ushadevi M. "An economic analysis of modern manufacturing state enterprises in Kerala " Thesis. Department of Economics, Dr. John Matthai Centre , University of Calicut, 1995

SUMMARY OF FINDINGS AND CONCLUSIONS

CHAPTER - IX

A SUMMARY OF FINDINGS AND CONCLUSION

In the foregoing chapters we have discussed the various facets of the performance of the state enterprises in Kerala with special focus of attention on modern manufacturing state enterprise in Kerala. It is now attempted here to draw the threads together in the form of a brief summary of findings.

The objective of the present study is to evaluate the performance of the state enterprises in Kerala during the past few decades. It specifically focuses attention on modern manufacturing state enterprises. Factors that has led to poor financial performances, whether lack of technological expertise and scientific knowledge been a hindarance in the growth of state sector understandings, the means by which state enterprises have access to new technology and how efficient are these means, the underlying mechanism by which state enterprises are becoming sick etc are examined in this study.

Results:-

From the forgoing analysis we can conclude that the performance of state sector enterprises has been unsatisfactory. Social and economic returns have been low and in many cases huge losses have been incurred, output is far below the capacity and the cost are high. The inefficiency of the state sector enterprises and the reason advanced to explain

it are proverbial. These includes bureaucratization of management, politicalisation of recruitment, irresponsibility of trade unions, lack of people's sentimental attachment to the state sector enterprises which is basically meant for the people at large. Apart from these rehtorical explanation, no concrete economic analysis is available on state sector enterprises in the context of Kerala. Therefore, we hope our study will be modest contribution in identifying the nature of problems affecting the state sector enterprises.

In the introductory section we have seen that in the absence of major investment from private and central sectors, state has taken major initiative in establishing several industries in the modern manufacturing sector. However, proper functioning of state sector units in a manner such that it creates sufficient surplus is essential for Kerala to carry forward the task of industrialisation. But majority of the enterprises are incapable of generating any surplus. The major factors contributing to this phenomenon as revealed by the study are as follows.

Since Kerala is industrially backward the desire of government was to speed up industrialisation. With this desire the state has diffused the available resources very thinly across many industries. This had resulted in the formation of an inverted pyramid types of a capital structure characterised by top heavy loan capital and a thin base of paid up capital. In turn, this has also led to build in claims for more interest, resulting in further dependence on governmental loans for working capital. As substantiated by our analysis this has constrained the financial health of the enterprise by imposing a heavy interest burden resulting in vulnerable financial ratios. Some of enterprises accumulated loss while remaining in a sick state for a long time.

However this does not at all imply that sufficient explanation on loss making phenomenon is provided by debt equity ratio. There may be equally strong explanatory variables such as technology, organisational aspects, price policy etc. Since all the above factors cannot be explained in the study, we confirmed to a major aspect of performance namely technology. Our analysis of the technological aspects revealed that they face serious problems in the relm of technology. The interrelationship between the financial performance and technological performance have been found very strong. The greater the extent of loss, the more profound technological backwardness and viceversa.

An analysis of the cost structure indicated rising cost of raw materials and fuel reflecting the increasing inefficiency in the technology used. The major problem in the technology front was the inability to undertake renovation due to shrinking depreciation fund; irregular delivery of parts and components , poor internal scheduling, inadequate jigs and fixtures, poor plant layout etc. Interestingly enough we found that even some of the profit making enterprises do face such problems. A favourable skill-mix, later R&D allocation, designed development etc., were some of the capabilities developed by profit making enterprises.

The information gathered on other aspects like inventory management etc revealed that in the case of loss making enterprises a lot of disorder in inventory management was located, this leading to leakages and economic waste. However we found some difference in the case of profit making enterprises! Some of them are managed by technically qualified people. Marketing management is another area where a lot of difficulties these enterprises face irrespective of whatever they are loss making or not.

Our analysis also presented a dynamic picture of transformation of state enterprises into a given situation of profit or loss making with the case study of four enterprises. We could identify a variety of factors which had directly or indirectly contributed to the loss making phenomenon. The insensitivily of the organisational structure to gear up to the demands of production structure appear the major reason for the backwardness. This dichotomy is also present in the case of an enterprise having monopoly advantage in the product market. It is informative to report in this connection that this synchronisation was evident in the case study of another firm whose performance was found satisfactory.

Another major finding highlighted in our study is that state had diffused investment in all sectors. This diffusion took place largely during the post independent period. The industrial development strategy of the state instead of consolidating the already indicated industrial base chose to move into several modern sectors ignoring linkages that largely arise from joint interest; consolidation of which depends upon the strategy of product mix patterns and production process in terms of input mixes and thereby provide a nuclei of economic expansion. But this nuclei of economic expansion was not being appreciated by the planners of the state sector, for state sector has only been spreading investment thinly in areas where multiplier effect is very high. Engineering Industry is typical of this under investment. This point is illustrated by a case study of linkage patterns of state sector enterprises. It is seen that in the case of units belonging to engineering and electronics, a substantial proportion of inputs necessary for production is procured either from outside the state or outside the country. The firm in the sample showed extremely weak linkage with regional economy in terms of purchase of inputs.

The point of emphasis is that the policy instruments have not been used to stimulate generation of industrial cluster as a necessary programme for creating and fostering local activities.

Our anlysis also give information that there exist no strong linkage with the needs and requirements of user Government departments for the disposal of output. Such linkages could not only have served as an outlet for producing enterprises but more importantly can exert pressure on them to improve quality. This two way strategy could have helped those enterprises to become more viable. We have illustrated with several examples how the lack of effective linkage harms the long run interests of enterprises.

In short, the slippery slope of state sector enterprises as we have seen is financial management, which sets the ball of inefficiency rolling. This spreads into the management, marketing, technology and linkages aspects all of which accentuates the crisis. Once the crisis set in reflected, as the case studies suggested it assumes un dimensional character not being transimitted to organisational sphere.

It is seen that the organisational setup remains insensitive to the structural demands of the enterprises. Why is it so? An answer to this question necessitate an examination of the existing organisational set up. At the outset we would like to point out that the administrative aspects of state sector enterprises are vested in around ten administrative departments. Majority of them, however are with the industry ministry. Needless to say the situation is chaotic at present. The interaction between the Government and the enterprises is run through the Board of Directors on which are represented the Government representative departmental most often secretary will

be the chairman and the senior bureaucrats as chief executives. Therefore the interface between the Government and enterprise will be caught in a classical conflict between autonomy and accountability and the system will be perpetuated by other built-in-disadvantages arising from lack of professionalism, discontinuity of leadership etc. It is not realistic to expect good performance of an organisation if it is devoid of leadership.

In this context we have to mention some of the organisational reforms introduced in the past to strengthen the interface between Government and the enterprise and thereby the efficiency of state sector units. The holding company concept was introduced in the case of few enterprises with the formation of Kerala State Industrial Development Corporation in 1972. The objective has been that the holding company will render management services to the companies under its fold in respect of general management, technology industrialised relations and marketing. But the experience has shown that when the concept is introduced to a Letrogenious group of firms with differing product mix its usefulness is limited. The organisational reforms was the establishment of Public Enterprises Board in 1979 and Bureau of Public Enterprise in 1982 with the objective of evaluation, monitoring and coordination. But it produced only limited result because these model agencies possessed either adequate experience or technologically qualified personnel. More over the decision making regarding the new presents etc has mostly done by political considerations and economic rationale in such situations have to receed back. However, it goes to the credit of Bureau of Public enterprises to present a review of public enterprises annually from the completed annual reports of

state enterprises. Needless to say, the picture presented is still incomplete, for one third of the enterprises do not complete the annual reports in time which in turn represent a major administrative lapse.

Workers participation in the Director Boards is another experiment introduced in a limited scale. We may also mention that in this context. Workers participation in the Director Board has produced only limited result. According to the official sources further scope for its extention is getting limited because of the inter union rivalries etc. It may be added in this connection that such experiments were without creating an environment for their motional involvement etc. To illustrate, giving the workers a stake in the form of share holding, working together committees by representatieves of recognised labour unions etc. ought to have produced better results there giving mere representation in the Director Board.

Recognising the above policy limitations, there are a few initiatives at the Governmental level to introduce organisational innovations like enterprises group (bringing together enterprises in the same sector under common Chairman, a substitute for holding companies) professionalism in management widen the scope of labour participation in management etc. There are also some initiatives in introducing the Memorandum of understanding (M O V) in line with the steps undertaken by Central Government controlled enterprises.

For healthy interaction between the structural and organisational aspects of state sector enterprises in Kerala it is necessary to strengthen and sensitise the

interface between the Government and enterprises by organisational reforms. This can be spun of into an industrial advance? Unless this is done the future industrialisation of the state sector may not get the necessary lead. As is obvious, such a lead greatly depends on the political and social environment of the region.

The need of the day is to take care of every unit of man, machine, material and money of this sector to a maximum profit extent. This step could go a long way in achieving the better results. Better working conditions to the labour force of this sector is of vital importance. The labour force should be motivated in such a way that they should start feeling as their own concern as a part and parcel of their life as Japanese rightly did realise that labour is as important as profit. This could lead to maximum efficiency, productivity and production which is the dream of every economy and Kerala is no exception to it.

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Bureau of the Publilc Enterprises, Trivandrum.

APPENDICES

Appendix - 4.1

Capital Investments & Employment in respest of Government Qwned Companies

Sl-no	Name of Company	Capital Investments (Rs in lakhs) As on 31-3-1992	As on 31-3-'93	Employments (in Nos) As on 31-3 1992	As on 31-3-'93
1.	Kearla Ceramics Ltd.	1821.65	1734.20	546	531
2.	Kerala Soaps & Oils Ltd.	2060.40	Na	590	Na
3.	Travancore Plywood Industries Ltd.	238.94	238.94	565	560
4.	Kerala State Drugs & Pharmaceuticals Ltd.	2000.19*	Na	579*	Na
5.	Kerala State Ditergent & Chemicals Ltd.	919.11	Na	271	Na
6.	Kerala Stae Salicylates & Chemicals Ltd.	2001.00	2289.68	147	125
7.	Kerala Electrical & Allied Engineering Co. Ltd.	2197.22	2909.18	1108	1204
8.	Steel Industries Kerala Ltd	2809.44	2933.40	428	419
9.	Autokast Ltd.	3315.82	4822.46	552	543
10	Steel & Industrial Forgings	1547.00	1543.00	220	262
11.	Keral Mineral & Metals L	16709.56	17875.37	1125	1139
12	Malabar Ciments Ltd.	6166.32	5476.62	1065	1062
13.	Sitaram Textiles Ltd.	1191.20	650.72	599	712
14	Trivandrum Spinning Mill	610.65	645.20	481	465
15.	Scooters Kerala Ltd.	376.28	389.05	102	100
16.	Kerala Automobiles Ltd.	1537.46	1600.08	400	399
17.	Kerala Clays & Ceramics Products Limitted.	53.40	55.28	393	385

* Last Year's Figure

Source: Report of the Comptroller and Auditor General of India, Govt. of Krala

Appendix - 4.2

Performance of Government Owned Companies in respect of Production and Sales Turnover 1991 - 92 and 1992 - 93 (Rs in Lakhs)

Sl No	Name of Company	Value of Production		Sales Turnover	
		1991 - 92	1992 - 93	1991 - 92	1992 -93
KSIE Group					
1	Kerala Soaps & Oils Limitted	492.55	Na	523.00	Na
2	Kerala State Drugs & Pharmaceuticals Ltd.	Na	Na	Na	Na
3	Kerala State Ditergents & Chemicals Ltd.	75.92	Na	67.40	Na
4	Travancore Plywood Industreis Ltd.	185.00	61.75	182.00	83.23
5	Kerala Salisylates & Chemicals Ltd	43.19	Nil	38.77	4.66
Electricals					
6	Kerala Electrical & Allie Engineering Co. Ltd.	Na	3908.84	3900.63	3768.50
7	Steel Industries Kerala Limitted	1709.93	1431.37	1804.83	1478.05
8	Auto cast Limited	715.30	664.13	724.14	657.19
9	Steel & Industrial Forgings Ltd.	905.00	834.00	955.30	794.00
Chemicals					
10	Kerala Minarals & Metal Ltd.	982.16	1295.00	916.49	1013.55
11	Malabar Ciments Limited	5619.27	4832.00	5530.91	7423.12
Textiles					
12	Sitaram Textiles Ltd	982.16	1295.00	916.49	1013.56
13	Trivandrum Spinning Mills Ltd.	509.50	501.23	542.75	413.18
Engineering					
14	Scootes Kerala Limitted	98.80	119.42	86.55	134.51
15	Kerala Automobiles Limited	430.35	994.39	568.09	804.00
Ceramics & Refractories					
16	Kerala Ceramics Limitted	466.48	615.44	422.79	534.80
17	Kerla Clays & Ceramic Products	100.96	122.94	118.37	134.99

Source : Government of Kerala, Economic Review 1993 State Planning Board Thiruvananthapuram

Appendix - 4.3

Production & Capacity Utilisation in Government Owned companies during 1991 - 92 and 1992 -93

Sl No	Name of Company	Name Of Product	Unit	Installed Capacity 1991 -92	Installed Capacity 1992 - 93	Production 1991 - 92	Production 1992 -93	Capacity Utilisation (%) 1991 -92	Capacity Utilisation (%) 1992 -93
1.	Kearla Soaps & Oils Limitted.	i. Soaps	Mt	9000	Na	2637	Na	29.30	- -
		ii Glycerine	Mt	260	Na	17	Na	6.54	- -
		iii Shark liver oil Products	Mt	300	Na	47	Na	15.67	- -
		iv Vanaspathy	Mt	3000	Na	- -	Na	- -	- -
2	Kerala State Drugs & Pharmaceuticals Limted	i Vitamin 'A'	Mmu	Na	Na	Na	Na	Na	Na
		ii Tablets	Lakh Nos	Na	Na	Na	Na	Na	Na
		iii Granules	Kg	Na	Na	Na	Na	Na	Na
		iv Powders	Lakh Ltrs	Na	Na	Na	Na	Na	Na
		v Liquids	,,	Na	Na	Na	Na	Na	Na
		vi Injectables	Lakh Nos						
		a. Bottles	,,	Na	Na	Na	Na	Na	Na
		b. Ampules	,,	Na	Na	Na	Na	Na	Na
		vi(a) Capsules		Na	Na	Na	Na	Na	Na
3.	Kerala State Diter - gents & Chmicals Limted	i Cake/Bar	Mt	7200	Na	136	Na	18.89	Na
		ii Spray dued Powder	,,	10800	Na	384	Na	3.65	Na
		iii High Density Powder	,,	1800	Na	383	Na	21.28	Na
4.	Travancore Ply- wood Industries Limted.	Plywood	Lakh Sq. Meters (4 mm Basis)	27.38	27.38	3.44	1.02	12.50	3.74
5.	Keral State Salicy- lates & Chemicals Limitted	i Salicylates	Mt	1000	1000	52.37	Nil	5.24	- -
		ii Aspirin	,,	1000	1000	18.9	Nil	1.89	- -
		iii Sodium Salicy- cilates	,,	250	,,	,,	,,	,,	,,

Sl No	Name of Company	Name Of Product	Unit	Installed Capacity		Production		Capacity Utilisation (%)	
				1991 -92	1992 - 93	1991 - 92	1992 -93	1991 -92	1992 -93
6	Kerala Electrical & Allied Engineering Company Limited	i Distribution Transformer	KVA	12000	12000	120793	215111	100.66	179.20
		ii C.I Spcials	MT	1500	1500	210	725	14.00	48.33
		iii Steel structures	MT	1200	1200	193	159	16.08	15.75
		iv Glavanized Structures	MT	--	2500	--	--	--	--
		v Brushless Alternators	Nos	1500	3000	1071	1421	71.40	47.36
		vi HRC Foses	„	--	--	--	--	--	--
		vii Electrical Wirin Accsessories	„	133000	133000	350440	213898	263.49	160.82
		viii Alternators(GP)	„	3000	3000	--	572	--	19.07
7	Steel Industries Kerala Limited	i Fabricated Steel Structures	MT	3000	3000	727	977	24.23	32.57
		ii Ferrous Scrap	„	16000	16000	3703	647	23.14	4.04
		iii Castings	„	1200	1200	675	738	56.25	61.50
8	Autokast Limited	Steel Castings	MT	18000	18000	3920	3074	21.78	17.07
9	Steel & Inidustrial Forgings Limted	Carbon & Alloy Forgings	MT	7500	7500	2800	2208	37.33	29.44
10	Kerala Minerals & Metals Limited	i Titanium Dioxide	MT	22000	22000	10011	11412	45.50	51.87
		ii Illmenite	„	25000	25000	7139	6426	28.56	27.70
		iii Rutile	„	2400	2400	323	357	13.46	14.88
		iv Zirion	„	1500	1500	--	--	--	--
		v Leucoxene	„	300	300	--	--	--	--
		vi Monazite	„	240	240	--	--	--	--
11	Malabar Cements Limited	Portland Cement	Lakh MT	4.20	4.20	3.16	3.59	75.24	85.47

Sl No	Name of Company	Name Of Product	Unit	Installed Capacity 1991-92	Installed Capacity 1992-93	Production 1991-92	Production 1992-93	Capacity Utilisation (%) 1991-92	Capacity Utilisation (%) 1992-93
12	Sitaram Textiles Limited	i Cotton Yarn ii. Cotton Fabrics iii Processing	Lakh Kg Lakh MTs „	4.20 16304 spindless 40000 Meters/day	4.20 16304 Spindless 40000 Meters/Day	3.16 9.86 51.84	3.59 11.52 45.19	57.24 -- --	85.47 -- --
13	Trvandrum Spinning Mills Limited	Cotton Yarn	Lakh Kg	25200 Spindless & 800 Double Spindless	25200 Spindless	7.09	6.67	--	--
14	Scooters Kerala Limited	i Scooters ii Sheet Metel Items	Nos MT	-- --	-- --	-- --	-- --	-- --	-- --
15	Keral Automoblies Limited	Three Weelers	Nos	6000	5400	1490	1875	24.83	34.72
16	Kerala Ceramics Limited	i Kaolin ii Porcelin iii China Clay iv Sanitary Wares	Mt „ -- --	18000 595 -- --	18000 595 -- --	8898 537 -- --	10209 535 -- --	49.49 90.25 -- --	56.71 87.91 -- --
17	Kerala Clays & Cernic Products Ltd	China Clay	Mt	--	--	11451	11353	--	--

Source : Government of Kerala, Economic Riview 1993. State Planning Board Thiruvananthpuram

Appendix - 4.4

Capital Invested and Employment in respect of Government Majority Companies in Kerala

Sl-No	Name of Company	Capital Invested (Rs in Lakhs)		Employment in No's	
		As on 31-3-1992	As on 31-3-1993	As on 31-3-1992	As on 31-3-1993
1	Ketron Counters Limited	800.04	NA	310	Na
2	Keltron Electro Ceramics Limited	483.74	512.40	103	103
3	Keltron Crystels Limited	359.91	NA	126	Na
4	Keltron Magnetics Limited	85.15	"	33	"
5	Keltron Power divices Limited	906.69	"	154	"
6	Keltron Rescstors Limited	283.95	"	49	"
7	Ketron Rectifires Limited	783.14	"	107	"
8	Keltron components Limted	1352.19	"	373	"
9	Sidkel Television Limited	36.00	"	78	"
10	Steel Complex Limited	471.89	"	637	"
11	Metal Industries Limted	62.30	63.66	125	123
12	Travancore Titanium Products Limted	176.75	NA	140	Na
13	Travancore Cochin Chemical Limted	912.27	831.44	1204	1189
14	Travancore Ciments Limited	50.00	50.00	555	538
15	Metropolitan Engineering Company Limited	260.00	254.40	152	151
16	Traw Cable Company Ltd	4476.50	4989.52	292	286
17	United Electrical Industries	403.76	402.08	529	516
18	Transformers & Electricals Kerala Limited	5490.36	5650.56	1622	1640
19	Kerala Construction Compo-ents Limited	58.03	40.29	131	127
20	Chalakudy Refractories Limited	577.23	616.91	120	117
21	Travancore Sugars & Chemical Limted	107.35	Na	500	Na
22	Forest Industries (Travancore) Limited	58.34	66.97	131	129

Source : Government of Kerala

Appendix - 4.5

Performance of Govrnment Majority Companies in terms of value of Production and Sales Turnover 1991 - 92 & 1992 -93

Sl No	Name of Companies	Value of Production 1991 - 92	Value of Production 1992 - 93	Sales Turnover 1991 - 92	Sales Turnover 1992 - 93
	Electronics				
1	Keltron Counters Ltd	164.69	Na	201.93	Na
2	Keltron Electro Ceramics Ltd.	214.96	328.58	213.19	412.01
3	Keltro Cristals Ltd	170.40	Na	112.20	Na
4	Keltron Magnetics Ltd	56.75	,,	80.53	,,
5	Keltron Resistors Ltd	96.23	,,	112.70	,,
6	Keltron Power Divices Ltd	--	,,	--	,,
7	Rectifiers Ltd	--	,,	--	,,
8	Keltron Component Complex Ltd	1880.37	,,	1940.26	,,
9	SIDKEL Televisons Ltd	--	,,	--	,,
	Iron and Steel				
10	Steel Complex Ltd	4292.70	,,	4888.88	,,
11	Metel Industries Ltd	126.40	122.48	121.73	121.88
	Chemicals				
12	Travancore Titanium Products Ltd	4612.12	Na	5214.69	Na
13	Travancore Cochin Chemical Ltd	4470.70	6886.07	5000.77	6351.90
14	Travancore Ciments Ltd	1762.25	2138.00	1780.72	2094.70
	Electrical & Cables				
15	Metropolitan Engineering Company Ltd	188.83	157.60	179.62	187.35
16	Traco Cables Company Ltd	2960.29	4193.11	2737.80	4320.46
17	United Electrical Industries Ltd	790.77	766.64	802.81	746.02
18	Transformers & Electricals Kerala Ltd	5788.50	794500	5798.92	7393.00
	Cermics & Refractories				
19	Kerala Constructions Components Ltd	--	Na	71.50	81.35
20	Chalakudy Refrctories Ltd	27.75	7.80	26.16	12.68
	Agrobased				
21	Travancore Sugars and Chemicals Ltd	618.54	Na	619.87	Na
	Wood Based Industries				
22	Forest Industries (Travancore) Ltd.	163.22	108.79	168.78	185.00

Source : Govt of Kerala Op it

Appendix - 4.6

Production & Utilisation in Government Majority Companies 1991 - 92 and 1992 - 93

Name of Company	Name of Product	Unit	Installed Capacity 1991 - 92	Installed Capacity 1992 - 93	Production 1991 - 92	Production 1992 - 93	Capacity Utilisation (%) 1991 - 92	Capacity Utilisation (%) 1992 - 93
Keltron Counters Ltd.	1 Counting Devices 2 Defence Equipment	Lakh Nos Nos	Na ,,	Na	0.27 613	Na ,,	-- --	-- --
Keltron Electro Ceramics Ltd	1 Ceramic Capacitors 2. Thermistors 3. Transduires	Million Pieces Nos ,,	80	80	49 242	68 1662	61.25 --	85.00 --
Keltron Electro Ceramics Ltd	1 Communication Cristals and Watch Cristals 2 Digital Electronic Watches	Lakh Nos 000s	20.84 45	Na ,,	11.09 1	Na ,,	53.21 2.22	-- --
Keltron Magnetics Ltd	1. Colour TV Delay Lines 2. Servo Controlled Voltage Stablisers 3. UPS	Lakh Nos Nos ,,	27.5 5000 100	,, ,, ,,	0.01 838 13	,, ,, ,,	0.04 16.76 13.00	-- -- --
Keltron Power Devices Limitted	Power Transistors	Lakh Nos	NA	,,	--	,,	--	--
Keltron Resistors Ltd	Carbon & Metal Film Resistors	Million Nos	142.00	,,	67.55	,,	47.57	--
Keltron Reflectors Ltd	1 Silicon Dioxide 2. Electronic Equipments	Lakh Nos Nos	NA NA	,, ,,	Na Na	,, ,,	-- --	-- --
Keltron Components Ltd	Alluminium Electronic Capacitors	Million Nos	150.00	,,	75.02	,,	50.10	
SIDKEL Telivisons Ltd.	Telivision Sets	Nos ,,		Na	,,	Na	--	--
Steel Complwx Lilited	Steel Bullets	Tonnes	55000	,,	46389	--	84.34	--
Metal Industries Limted	Agricultural Impliments	MT	250	218	515	339	206.00	155.50

Cont . on next

Appendix - 4.7

Sectorwise Summary of Performance of Public Sector Enterprises

Sl No	Sector	No of Units	Total Employ-ment	Paid up Capital	Capital Invested	Units on Profit		Units in Loss		(Rs in Lakhs) Net Profit/ Loss	No. of Divident Declared Enterprises	Contribution to Exchequer	
						No of Units	Amount	No of Units	Amount			Central	State
1	Development & Infrastructural	10	4550	14158.76	57383.94	5	274.79	5	413.96	-139.17	2	13.75	47.90
2	Ceramic & Refractories	6	1548	1832.58	2936.35	1	7.46	5	109.09	-101.63	1	70.82	28.78
3	Chemical Industries	11	7434	8387.00	33852.24	4	1856.87	7	2803.31	-946.44	3	4424.59	1679.43
4	Electrical Equipments	5	36963	3898.04	13495.39	2	93.39	3	466.80	-373.41	-	3283.48	264.18
5	Electronics	10	3991	8349.93	18497.22	2	129.20	8	2931.64	-2802.44	1	888.98	148.22
6	Engineering	11	3484	6488.47	14252.53	4	275.44	7	1968.12	-1692.68	1	578.82	272.51
7	Plantation & Agro Based Units	12	13881	5477.66	7316.91	6	1208.49	6	302.54	905.95	1	96.56	430.14
8	Textiles	4	3029	1615.86	3877.31	-	-	4	286.62	-282.62	-	153.92	52.04
9	Wood Based Industries	3	1870.864	251.30	1478.62	1	4.01	2	216.41	-212.40	-	80.64	25.31
10	Traditional Industries	7	52678	4210.14	5956.94	3	625.05	3	55.18	569.87	-	50.21	294.08
11	Trading Units	3	3263	981.60	1866.60	2	240.24	1	2048.00	-1807.76	2	2178.70	7871.00
12	Welfare Agencies	7	277	2112.71	3166.51	1	3.90	5	31.25	-27.35	-	-	-
13	Public Utilities	5	67929	66865.96	231830.02	1	15.84	4	12418.15	-12402.31	-	-	-
14	Others*	5	100	829.79	899.79	1	0.06	2	19.04	-18.98	-	-	-
	Total	99	166721	125459.80	396760.37	33	4734.74	62	24066.11	-19331.37	11	11820.47	11113.59
	Less : Statutory Bodies	8	69173	70147.42	259529.66	1	80.69	5	12433.60	-12352.91	1	-	0.10
	Companies	91	97548	55312.38	137230.71	32	4654.05	57	11632.51	-6978.46	10	11820.47	11113.49

Note :

1 : Column 3 = Column 7 + Column 9. The difference any is due to information not avilable or units not yet commenced commercial activities

2 : * Only 5 units which are working are included

Source : Rivew of the Public Enterprises in Kerala 1993 -94. Bureau of Public Enterprises, Trivandrum

Appendix - 4-8

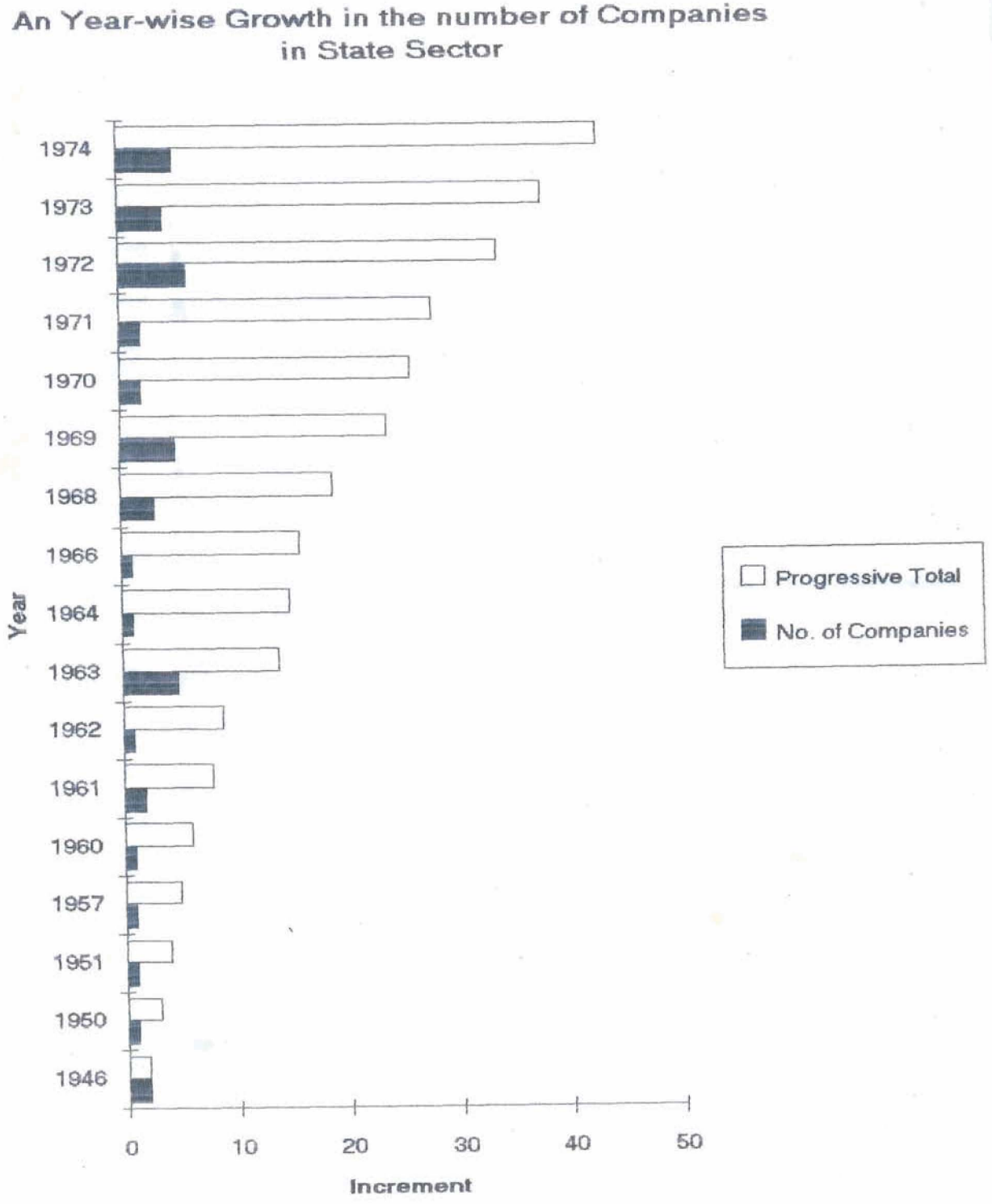
An Overview of Performance of Public Enterprises in Kerala [(1982 -83 to 1991 - 92) (Rs. in lakhs)]

Review Year	No. of Units	Total Em-ployment	Equity	Capital invested	Units on Profit		Units on Loss		Net Annual Loss after adjusting profit	Divident Recipts	
					No. of Units	Amount	No. of Units	Amount		No. of Units	Amount
A. Government Companies											
1982 -83	77	70469	152.14	428.52	26	6.52	46	16.67	10.15	5	0.17
1983 - 84	81	70458	169.25	568.98	23	6.28	52	27.53	21.25	4	0.17
1984 - 85	86	73197	185.41	646.02	27	10.32	53	27.58	17.26	5	0.26
1985 - 86	88	73907	214.80	662.19	27	14.41	56	50.92	36.51	6	0.66
1986 - 87	90	72859	315.21	786.28	25	15.22	51	65.19	49.97	4	0.54
1987 - 88	85	72655	345.87	852.69	27	27.15	50	61.21	34.06	4	0.49
1988 - 89	85	95368	412.96	968.62	25	28.76	56	62.92	34.16	7	0.47
1989 - 90	88	97408	458.57	1078.59	30	25.13	56	66.39	41.26	10	0.63
1990 - 91	90	97822	513.54	1376.20	29	33.67	60	78.89	45.22	10	0.69
1991 - 92	91	97548	553.12	1372.30	32	46.54	57	116.32	69.78	10	2.66
B. Statutory Bodies											
1982 -83	7	69361	37.14	473.06	2	12.78	2	0.09	--	1	0.10
1983 - 84	7	60091	50.02	509.95	2	12.59	2	21.55	8.96	1	0.10
1984 - 85	8	64643	55.69	535.15	3	29.68	1	21.56	--	2	0.38
1985 - 86	8	66963	61.06	697.44	3	29.81	1	20.11	--	2	0.36
1986 - 87	8	66856	68.35	859.95	2	0.87	3	21.07	20.20	--	--
1987 - 88	8	66101	73.95	982.65	1	0.23	4	45.88	45.65	1	0.51
1988 - 89	8	69424	573.95	1765.04	0	0	6	69.67	69.67	1	--
1989 - 90	8	70150	646.13	2029.35	2	12.75	4	54.65	41.90	1	--
1990 - 91	8	72950	655.12	2072.04	1	1.12	4	114.44	113.32	1	--
1991 - 92	8	69173	701.47	2595.30	1	0.81	5	124.33	123.62	1	1.53

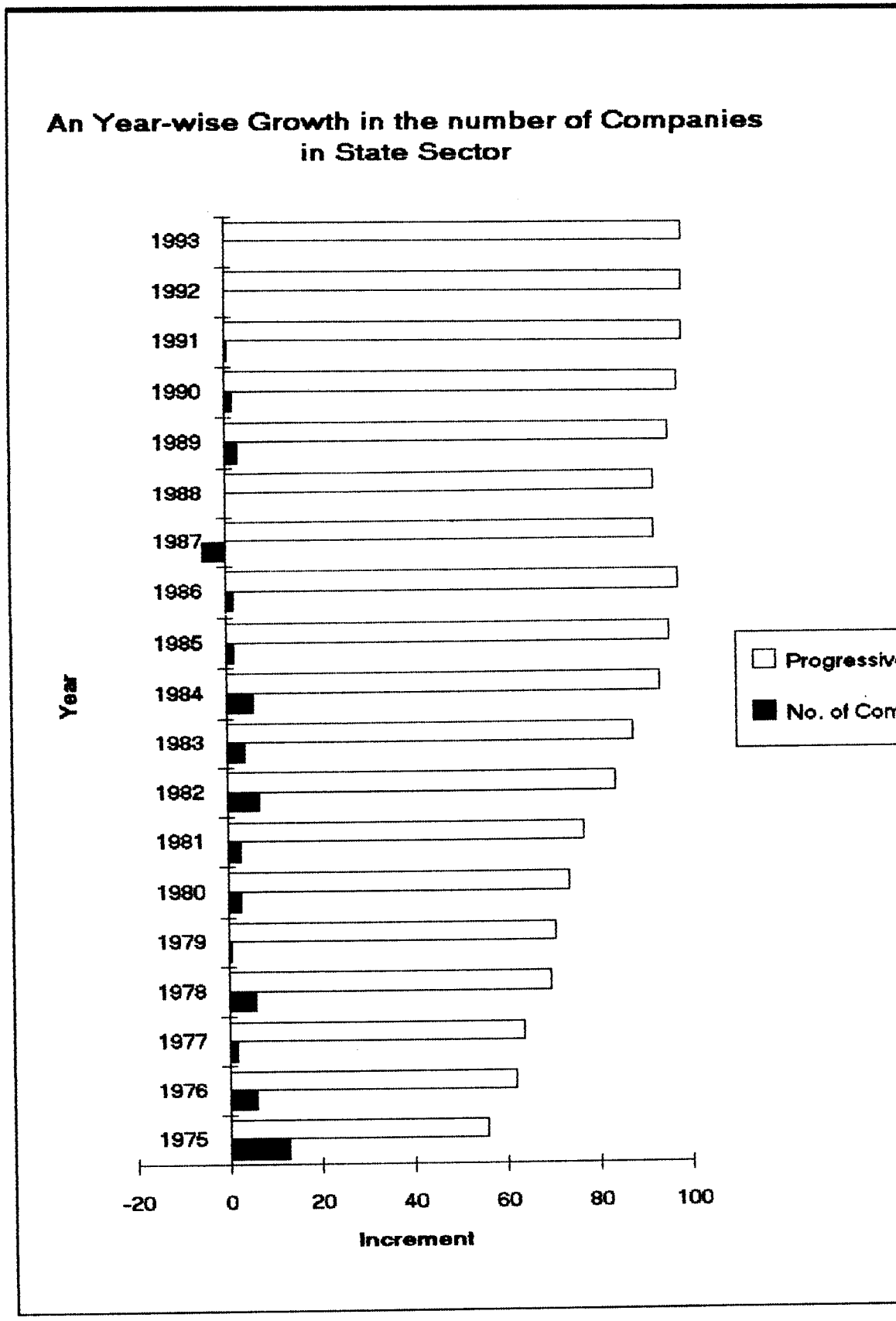
Note : Column (2) = Column (6) + Column (8). The difference, if any is due to information not avilable or units not yet commenced commercial Activity

Source: Rivew of the Public Enterprises in Kerala. Op. Cit

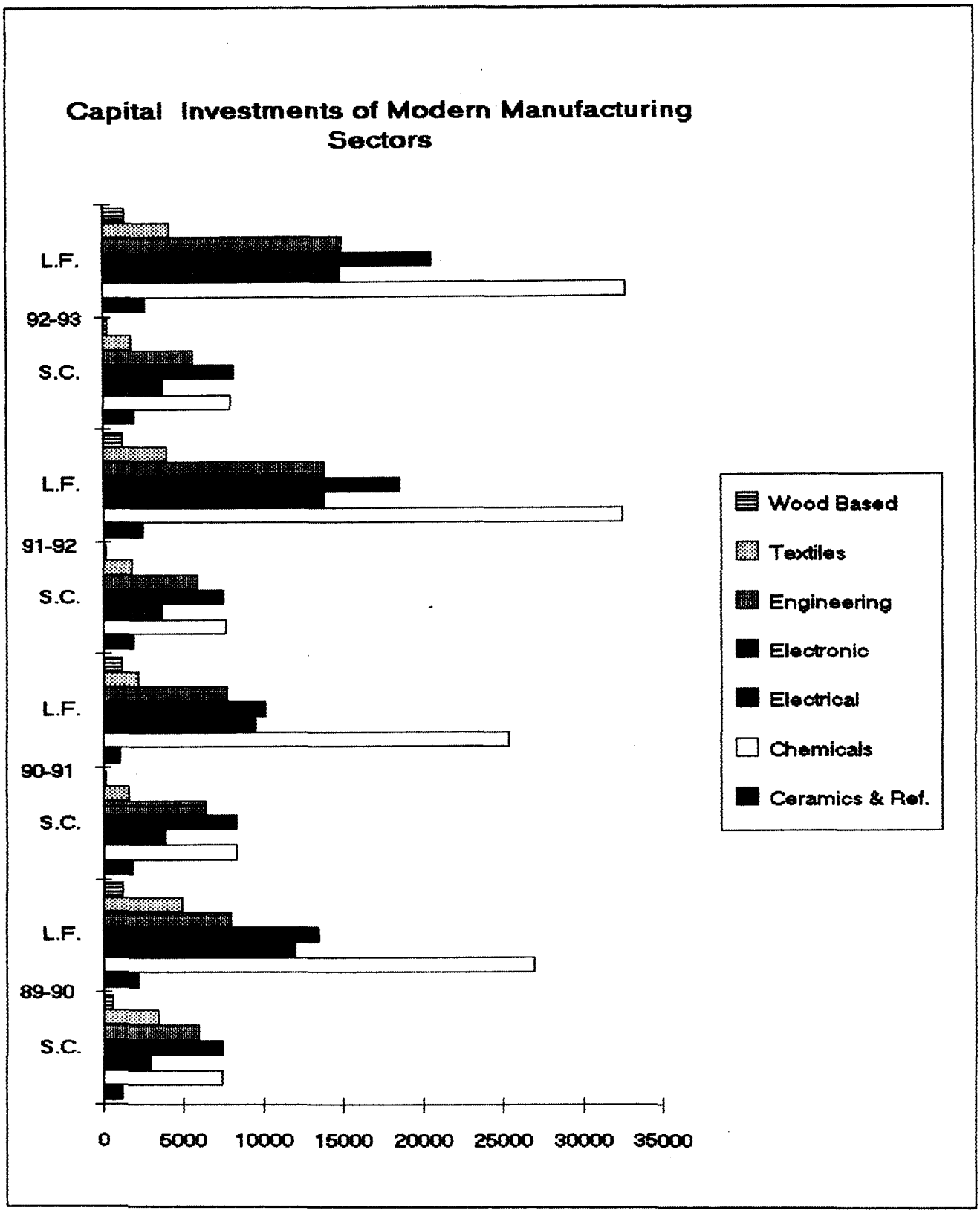
GRAPH 1[1946-74]



GRAPH 1 [1975-93]



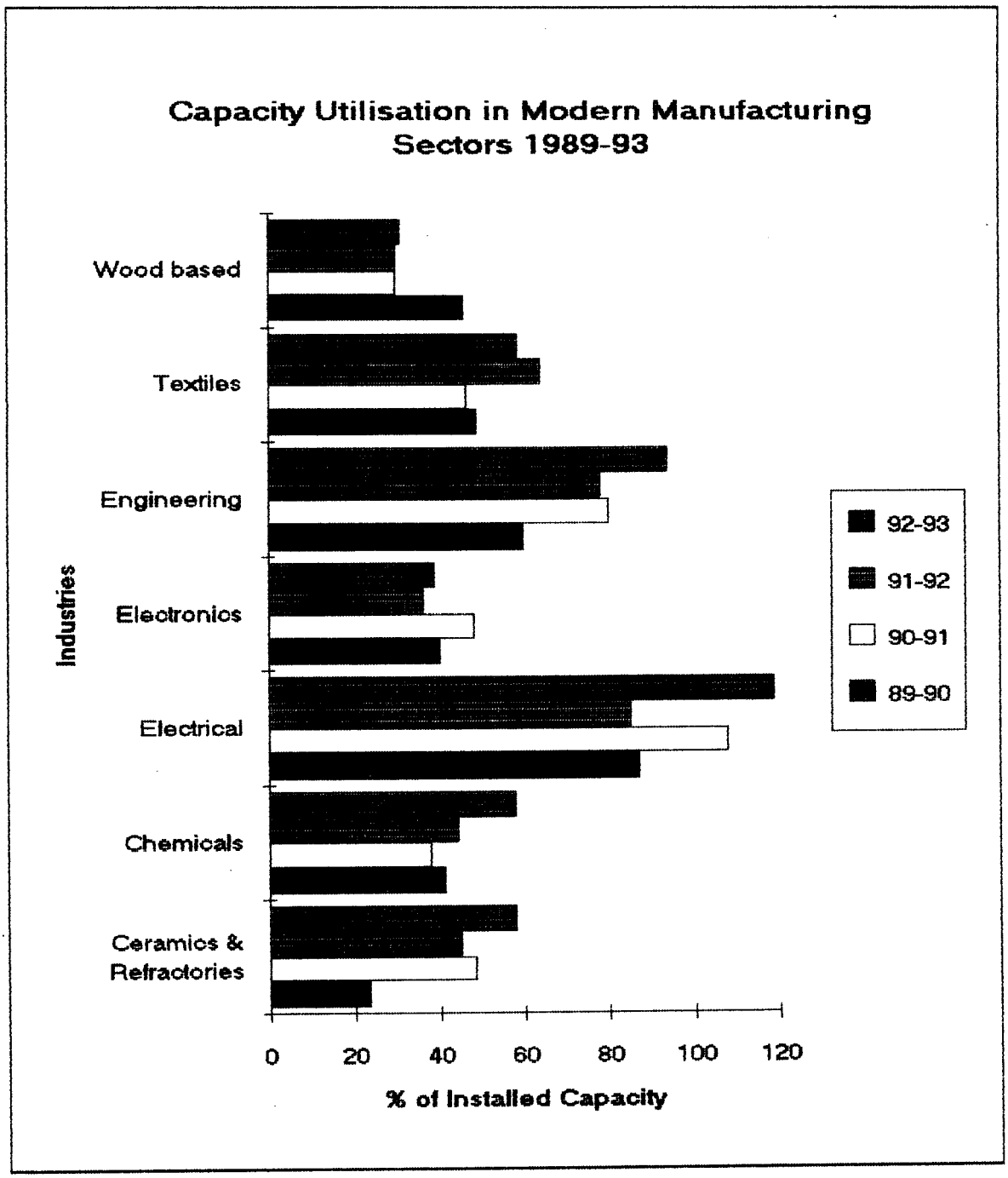
GRAPH 2



L.F - Loan Funds

S.C - Share Capital

GRAPH 3


Capacity Utilisation in Modern Manufacturing Sectors 1989-93
Wood based
Textiles
Engineering
Electronics
Electrical
Chemicals
Ceramics & Refractories
Industries
92-93
91-92
90-91
89-90
0
20
40
60
80
100
120
% of Installed Capacity

ANNEXURE - I

LIST OF PUBLIC SECTOR ENTENTERPRISES IN KERALA

I. Devt & Infrastructural Agencies

1. Kerala State Industrial Devt. Corporation Ltd (H)
2. Kerala State Industrial Enterprises Ltd (H)
3. Kerala Financial Corporation (S)
4. Kerala Tourism Devt corporation Ltd
5. Kerala Urban Devt Finance Corporation Ltd.
6. Kerala Land Devt corporation Ltd.
7. Kerala Small Industries Devt. corporation Ltd.
8. Kerala State Film Devt.corporation (S)
9. Kerala State Warehousing Corporation (S)
10. Kerala State Finanancial Enterprises Ltd.

II Ceramics & Refractories.

11. Kerala Construction Components Ltd.
12. The Kerala Premo Pipe Factories Ltd.
13. The Kerala Ceramics Ltd.
14. The Chalakkudy Refractories Ltd.
15. Kerala Clays & Ceramic Products.
16. Kerala Special Refractories Ltd.

III Chemical Industries.

17. The Kerala Minerals & Metals Ltd. *
18. Kerala State Detergents and Chemicals Ltd. *
19. Kerala State Drugs & Pharmaceuticals Ltd. *
20. Kerala Soaps & Oils Ltd. *

21. Kerala State Salicylates & Chemicals Ltd *.
22. Malabars Cements Ltd.
23. Phramaceuticals Corporation(IM) Kerala Ltd.
24. The Travancore Cements Ltd.
25. The Travancore Cochin Chemicals Ltd. *
26. Travancore Titanium Products Ltd.
27. Trvandrum Rubber Works Ltd. *

IV Electrical Equipment

28. Kerala Electrical & Allied Engineering Company Ltd.
29. The Metropolitan Enngineering Company Ltd.
30. United Electrical Industries Ltd.
31. Traco Cable Company Ltd.
32. Transformers & Electricals Kerala Ltd.

V Electronics

33. Kerala State Electronic Dept. Corporation Ltd (H)
34. Keltron Counters Ltd. *
35. Keltron Electro Ceramics Ltd. *
36. Keltron Crystals Ltd. *
37. Keltron Magnetics Ltd. *
38. Keltron Resistors Ltd. *
39. Keltron Power Devices Ltd. *
40. Keltron Rectifiers Ltd *.
41. Keltron Component Complex Ltd.
42. Sidkel Television Ltd. *

VI Engineering

43. The Metal Industries Ltd.
44. Steel Complex Ltd. *
45. Kerala Agro Machinery Corporation Ltd.

46. Steel Industries Kerala Ltd. (H)
47. Kerala State Construction Corporation Ltd.
48. Scooters Kerala Ltd. *
49. Astral Watches Ltd. *
50. Kerala Automobiles Ltd.
51. Steel & Industrial Forgings Ltd. *
52. Autocast Ltd *.
53. Kerala Hitech Industries Ltd.

VII Plantation of Agrobased Units.

54. Kerala Agro Industries Corporation Ltd.
55. Kerala Forest Devt Corporation Ltd (H).
56. Kerala State Coconut Devt Corporation Ltd.
57. Kerala Livestock Devt Board Ltd.
58. Meat Products of India Ltd.
59. Oil Palm India Ltd.
60. The Plantation Corporation of Kerala Ltd.
61. The Rehabilitation Plantation Ltd.
62. State Farming Corporation of Kerala Ltd.
63. The Travancore Sugars and Chemicals Ltd.
64. Kerala State Horticultural Products Devt Corporation Ltd.
65. Kerala State Poultry Devt Corporation Ltd.

VIII Textiles

66. Kerala Garments Ltd. *
67. Kerala State Textile Corporation Ltd.
68. Sitaram Textiles Ltd.
69. Trivandrum Spinning Mills Ltd.

IX Wood Based Industries

70. Forest Industries (Travancore) Ltd.
71. Kerala State Wood Industries Ltd.

72. Travancore Plywood Industries Ltd. *

X Traditional Industries.

73. Foam Mattings (India) Ltd.
74. Handicrafts Devt Corporation of Kerala.
75. Kerala State Bamboo Corporation Ltd.
76. Kerala State Handloom Devt Corporation Ltd (H).
77. The Kerala State Coir Corporation Ltd.
78. Kerala Khadi & Village Industries Board (S).
79. The Kerala State Cashew Devt Corporation Ltd.

XI

80. Kearla State Industrial Products Trading Corporation Ltd.
81. Kerala State Civil Suplies Corporation Ltd.
82. Kerala Sate Beverages (M & M) Corporation Ltd.

XII Welfare Agencies

83. Kerala Artisan Development Corporation Ltd.
84. Kerala Scholl Teachers and Non-teaching Staff Welfare Corporation Ltd.
85. Kerala State Development Corporation for Christian Converts From SC & RC Ltd.
86. Kerala state development Corporation for SC & ST Ltd.
87. Kerala State Handicapped Persons Welfare Corporation Ltd.
88. Kerala State Palmyrah Products Delelopment and Workers Welfare Corporation Ltd.
89. Kerala State Womens Delelopment corporation Ltd

XIII Public Utilities

90. Kerala Shipping & Inland Navigation Corporation Ltd.

91. Kerala State Electricity Board (S)
92. Kerala State Road Transport Corporation (S).
93. Kerala Water Authority.
94. Kerala State Housing Board (S).

XIV Others.

95. Kerala State Rural Development Board.
96. Overseas Development & Employment Promotion Consultants Ltd.
97. Tourist Resorts (Kerala) Ltd*.
98. Kerala Police Housing and Construction Corporation Ltd.
99. Kerala Transport Development Finance Corporation Ltd.
100. Sideco Mohan Kerala Ltd.
101. Kerala State Engineering Works Ltd.
102. Kearla State Inland Fisheries Development Corporation Ltd.
103. Kerala Fisheries Corporation Ltd.
104. Kerala Fishermen Welfare Corporation Ltd.

H - Holding Company.
S - Statutory Corporation
* - Subsidiary Companies.

Source : Government of Kerala - A Review of Public Enterprise in Kerala 1991-1992 Bureau of Public Enterprises.

ANNEXURE– II

Status of Ownership of State Enterprises in Kerala

Name of Enterprises, A wholly owned by Government of Kerala

1. Astral Watches Limited
2. Autocast Limited
3 Foam Mattings India Ltd.
4. Keltron Crystal Ltd.
5. Keltron Magnetics Ltd.
6. Keltron Power Devices Ltd.
7. Keltron Rectifiers Ltd.
8. Keltron Resistors Ltd.
9. Keltron Agro Machinery Corporation Ltd.
10 Keltron Artisans Development Corporation Ltd.
11 Kerala Automobiles Ltd.
12 Kerala Clays and Ceramic Products Ltd.
13 Kerala Garments Ltd.
14 Kerala Hitech Industries Ltd.
15 Livestock Development Board Ltd.
16 Kerala Police Housing Development Board Ltd.
17 Kerala School Teachers Development Board Ltd.
18 Kerala Small Industries Development Corporation.
19 Kerala Soaps and Oils Ltd.
20 Kerala Special Refractaries Ltd.
21 Kerala State Bamboo Corporation Ltd.
22 Kerala Beverages (M&M) Corporation Ltd
23 Kerala State Civilsuppliers Corporation Ltd
24 Kerala State Coconut Development Corporation Ltd.
25 Kerala State Construction Corporation Ltd.
26 Kerala State Development Corporation for christian convents from SC and RC Ltd.
27 Kerala State Detergents and Chemicals Ltd.

28 Kerala State Drugs and Pharmaceuticals Ltd.
29 Kerala State Electronics Development Corporation
30 Kerala State Film Development Corporation
31 Kerala State Financial Enterprises Ltd
32 Kerala State Handicaped person's Welfare Corporation Ltd.
33 Kerala State horticulture Products Development Corporation Ltd.
34 Kerala State Industrial Development Corporation
35 Kerala State Industrial Enterprises Ltd.
36 Kerala State Industrial Products Trading Corporation Ltd
37 Kerala State Palmyrah Products Development and Workers Welfare corporation Ltd
38 Kerala State Poultry Development Corporation Ltd
39 Kerala State Salicylates and Chemicals Ltd.
40 Kerala State Textile Corporation Ltd
41 Kerala Tourism Development Corporation Ltd
42 Kerala Transport Development Corporation Ltd.
43 Malabar Cements Ltd.
44 Meat Products of India Ltd.
45 Overseas Development and Employment Promotion Consultants Ltd.
46 Pharmaceutical Corporation (IM) Kerala Ltd.
47 Scooters Kerala Ltd.
48 Sidkel Television Ltd
49 Sitaram Textiles Ltd.
50 State Farming Corporation of Kerala Ltd.
51 Steel and Industrial Forgings Ltd
52 Steel Industries Kerala Ltd
53 The Kerala Ceramics Ltd
54 The Kerala Minerals and Metals Ltd
55 The Kerala Premo Pipe Factory Ltd.
56 The Kerala State Coir Corporation Ltd
57 The Kerala State Development Corporation for SC&ST Ltd.
58 The Metropolitan Engineering Company Ltd.
59 The Plantation Corporation of Kerala Ltd.

60 Tourism Resorts (Kerala) Ltd.
61 Travancore Plywood Industries Ltd.
62 Travancore Rubber works Ltd.
63 Travancore Spinning Mills Ltd.

B. Joint Owenership of State & Central Governments.

1. Kerala Agro Industries Corporations Ltd.o
2. Kerala Forest Devt. Corporation Ltd.
3. Kerala Land Devt. Corporation Ltd.
4. Kerala State Warehousing Corporation Ltd.
5. Kerala State Women's Development Corporation Ltd.
6. Oil Palm India Ltd.
7. The Rehabilitation Plantation Ltd.

C. Joint ownership of Govt. of Kerala & Public

1. Keltron Electro Ceramics Ltd
2. Kerala Construction components Ltd.
3. Kerala Shipping & Inland Navigating Corp. ltd.
4. Kerala State Handloom Devt. Corporation Ltd.
5. The Metal Industries Ltd.
6 The Travancore Cements Ltd.
7. The Travancore Sugars and Chemical Ltd.
8. Traco Cables Company Ltd.
9. United Electrical Industries Ltd.

D. Joint Ownership of Govt. of Kerala & Financial Institution

1. Kerala State Wood Industries Limited.
2. Kerala Urban Development Finance Corporation Ltd.
3. The Chalakudy Refractories Ltd.

E. Joint Ownership of Government of Kerala & Financial Institution & Public.

1. Forest Industries (Travancore) Ltd.
2. Keltron Component Complex Ltd.
3. Keltron Counters Ltd.
4. Kerala Financial Corporation.
5. Steel Complex Ltd.
6. The Travancore Cochin Chemicals Ltd.

F. Joint Ownership of Govt. of Kerala Financial Institution, Public & Foreign Firms.

1. Transformers & Electricals Kerala Ltd.
2. Travacore Titanum Product Ltd.