

**PERFORMANCE EVALUATION OF STATE PUBLIC  
ENTERPRISES IN THE MANUFACTURING  
SECTOR OF KERALA**

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**CERTIFICATE**

This is to certify that the thesis entitled "**Performance Evaluation of State Public Enterprises in the manufacturing sector of Kerala**" is a bonafide record of the research work carried out by Shri Verghese Mathew under my supervision and guidance and that no part thereof has been presented for any other degree.



  
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## LIST OF ABBREVIATIONS

1)	AG	Accountant General
2)	BIFR	Board for Industrial and Financial Reconstruction
3)	BPE	Bureau of Public Enterprises, Government of Kerala
4)	CEO	Chief Executive Officer
5)	DA	Dearness Allowance
6)	DOT	Department of Telephones
7)	DRDO	Defence Research & Development Organisation
8)	FGA	Fixed Gross Assets
9)	IM	Indian Medicine
10)	IR	Industrial Relations
11)	ISRO	Indian Space Research Organisation
12)	LTA	Long Term Agreement
13)	MOU	Memorandum of Understanding
14)	PSC	Public Service Commission
15)	PSU	Public Sector Undertakings
16)	R & D	Research & Development
17)	SITRA	South India Textiles Research Association
18)	R	Correlation Coefficient
19)	ZBB	Zero Base Budgeting
20)	PPIMS	Production and Profit Improvement Management Systems
21)	KRA	Key Result Areas
22)	MBO	Management By Objectives
23)	SWOT	Strengths-Weaknesses-Opportunities-Threats
24)	KRIM	Key Result Improvement Matrix
25)	EOQ	Economic Order Quantity
26)	SLPES	State Level Public Enterprises

## **CHAPTER - 1**

### **INTRODUCTION**

The rapid growth of public enterprises has given rise to a number of controversial issues like their role in economic development, forms of organisation, financing, governing boards, ministerial control, public accountability, efficiency, management, goals and measurement, personnel management, financial management, materials management, industrial relations, employee motivations, workers' participation in management, joint sector undertakings, etc. The public sector industry in India consists of more than 246 enterprises with a total employment of more than 2.6 million people, out of a total labour force in the industry sector of some 8.5 million people. Most of these public commercial undertakings were deliberately created as part of the industrialisation programme. This applies to steel, heavy engineering and chemicals. Except in a few sectors such as, coal mining, State control over the commanding heights of the economy has not been achieved by rationalisation. The public sector enterprise in India is the result of the entrepreneurship of the State. The list of public sector undertakings, however, includes a number of companies, specially in manufacturing industries, which have been rescued by the Government from financial difficulties and in order to protect the employment of hundreds and thousands of people.

During the early stages of industrialisation, the performance of the public sector came in for a lot of criticism from inside and outside the country. The choice of investment, inadequate project preparation, inexperienced management, non-differential relationship between the Government and the Corporations and other factors were responsible for the poor financial results. In some cases, there were production short comings, which held back the growth of the economy. While these weaknesses have not been completely corrected, performance has greatly improved in the last few years. Even private sector businessmen, while they resent to deal with monopoly suppliers in public sector admit that in the recent past the quality of management has improved considerably. Public enterprises' performances and the performance evaluation have become important areas of discussion especially in the developing countries.

This study purports to a performance evaluation of the modern manufacturing sector of public enterprises in Kerala since 1985. The public sector undertakings in the manufacturing sector in Kerala has the second highest capital investment, but they have made substantial losses in the year 1990-91. The accumulated loss of this sector in 1990-91 was RS. 395.30 crores. The reasons for this pathetic performance is evaluated in the study. An attempt has been made to make this a fool proof exercise, though it should be added that the limitations of a primarily empirical study would naturally impringe on the survey method in general. The study is organised under six Chapters. This follows a select bibliography and appendices.

Since independence, public enterprises in India have been making a tremendous forward surge. The public sector which accounted for just about 3% of the total productive capital employed in organised industry in 1951, now accounts for about half of the total investment in the entire field of organised industry. Besides, the position it occupies in the context of national economy as a whole is of strategic importance. It is insufficiently realised that the areas where public enterprises operate are so crucial and significant that the very course of the economy, to a great extent, will be determined by the way these enterprises are operated. The arteries and veins of the economy as also its foundations - the infrastructure - are being provided by the network of public sector enterprises.

The goals which the public enterprises are expected to achieve are many and varied. Not all of them are clear-cut, precise and tangible. Often these may be inconsistent with their commercial viability. Public enterprises are expected to serve the aims of public policy. There are three distinct stages in the evolution of public enterprises in Kerala. The first was prior to the second world war. The second started in 1945 and the third stage commenced in 1956. During the first stage, Kerala Region was divided into three political units. The Travancore & Cochin were under the princely rule. Malabar was forming part of adjoining Madras Residency and was under British rule. Of the 3 political units, it was Travancore which registered considerable industrialisation. With the growth of large scale cultivation of commercial crops like rubber, tea, cardamom and pepper in the high ranges of Travancore, roads and road transport connection to Cochin and Alleppey ports from Munnar-Peermade range in the eastern hills were developed. These were mere

private enterprises. The organisation and management of plantation industries required large amounts of risk, capital and technical skill. The European planters possessed these advantages in contrast to the local entrepreneurs. In this context it may be recalled that Travancore was the first State to nationalise trade in commercial crops in 1750 AD under the rule of Maharaja Marthanda Varma (1729-1758)<sup>1</sup> But after a hundred years the trade was de-nationalised<sup>2</sup>.

Direct state participation in the reproduction of the social product inevitably involves transferring to the possession of the state part of the social product and the wealth accumulated by society - the formation of state owned property. That part of the economy which functions on the basis of state owned property forms the public sector of the economy. The public sector of the economy is, of course, not an invention of the developing nations. It is well known that in socialist countries a large section of public property was state-owned. The public sector also plays a perceptible role in developed capitalist countries. According to data released by the Institute of World Economy and International Relations of the USSR Academy of Sciences, in the early 1970's the state's share in the production of the final social product<sup>3</sup> was 22.6 per cent in the United States, 21 per cent in Japan, 35 per cent in the Federal Republic of Germany, 49 per cent in Britain, 40 per cent in France and 37 per cent in Italy. Although the nature and social role of the public sector in the advanced capitalist and the developing countries differ greatly, the facts suggest that the growing economic role of the state is a universal phenomenon today. There is a historical background to this phenomenon, and an understanding of it is extremely important for elucidating the nature and purpose of the public sector.

### **1.1. Statement of the problem:**

The State Governments in India assume the role of the entrepreneur in one form or the other to usher in rapid industrialisation by supplementing the private and Central Government investment in the states. At the time of the formation of the state of Kerala in 1956 there existed an excellent industrial base mostly in the princely state of Travancore which was a pioneer in fostering industrialisation. But the story since then has been quite dismal and today Kerala is one of the least industrialized state in the Indian Union. Added to the bleak scenario is a rising per capita consumption and falling per capita income on the one hand and a growing army of unemployed and under employed manpower on the other. With the tertiary sector expanded to its limit, the key to progress and development lies in industrialisation, be it in the public or private sector.

The Central Public Enterprises have been set up to occupy the commanding heights of the economy, fill up the gaps in areas critical to the development of the country and provide wherewithal to finance its planned economic growth. But the State Level Public Enterprises owe their existence more as a result of historical factors and pragmatism than ideological considerations. However, today the State level public enterprises constitute an important segment of the Public Enterprise System in India. They are the vital instruments of public policy for the states of the Indian Union<sup>4</sup>

Though there has been an impressive growth in the number of public enterprises in Kerala over the years, their performance has been shabby and dismal. As on 31-3-1991, there were 104 public enterprises in the state of which five were under the process of liquidation. The total capital invested was Rs. 3448 crores of which about Rs.1163 crores were by way of share capital and Rs. 2280 crores by way of loan funds. But the return on this investment was abysmally poor as a result of which the net worth had become a shocking Rs. 529.39 crores. Again, the turnover was only 50% of the capital invested. The accumulated loss of the state enterprises stood at a staggering figure of Rs. 765.26 crores by the end of 1990-91. All these point to serious lapses in the system.

A certain section of the academic intelligentsia and politicians have of late taken umbrage in the comment that Kerala with its peculiar economic, social and political factors, is not conducive to industrialisation. And as such the failure of the state public sector is not a case in point - it's just a rule and not an exception. The hollowness of this thinking could well be understood by a cursory glance at the Central Public Sector in the State which is quite alive and kicking. Most of the units in the Central public sector are doing extremely well while only 29 units out of the 98 working units in the state public sector made profit.



Table 1.1 presents information regarding the performance of public enterprises during 1990-91 in the State.

TABLE - 1.1  
Performance of Public Enterprises

S I No	Sector	Employment Nos.	% of total employment	Capital invested (Rs. In lakhs)	% to total investment	Net Profit/ (Rs. lak)
1	Development & Infrastructure	4,286.00	2.51	45,457.41	13.18	(17
2	Modern Manufacture	23,532.00	13.78	79,022.94	22.92	(3,34
3	Traditional Industries	53,528.00	31.34	5,892.70	1.71	(21
4	Agro & Plantation based Industries	14,392.00	8.44	7,462.08	2.16	8
5	Trading Units	2,732.00	1.60	1,866.60	0.54	(84
6	Welfare units	275.00	0.16	2,144.26	0.62	(3
7	Public Utilities	71,935.00	42.12	202,260.38	58.66	(5,57
8	Others	92.00	0.05	717.79	0.21	
	TOTAL	170,772.00	100.00	344,824.16	100.00	(9,35

Source: Government of Kerala, Bureau of Public Enterprises, A Review of Public Enterprises in Kerala, 1990-91 - March, 1991 - p.XLViii - LXXV

As can be seen from table 1.1, the Modern Manufacturing Sector had the second highest capital investment and also made substantial losses in the year 1990-91.

## **1.2. Introduction of the theme**

This study focuses on modern manufacturing sector of the State of Kerala. This is mainly for the following reasons:

- I) Although studies on the other sectors such as traditional, Agro based and public utilities have been made because of the insistence of various funding agencies, national and/or international, not much has been done on the modern manufacturing sector.
- ii) It is presumed that the modern manufacturing sector has to sustain and grow in a more competitive environment than the others and it would be possible only if they can perform satisfactorily.

Depending on the types of industry, the manufacturing sector is further divided into seven industry groups. The various groups and the number of units in each group are as follows:-

Sl. No.	Industry group	No. of enterprises
----	-----	-----
1.	Ceramics and Refractories	06
2.	Chemical Industries	12
3.	Electrical Equipment	05
4.	Electronics Industries	10
5.	Engineering Industries	11
6.	Textile Industries	04
7.	Wood based Industry	03 *
		-----
	TOTAL =	51
		-----

\* There are three wood based industrial units which are not covered in the present study.

The study purports to the performance evaluation of the modern manufacturing sector of public enterprises in Kerala since 1985. The public sector undertakings in the manufacturing sector in Kerala had the second highest capital investment and also made substantial losses in the year 1990-91. The accumulated loss of this sector in 1990-91

was RS. 395.30 crores. The reasons for selecting this sector for the study are:-

There were 236 public enterprises under the Central sector as on 31-3-1991 having a total investment of Rs. 61,603 crores. The state level public enterprises in the whole of the country was about 875 with a total investment of Rs. 38,283 crores. Kerala had 106 public enterprises as on 31-3-1993. However, the public enterprises in the modern manufacturing sector is only 51. It may be noted that Kerala has the largest number of state level public enterprises. The sectors covered in the present study are as follows:-

Sector	No. of units
-----	-----
1) Ceramic & Refractories	06
2) Chemical	12
3) Electrical	05
4) Electronic	10
5) Engineering	11
6) Textile	04
	-----
TOTAL =	48
	-----

### **1.3. Methodology**

Published books, periodicals, pamphlets, etc. were the major sources of secondary information for this study. Unpublished documents, Government Orders and information collected through empirical survey and interviews with the representatives of management comprise the major chunk of primary materials. A survey of opinions of management was conducted as part of the study. The structural complexities and wide dissimilarities obtaining in the manufacturing sector in Kerala render an exhaustive and foolproof survey impossible. However, 12 manufacturing industries, viz. Keltron Resistors Ltd, Metal Industries Ltd, United Electrical Industries Ltd, Keltron Component Complex , Kerala Agro Machinery Corpn. Ltd, Pharmaceutical Corporation (IM) Ltd, The Kerala Ceramics Ltd, Travancore Cochin Chemicals Ltd, Malabar Cements Ltd, Travancore Cements Ltd, Kerala Electrical & Allied Engg.Co.Ltd and Kerala State Textile Corporation Ltd were surveyed with the help of interview schedules and questionnaires, which are reproduced in the appendices I to VI.

The interview was focused in the following areas:-

- 1) Management Systems and Practices
- 2) Human Resources Development
- 3) Marketing
- 4) Production
- 5) Research & Development
- 6) Finance

Of these, direct interviews were conducted with the help of the heads of the divisions of these public sector undertakings. Conclusions were drawn on the basis of the survey responses. The survey was conducted with a questionnaire having both close-ended and open-ended questions. The detailed methodology including the selection of sample, method of analysis, etc. are given in Chapter 4.

#### **1.4. Concepts and Terms**

The fundamental concepts and terms used in this study are quite familiar in the field of public sector undertakings and hence they are left undefined here, although certain crucial terms which take on contextual importance in this study are defined and classified as they appear in the text.

The concept of public enterprises as adopted for this study covers organisation, control, ownership and marketing aspects of productive entities by public authorities. The definition of public enterprises are:-

- 1) A public enterprise is a productive entity/organisation which is owned and/or controlled by public authorities and whose output is marketed
- 2) A productive entity/organisation is an identifiable decision-making unit with an explicit or extractable budget and which produces goods and/or services.
- 3) Ownership refers to more than 50 per cent of outstanding equity being held by a public authority, either directly by the government or indirectly by public entities (including other public enterprises)

- 4) Control means the power to be involved or actual involvement in the management of the enterprise through the appointment of top management (i.e. members of the Board of Directors or Chief Executive).
- 5) Output is marketed if sales cover more than 50 per cent of the current costs (current costs refer to intermediate inputs plus returns to factors not owned by the enterprise, largely wages and rent).

Deviation from the definition: Indian data do not strictly lend support to the above conditions. According to Section 617 of the Indian Companies Act, 1956, a Government company is that in which not less than 51% of the paid up share capital is held by the Central Government or any State Government or Governments or partly by the Central Government and partly by one or more State Governments. So also, the term control in the Indian context is used to refer “ownership control” only. The term “output marketed” is used in the sense that it is not provided free of charge. In this study, all public enterprises regardless of whether or not their sales cover more than 50 per cent of current costs are included.

### **1.5. Relevance of the study**

The present study assumes relevance in the context of the new economic liberalisation policy announced by the Central and State Governments. The performance of the public enterprises has become a subject of discussion not only by the Government, but also

various national and international agencies. An opinion has been created that one of the reasons for the economic backwardness of the country is the inefficient performance of the public enterprises. On the basis of this, there has been a wide spread demand to restructure these enterprises in such a way as to make them profitable and self sustaining.

The extension of Sick Industrial Companies (Special Provisions) Act, 1985 to public sector enterprises has made the public sector more accountable. As part of the liberalisation policy, attempts are being made for disinvestment in the public sector undertakings. Simultaneously efforts are also made to revive sick industrial units. In the above context accountability for performance on public enterprises has assumed greater significance and the present study is, therefore, timely and could provide a frame-work for policy makers and heads of public sector undertakings to improve their performance. Although the study is conducted at Micro level, an attempt is made to see whether the findings could be used to formulate public sector policies at macro level also.

### **1.6. Objectives of the study**

The public sector in India helped the creation of a vibrant capital goods industry and provided the solid industrial infrastructure for the mixed economy. Over the years the public sector as a whole became lethargic and gradually became a liability to the country. Although some efforts were made in the recent past to improve the performances of public sector enterprises especially in the Central sector, no serious attempt has been



made in the direction in Kerala. The successive governments which governed the state during the past several years promised to initiate steps to improve the performance of public enterprises in the state sector, but nothing meaningful was done by them. Today, there is an urgent need to improve the performance of public enterprises as the state exchequer can no longer finance these units through budgetary provisions. It is in this context that this study has been undertaken. The study is focused on the performance evaluation systems of the public enterprises in the modern manufacturing sector in Kerala. This particular sector is selected for the study as it almost fully reflect the competence of the management of these enterprises, unlike sectors such as public utilities or traditional industry which have a certain amount of social obligations to meet. The main objectives of the study are:-

- 1) to examine the various systems of performance evaluation existing in the state public sector undertakings
- 2) to identify relevant criteria for establishing an objective performance evaluation system
- 3) to develop a model, if possible, to evaluate the overall performance of the enterprises
- 4) to develop a frame work to evaluate performance of public sector at the macro level.

## 1.7. Sector-wise performance of public enterprises

After listing the objectives of the study, it is now proposed to examine the functioning of the public enterprises in the modern manufacturing sector in Kerala. Depending on the type of industry, the modern manufacturing sector is further divided into seven industry groups. The various groups and the number of units in each group are as shown in table 1.2.

TABLE - 1.2

Number of public enterprises in the manufacturing sector

<u>Industry group</u>	<u>No. Of enterprises</u>
1. Ceramics & Refractories	06
2. Chemical Industries	12
3. Electrical Equipment	05
4. Electronic Industries	10
5. Engineering Industries	11
6. Textile Industries	04
7. Wood-based Industry	03
	----
TOTAL =	51
	----

Table 1.2 indicates of the various group of the modern manufacturing industries in the State. Performance of each industry group during the three years, viz. 1992-93, 1993-94 and 1994-95 are given in tables 1.3 to 1.9.

TABLE - 1.3

Performance of Ceramics & Refractories Sector

		Rs. In Crores		
Sl.No.	Indicators	1992-93	1993-94	1994-95
1.	Paid up share capital	18.33	19.33	19.33
2.	Capital invested	26.94	28.26	28.51
3.	Net worth	-3.17	-2.65	-3.31
4.	Turnover	9.07	8.25	7.18
5.	Working Capital	1.28	1.72	1.20
6.	Profit(+)/Loss(-)	-0.17	-0.36	-0.75
7.	No. Of employees	1422	1465	1459

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Source: Government of Kerala, Bureau of Public Enterprises, A Review of Public Enterprises in Kerala - 1994-95, March, 1992, P.L.

TABLE - 1.4

## Performance of Chemical Industries Sector

Rs. In Crores

Sl. No.	Indicators	1992-93	1993-94	1994-95
1.	Paid up share capital	83.98	91.11	91.16
2.	Capital invested	351.25	311.03	253.53
3.	Net worth	- 64.27	-39.88	25.95
4.	Turnover	327.35	380.88	423.52
5.	Working Capital	100.07	77.39	77.62
6.	Profit(+)/Loss(-)	11.58	32.27	57.89
7.	Number of employees	7331	7317	7216

Source: Ibid P. XLIII

TABLE - 1.5.

## Performance of Electrical Equipment Sector

Rs. in Crores

Sl. No.	Indicators	1992-93	1993-94	1994-95
1.	Paid up share capital	45.02	52.89	60.90
2.	Capital invested	153.29	160.82	159.65
3.	Net worth	-21.37	-14.48	- 4.00
4.	Turnover	164.86	174.01	224.88
5.	Working Capital	35.59	45.85	46.99
6.	Profit (+)/Loss(-)	-7.79	-13.73	-17.80
7.	Number of employees	3786	4242	4395

Source: Ibid P. XLV

TABLE - 1.6.

## Performance of Electronic Sector

Rs.in Crores

Sl. No.	Indicators	1992-93	1993-94	1994-95
1.	Paid up share capital	100.81	102.04	105.38
2.	Capital invested	208.63	231.61	232.71
3.	Net worth	- 6.43	8.93	-43.52
4.	Turnover	165.67	166.30	113.44
5.	Working Capital	46.47	66.33	30.83
6.	Profit (+)/Loss(-)	-4.37	-3.91	-37.63
7.	Number of employees	3917	3816	3751

Source: Ibid P. XLVII

TABLE - 1.7.

## Performance of Engineering Sector

Rs. in Crores

Sl. No.	Indicators	1992-93	1993-94	1994-95
1.	Paid up share capital	66.77	70.87	70.87
2.	Capital invested	163.53	176.15	199.86
3.	Networth	- 23.31	-37.34	-55.59
4.	Turnover	102.47	86.24	95.59
5.	Working Capital	-7.86	-19.63	-11.15
6.	Profit(+)/Loss(-)	-20.52	-16.25	-16.46
7.	Number of employees	3476	3485	3536

Source: Ibid P. XLIX

TABLE - 1.8

## Performance of Textiles Sector

Rs. in Crores

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Sl. No.	Indicators	1992-93	1993-94	1994-95
1.	Paid up share capital	17.44	17.69	22.01
2.	Capital invested	40.84	41.13	43.42
3.	Net worth	-11.09	- 8.01	- 6.51
4.	Turnover	39.52	45.89	49.01
5.	Working Capital	0.98	3.79	2.50
6.	Profit(+)/Loss(-)	-1.94	0.73	-2.49
7.	Number of employees	3036	3015	3043

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Source: Ibid P. LIII



TABLE - 1.9.

## Performance of Wood-Based Sector

Rs.in Crores

Sl. No.	Indicators	1992-93	1993-94	1994-95
1.	Paid up share capital	2.56	2.56	2.56
2.	Capital invested	17.01	17.79	17.83
3.	Net worth	-15.22	-16.15	-16.87
4.	Turnover	3.95	4.55	5.65
5.	Working Capital	-3.70	-3.83	-4.55
6.	Profit (+)/Loss (-)	-2.72	-0.93	-0.70
7.	Number of employees	859	848	881

Source: Ibid P. LV

One common feature noticeable in all the tables (1.3 to 1.9) is the loss that these units had been making consistently over the last few years. Another noticeable feature is the alarming situation with respect to the net worth of these industry groups. Except for Electronics and Engineering groups, all the other industry groups are showing negative net worth which is eroding year after year.

The situation has to be viewed very seriously. These enterprises could survive only with liberal subsidies from the Government. Many of them received financial support from the Government in the guise of modernisation, expansion, diversification, etc.. But most of the funds received were used to meet the increasing working capital requirements of the enterprises. Under the new economic policies of the central and state governments, one can expect that this situation will not be allowed to continue.

Since it is not possible to close down all the loss-making enterprises, the question that naturally arises is how these enterprises can be made to perform better and profitably. The Government has a serious role to play in improving the present situation.

The first obstacle encountered is with respect to the meaning of the concept 'management control'. According to Peter Drucker (1980) control is an ambiguous word: it means the ability to direct oneself and one's work, but it also means domination of one person by another. The latter interpretation leads to most of the problems surrounding the question of enterprise control<sup>5</sup>. That is, if control means domination of the enterprise by the

government then control systems are the tools to implement this domination and at enterprise level, control would only reflect domination of one hierarchical level over another.

### **1.8. Hypotheses**

The following are the major hypotheses which are sought to be tested and analysed in the study.

The study has five hypotheses. They are:-

1. The performance of the state public sector manufacturing units in Kerala has not been satisfactory.
2. The performance of these units solely depends on the production and turnover
3. Their performance is not related to either to the consumption to sales ratio or the working capital.
4. It is not possible to evolve a set of factors for performance evaluation at the enterprise's level.
5. It is not possible to evolve a common set of factors for performance evaluation applicable to all public enterprises in the manufacturing sector.

## **1.9. Scope and the limitations**

The present study has made use of data pertaining to the last 10 years, i.e. from 1985-86 to 1994-95 of the selected enterprises. Apart from the secondary data, a survey among the executives belonging to various functional areas such as production, marketing, finance, research & development, human resources development and management systems was carried out.

This study could have been a census study, but due to constraints of time and resources it was made a sample study. Best available secondary data are used for the study, as obtained from the publications of the Bureau of Public Enterprises, Government of Kerala.

Since there is arrears of audit of accounts in many companies, the data used for analysis are in some cases provisional. The provisional figures are likely to change when the audit is completed. To that extent, the data used may not represent the actual. The primary survey carried out through questionnaires had to be filled up by Executives. Due to constraint of time, in many cases, the answers to the questionnaires were not objectively given. The reluctance on the part of executives was very much apparent in parting with factual information or in giving a critique on the performance of public sector undertakings.

### **1.10. Scheme of the study**

This thesis is organised under six chapters.

The first chapter gives an introduction to the topic. It covers the statement of the problem, introduction of the theme, source material. The study focuses on the performance of public enterprises in the modern manufacturing sector in Kerala. This chapter also presents the relevance of the study, objectives of the study, hypotheses and scope and the limitations of the study.

Chapter 2 reviews the literature available in the area of study. Literature available in libraries of most of the premier educational institutions of the country like, Cochin University of Science and Technology, Centre for Development Studies, etc. were covered.

Chapter 3 gives a vivid picture about public sector undertakings in Kerala. This follows a discussion on public sector manufacturing enterprises in Kerala.

Chapter 4 explains the detailed methodology of the study.

Chapter 5 analyses the performance of selected public sector manufacturing enterprises.

Chapter 6 presents the findings of the study.

Chapter 7 presents the conclusions. This chapter also presents certain recommendations for improving the performance of public sector enterprises.

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## CHAPTER -2

### REVIEW OF LITERATURE

Theoretical studies of public sector undertakings are not in short supply; the last two decades have in fact witnessed a significant spurt in public sector research in both developed and developing countries. The major sources of materials are from Appleby P.H., Public Administration in India 1953 - Breecher, Nehru a Political Biography, London 1959 - Das Nabagopal, The Public Sector in India, Bombay 1966 - Gangadharan Pillai V, State Enterprises in Kerala, Trivandrum 1970 - Hanson A.H., Public Enterprises and Economic Development London 1961 - Khera S.S, Management and Control in Public Enterprises Bombay 1964 - S.M. Patil, Dr. Raj K. Nigam, We on the Public Sector Bombay 1988 - R.K. Misra, Ravi Sanker, Nandagopal (Ed), Management of State level Public Enterprises in India New Delhi 1989 - Drucker Peter, The Practice of Management, New Delhi 1980.

Yet another chunk of materials in the public sector field is available with Bureau of Public Enterprises, Government of Kerala. There are several other works in this regard like Laxmi Narain, Public Sector in India New Delhi 1975, Gangadharan Pillai, Public Sector in Kerala, Trivandrum 1980 - SCOPE, Performance of Indian Public Enterprises, New Delhi 1978 - Jagdish Prakash, Public Enterprises in India, Allahabad 1980 - Aggarwal R.C, State Enterprises in India, Allahabad 1961 - Gupta K.R, Issues in Public



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## **2.1. Role of public sector**

The study begins with a selective review of literature dealing with the role of public sector and their short-comings in the performance. Such a review is attempted with a view to put in sharp focus specific issues for research on State Level Public Enterprises (SLPES) in the context of Kerala.

It is a fact that the public enterprises have not been able to generate adequate surplus for sustaining public investments while some of them are subsidised by the rest of the economy. Similarly, some of the infrastructural facilities provided by the public enterprises have been found to be inefficient and costly. However, it can be claimed on the positive side that public enterprises have enabled the country to achieve a large degree of industrial diversification, to reduce import dependence, to stimulate private investment and to create a large pool of skilled manpower, all of which have helped the country to

achieve a high level of self-reliance, and promote a more balanced regional development of the country. Yet, the suboptimal performance of the public sector enterprises in relation to the generation of adequate surplus has accentuated the “fiscal crisis” (deficit in the government’s budgetal and caused a lot of disenchantment with the role of the public sector in India).

The public sector holds a dominant position in the Indian economy. Approximately 1,000 Central and State Public Sector Units account for about 17% of Gross Domestic Product and about 23% employment in the organised sector. (20.69 lakhs persons in Central Public Enterprises during 1993-94). The investment in the Central Public Sector Enterprises was Rs. 1,64,332 crores in 246 enterprises as on 31-3-1994 with a percentage of net profit to capital employed of 2.78

The performance of these units has been a matter of concern for the Government. Several units suffer from chronic problems of inefficiency, low productivity, poor management, budget deficit, absence of contribution to the national exchequer, etc., contrary to what has been envisaged in successive five year plans. The various surveys and studies of central public enterprises, financial performance have identified the following as the constraints in the way of efficient performance: (a) poor choice of location, (b) non-availability of inputs like raw materials and fuel, © choice of wrong technology, (d) over manning at the executive/worker level, (e) poor internal management of the enterprise, and (f) inefficiency in the marketing of products.

The expansion of the central public enterprises sector to occupy the commanding heights of the economy was an integral part of the industrial development strategy commencing from the second five year plan (1955-'60), which laid emphasis on the development of basic industries and infrastructure through planned public investments. The strategy has paid some dividends. Central public enterprises stimulated the growth of a large diversified industrial sector which reduced dependence on imports, stimulated the growth of private enterprise and created a large pool of trained industrial skilled man power..

The 246 central public enterprises can be broadly divided into 166 enterprises producing goods and 74 enterprises rendering services. Six enterprises are under construction.

Central public enterprises do not form a homogenous set of enterprises performing at the same level of efficiency. There is wide variation in their performance both in terms of efficiency of service to the consumer and profitability of the operations, as indicated in Table 2.1.

TABLE -2.1.

## Performance of central public enterprises (1993-94)

Rs. In crores

Sl.No:	Cognate groups	No.	Capital employed	Gross profit	Net Profit
	(A) Enterprises Manufacturing goods				
1	Steel	9	18025.28	1023.67	-116.73
2	Minerals & Metals	13	7110.13	542.71	231.04
3	Coal & Lignite	9	11986.96	1391.75	511.45
4	Power	4	22340.86	1754.60	1013.56
5	Petroleum	14	30201.49	5757.22	3947.48
6	Fertilisers	8	2057.65	394.33	-401.08
7	Chemicals & Pharmaceuticals	21	3181.68	303.27	-15.88
8	Heavy Engineering	15	2046.38	181.38	-369.91
9	Medium & Light Engg.	24	3976.72	564.37	-49.02
10	Transportation Equipment	12	2729.27	415.71	-157.67
11	Consumer Goods	19	66.84	-357.67	-699.26
12	Agro Based Industries	4	99.64	6.81	-3.73
13	Textiles	14	297.71	131.72	-637.48
	Total (A)	166	104120.61	12109.87	3252.77

	(B) Enterprises Rendering Service				
1	Trading & Marketing Services	18	12572.73	1660.23	129.00
2	Transportation services	11	9833.46	679.44	-31.57
3	Constract and Construction Services	10	426.56	-32.92	-234.45
4	Industrial Development and Tech. Consultancy Services	12	4744.93	525.19	231.52
5	Tourist Services	9	161.67	33.74	3.94
6	Financial services	7	19713.99	2146.13	546.10
7	Telecommunication Services	2	7504.94	1296.83	520.26
8	Section 25 Companies	5	228.51	19.24	17.21
	Total (B)	74	55186.79	6327.88	1182.01
	Grand Total	240	159307.40	17437.75	4434.78

Source: Public Enterprises Survey 1993-94, Government of India

Note: Section 25 companies are those incorporated under Section 25 of the Companies Act to serve a social/promotional purpose. They are not profit oriented and are not required to declare any dividend.

## **2.2. State Level Public Enterprises (SLPES)**

Thus far, we have been discussing the role of the public sector in general. In a federal country like India, enterprises are also set by the state governments to undertake certain economic activities under their ownership/management and control. These enterprises are generally called, the State Level Public Enterprises (SLPES) so as to distinguish them from the enterprises set by the Central Government in the state regions.

In the case of State Level Public Enterprises, the published data available is rather scanty. There are varying estimates of their number. The variations are due to the definitions assumed in different states for SLPEs. In some states, electricity boards and road transport corporations, which are statutory corporations are added, while in others they are not. Some states have got enterprises registered under the Companies Act functioning in the power and transport sector. In some states enterprises registered under the Co-operatives Act are also added to the list of SLPEs. In a recent study, the Institute of Public Enterprise, Hyderabad has identified 954 SLPEs of which those which are registered under the Companies Act and Statutory Corporations, other than electricity boards and road transport corporations add up to 875. Of the 875 enterprises, 671 were government companies, 38 statutory corporations, 128 co-operative enterprises and 38 public authorities. Of these, 436 enterprises came under the commercial category and 312 under commercial-cum-promotional and 127 were purely promotional. The total investments in these enterprises at the end of 1991-92 was computed to be Rs. 38,283 crores. During that year the total loss was Rs. 863 crores.

The State of Kerala has the largest number of SLPEs in the country. The investment in these 106 SLPEs works out to Rs. 4810 crores, of which almost one-third is in the form of share capital and remaining as term loans. Until 1993-94, these units had accumulated losses to the tune of Rs. 1220 crores. 43 SLPEs have their net worth fully eroded. The SLPEs directly employ 1,61,000 persons and provide indirect employment to at least 8,00,000 persons.

It is significant to note that state level public sector enterprises still constitute proportionately a significant component of the large and medium enterprises in Kerala (see table 2.2) These enterprises constitute around 23 % of units, 11% of gross fixed assets, and 12% of direct employment accounted by the large and medium industries in 1989 in the state of Kerala. Given the significant size of state level public sector investment in Kerala, an understanding of the relative efficiency and financial performance of these enterprises vis-a-vis their counterparts in the private sector is of critical importance to public policy.

A recent study, which examined the financial accounts of 250 state level public sector enterprises in the manufacturing sector in the country has documented their poor performance: more than 50% of the enterprises studied were found to be loss making ones. The picture was depressing particularly in Kerala where 25 out of 47 enterprises studied were found to be loss making ones and their accumulated losses accounted for 240 percent of paid up capital (see table 2.3). Evidently, investment in the state sector

enterprises has not been yielding adequate returns with a number of enterprises continuing to incur losses beyond the value of paid up capital in Kerala.

TABLE - 2.2

Sector-wise distribution of large and medium industries in Kerala (1988-1989)

	Central Sector	State	Co-operative Sector	Joint Sector	Private Sector	Total
A. Units in Production	18 (8.5)	42 (19.90)	14 (6.6)	28 (13.27)	109 (51.65)	211 (100)
B. Gross fixed Assets (Rs. Crores)	782 (46.29)	360 (21.31)	26 (1.5)	67 (3.97)	453 (26.82)	1689 (100)
C. Estimated Annual turn-Over (Rs. Crores)	1239 (49.93)	313 (12.61)	106 (4.3)	82 (3.3)	741 (29.86)	2481 (100)
D. Direct employment	26143 (26.96)	21416 (22.09)	3925 (4.04)	3388 (3.49)	41589 (42.90)	96941 (100)

(Figures in bracket show percentage to total)

Source: State Planning Board, "Large and Medium Industries including Public Sector Industries", Formulation of Eighth Five Year Plan (1990-95), Background Paper, Government of Kerala, Trivandrum.



TABLE 2.3

## State-wise performance of Public Sector Undertakings

State	Profit Making Enterprises	Mixed Performance Enterprises	Loss Making Enterprises	Accumulated Losses to Paid up capital (In per cent)
Assam	0	7	7	85
Andhra Pradesh	2	3	3	73
Bihar	0	2	8	70
Goa	3	0	1	20
Gujarat	2	8	7	32
Haryana	1	2	2	72
Himachal Pradesh	0	1	5	656
Jammu & Kashmir	0	2	4	43
Karnataka	5	9	7	72
Kerala	5	17	25	240
Madhya Pradesh	0	3	5	14
Maharashtra	0	3	3	142
Manipur	0	3	3	56
Meghalaya	0	1	3	40
Nagaland	0	0	1	85
Orissa	1	2	2	120
Punjab	0	0	1	10
Rajasthan	2	5	8	75
Tamilnadu	4	5	6	18
Tripura	0	0	1	240
Uttar Pradesh	6	4	4	95
West Bengal	2	3	22	201
Total =	33	80	137	

Source: Reproduced from Sankar, 1991 Op.cit.

### **2.3. Literature survey**

In accordance with the mixed economy plan advocated and initiated during the Nehruvian era, Kerala too had promoted the public sector concept. This was obviously done by building and operating a wide range of industries, over a considerable period of time. These industries 14 in number are classified under different sectors. The sectors are Development and Infrastructural agencies, Ceramics and refractories, Chemical industries, Electrical equipment, Electronics, Engineering, Plantation and Agro based units, Textiles, Wood based industries, Traditional industries, Trading units, Welfare agencies, Public Utilities and others. Today the state fully owns 74 of the 108 state enterprises. Ten enterprises are jointly owned by the state and central governments. Another 10 enterprises are jointly owned by the Government of Kerala and the public. The rest of the 14 companies have by other forms of ownership.

The establishment of public sector undertakings in Kerala was a natural outcome of the Industrial (Development & Regulations) Act, 1951 and the development strategy followed since the beginning of the planned development process in the country. The need for public sector investment was all the more felt during the initial five year plans since private capital was acutely limited and was also least interested in entering the industrial scenario in the State. However, it was a period of national urgency to grow at a rate faster than what would have been possible otherwise relying on private initiative and enterprise. The few public sector industries formed during the fifties and also early sixties along with

the few Government owned industries started before independence formed the industrial base for Kerala. All further industrial development evolved from this industrial base. The primary objective of these industries was outlined in the National Policy as well. It was to “ bring about socio-economic growth to the masses” <sup>1</sup> and thereby help eradicate poverty, improve quality of life, promote social security, etc. Thus the public sector was a major instrument of the Government in the development plans and has well established itself in all spheres of life. This is obvious, since it has made significant contributions to the society, economy and industry. The monetary viability of public sector undertakings was initially intentionally ignored. This was because social profitability was then the need of the hour and not financial profits. The focus on social profitability has resulted in public benefits such as employment to a substantial number of people. The massive losses on the financial front, however, still continue to incur in a large number of State owned industries. Huge financial support has been provided by the Government in operating many public sector industrial units over a number of years. However, the inability to generate surpluses for reinvestment and further growth has put considerable pressure on the National Economy. This has forced the Government to find solutions alternative to financial support. Some very positive steps have been undertaken by the Government in this regard. Standing committees and conferences were initiated and they have made very specific recommendations and suggestions. Another attempt of the Government in reforming the public sector may be seen in the formation of L.K. Jha Commission. This Commission made very constructive recommendations which were agreed to and accepted in principle by the Government.

The Economic Survey 1992-93<sup>2</sup> reports that the financial performance of public enterprises has been a matter of wide concern. The rate of returns by the public enterprises was only 2.23% on capital employed in 1990-91 and the same declined to 2.09% in 1991-92. The profitability of the public sector undertakings in terms of gross profits were also lower. The Board of Industrial and Financial Reconstruction (BIFR) set up under the Sick Industrial Companies (Special Provisions) Act, 1985 had received 1772 applications since its inception and one-third of the same was for liquidation.

The fate of public sector units in the neighbouring countries is also not different. A conference on Management of Public Enterprises organised at New Delhi (April 17-20, 1995) by National Productivity Council with participants from various Asian countries came to the conclusion that “many of the public sector enterprises are incurring huge losses year after year inspite of various efforts at improving their performance by further investment for their diversification, rehabilitation or modernisation”<sup>3</sup>

Today the public sector in Kerala is in the threshold of a transition period. This is obvious from the fact that the loss making companies have come under severe criticism both by the Government and the society. This has led to radical changes in the policy regarding public sector. The transition process is, however, not yet fully formulated and accepted. The new roles and opinions of the Government, world bodies, trade unions and the society in the field of social justice, development and economic growth have helped continually in reviewing and promoting newer ways of public sector reforms, so that

financial profitability along with social profitability becomes the usual norm in public sector enterprises.

It was the Industrial Policy Statement of the State Government in 1991 which paved the way for initiating several measures for bringing out the structural changes in the state's industrial scene. The policy reforms if pursued singlemindedly could positively transform the performance of public sector enterprises.

Business competitiveness has been for quite some time the hall mark for performance and has been aggressively pursued by organisations in general worldwide. The reasons for sharpening business competitiveness has been many; the predominant cause being fierce competition for the market. Other reasons include constraints in the availability of natural resources, energy, etc. Also better service and customer support became vital in order to stay in business. Furthermore the erosion of the concept of socialist economy through out the world has led to focusing attention on financial viability, self generated surpluses for reinvestment, diversification plans, newer marketing strategies, etc. With the Government suggesting that it would no longer bear the burden solely, the challenge for public sector reforms and growth has been phenomenal. Such a challenge has resulted in productivity improvement studies in all the factors and processes of production and new management skills and "mantras" have been devised by many organisations and "management gurus". It may be noted that newer technologies along with newer and effective management practices have yielded results in many organisations world wide.

This invariably suggests that the challenge in improving the performance of the public sector in Kerala can be well met, if the right course of action is followed.

The study is also carried out, considering the prospects for a positive industrial growth due to the existence of certain favourable factors such as availability of skilled and educated man power, plentiful water supply, good network of roads, existence of water ways and seaports, etc. Furthermore, Kerala is rich in a number of natural resources and also has a favourable climate.

The causes for the historical lack-luster performance has almost always been put on labour militancy. The objective of this study is however to explore other causes, including mismanagement on the part of the top level management and government. The study involves the building of relationships between various parameters responsible for the performance of public sector enterprises. In order to improve on the scope of this study, senior managers and departmental heads have been discussed with and truer judgement regarding performance enhancement is made. Their suggestions and opinions, apart from the conclusions made from the data analysis provide ample scope and challenges for organisational change, management development, etc.

## **2.4 Criteria for performance evaluation**

One major problem encountered in performance evaluation is the selection of criteria.

Bennett<sup>4</sup> says that the performance criteria can be selected if there is a corporate plan for performance improvement programme. Bennett speaks of five principles that should be followed while selecting indicators for the evaluation of public enterprises management.

The most relevant indicators are those whose variation from period to period has the greatest impact on national objectives. Another principle in determining the criterion for performance evaluation is that it should represent those which have a significant bearing on managerial performance and those whose variation depend on managerial skill and performance. The other three principles are that the performance indicators should be conveniently and cheaply measurable, as also comprehensible and objectively measurable.

In order to evaluate the performance of public enterprises, one must first examine the goals of the public enterprise. Public enterprise goals are difficult to specify due to the problems of multiple objectives including commercial and non-commercial ones. If goals cannot be specified, then good performance cannot be distinguished from bad, and the manager cannot be rewarded on the basis of performance. The result will be inefficiency since non-commercial goals of public enterprises are difficult to quantify. Quantified performance indicators should be introduced to serve as an approximation of their performance. In the common measure of commercial goals is profitability, which is the same indicator as for private enterprises. Profits separates the difference between revenues and costs. Therefore, if a public enterprise is profitable that means it generates

additional resources, which can be used to finance its activities or even to expand its operations. Various ratios may be used for assessing the profitability of public enterprises such as return on capital employed, return on assets employed, profit on percentage of sales, percentage of costs, etc.

In evaluating the performance of public enterprises the questions of economy, efficiency and effectiveness are to be considered. It is necessary to enquire as to how public enterprises acquire human and material resources. In other words, whether an appropriate quality and quantity of such resources is acquired at the lowest cost. Special attention is drawn to the efficiency of public enterprises, to the relationship between goods and services produced and resources used to produce them. It is necessary to pay greater attention to the productive efficiency of public enterprises. All factors of production should be used efficiently and for that reason many criteria and indicators are to be developed in order to make a proper evaluation of public enterprises efficiency. Such indicators are capacity utilisation, inventory levels, consumption co-efficient, labour standards, etc. In other words various inputs/outputs ratios should be developed. Such ratios would depend on the character and specifics of the public enterprise.

## **2.5. Systems of Performance Evaluation.**

Trivedi<sup>5</sup> explores the applicability of introducing the French system of contracts in less developed countries for better performance. The main thrust of these contracts in France



was to re-orient the management of public enterprises from a system of “priori” control to a system of “posteriori” controls. Two ways of controlling the performance of public enterprises are through management by objectives or management by results, the other approach attempts to control individual processes which convert inputs into outputs. Most Governments are either not organised to control by results or find difficult to do so. Therefore, they try to compensate for it by controlling a variety of internal processes. The result is a high “quantity” but “low quality” of government control over public enterprises. By moving toward “a posteriori” controls, the contracts were expected to raise the quality of control while lowering the quantity. It was hoped that by doing so, they would raise both managerial autonomy and managerial accountability, thereby overcoming the unpleasant trade off between accountability and autonomy. In other words, these contracts were expected to clarify objectives and reconcile priorities “ex-ante” so that public enterprise managers could be held ambiguously accountable ex-post for achieving these objectives uninhibited by rigid, bureaucratic rules and regulations and “ad hoc” government interventions. Trivedi focuses attention on the implementation and the outcome of French model for managing government - public enterprise relationships in various countries. They are thereby classified into various categories such as the signaling system practiced in Pakistan, Korea and Venezuela and the performance contract approach of Bangladesh. Under the signaling system adopted in Pakistan and Korea, the performance evaluation system tries to measure performance on three fronts, viz., the level of static efficiency or the fact that if the firm is making the best use of given stock of resources, the level of dynamic efficiency or to ensure that the firm is making optimum

decision and achievement of non-commercial objectives. In this context, Trivedi also analyses the Indian version of contract system namely the Memorandum of Understanding. It was found that the system had not yielded the desired benefits. According to Trivedi, the exercise has remained a non-starter if viewed in terms of providing a new direction to public enterprises. It is said that most of the public enterprises were lacking in independent information to negotiate MOUs. In most cases, it is found that the Government has to reply on information supplied by the enterprises. It is also noticed that nonguidance was given about the importance of various criteria, in addition, there was a conspicuous absence of explicit incentives and this incentive associate with the fulfilment of objectives. Trivedi concludes that high level political commitment is necessary for the success of the contractual approach, but it is by no means a sufficient one. One important pre-requisite that is laid down by Trivedi is that there should be co-ordination between designers, implementers and policy makers so that consensus can be generated on the key aspects of the system.

A comparative evaluation of the various types of performance evaluation systems which are in vogue in public enterprises in India such as MOU, MBO, Zero Base Budgeting,(ZBB) Performance Budgeting and Production and Profit Improvement Management System (PPIMS) and conventional Budgeting Systems is made by Trivedi and Gopal<sup>6</sup> . Although performance improvement of public enterprise is the aim of all these systems, they follow different paths to achieve the common objective.

The MOU system is currently an agreement between a public enterprise and the Government, represented by the administrative ministry in which both parties clearly specify their commitments and responsibilities. MOUs have concentrated both on static and dynamic operational efficiency. Under static efficiency, it is the efficiency of the use of the resources at the disposal of the enterprise at a given point of time. Dynamic efficiency pertains to the areas where the cost is incurred today, but benefits accrue in the future. Items included in this category are Preventive Maintenance, Corporate Planning, Human resource Development, etc. Weights are assigned to different criteria for assessing performance. The conventional budgetary system deals with the task of preparing annual budget documents. The budget is an elaborate document which contains detailed plans of the enterprises in both physical and financial terms. The first draft of the budget is submitted to the administrative ministry, which in turn, consults the other relevant ministries such as finance, planning, etc. After a series of negotiations, the final budget is approved by the administrative ministry in a joint meeting normally presided by Minister in charge. At the year end, the actual achievements are measured against targets. The concerned administrative ministry evaluates the public enterprise, which provides the ministry to facilitate monitoring. They also list similarities between the conventional budgeting system and the MOU system. In both MOU and budget, the indicators and performance targets are clearly defined. The targets are fixed after negotiations between the administrative ministry and the enterprise. Another similarity is that since both the enterprise and administrative ministry are signatories of budget documents, they share the responsibility for achieving performance targets.

It is also found that there are many dis-similarities between the MOU systems and conventional budgeting. Conventional budgets are detail-oriented while the MOU document is with aggregates. When compared to the conventional budgeting system where the evaluation is done by the administrative ministry, in the case of MOU system, this is done by the high power committee and this makes it possible for a more objective assessment. Another difference is that the relative importance of various criteria is not indicated in the budgets. The MOU takes care of this by giving weights to various criteria. In conventional budgets, targets are primarily quantitative in nature, while the target of MOU, could be either quantitative or qualitative in nature. While conventional budgets aim at control by comparing the expenses incurred in a period or year with targeted expenses. In the case of dynamic indicators, the MOUs have other measures as a percentage of project completed.

The Performance Budgeting System was developed in response to the need to budget for those departments where the traditional budgeting system of setting limits on allowable expenditure was proving counter productive. This is especially true in the case of those departments where there was no way of relating outputs to inputs, e.g., irrigation, public works, hospitals, etc. The performance budget is a structured document and provides a descriptive account of the tasks and a work plan for each agency. As in the case of MOUs, this system has a high degree of clarity of objectives. Another similarity is that there is an evaluation at the end of the time horizon which normally is one year. Both the MOU and performance budgeting system provide for static and dynamic indicators and

both require a good information base if they are to succeed. There are also many dissimilarities between MOU and performance budgeting system. One relates to the fact that where there are financial and physical parameters in both cases the emphasis in performance budgeting is still on physical targets. Another point of difference is that performance budgets have only one value for each of the targets and unlike the MOU there is no prioritization amongst the various activities as well as no third party evaluation at the end of the year.

Another performance evaluation system in vogue in India is Management By Objectives -(MBO) which involves three stages: Setting of objectives, action planning and performance review. There are six basic steps in the design and implementation of the MBO process. They are definition of the mission statement or purpose or what the organisation stand for, determination of key result areas (KRA) derived from SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. Fixing of objectives such as time measured cost and quality dimensions, developing an action plan for each objective, control information for feed back and limits given to the subordinate for achieving the objectives. When MBO is implemented, the first step is that determination of KRA for the individual managers. These are decided between the manager concerned and his immediate superior - right up the hierarchy to the Chief Executive. In the case of private enterprise the Chief Executives KRA are decided in consultation with the Board of Directors. In the case of public enterprises this may be done in consultation with the administrative ministry. The objectives are determined from KRAs. This is followed by

action planning and this deals with the strategies for the achievement of the objectives. This is followed by drawing up the Key Result Improvement Matrix (KRIM). In the KRIM, the primary responsibility for achievement of an objective always vests with one person. The superior and the subordinate then decide on control information that need to be provided for periodic monitoring. The last stage in the MBO process is the performance review at the end of the time horizon, normally an year.

The system has also many similarities with the MOU. The mission statement in both the systems are clearly defined at the beginning of the exercise. Targets are determined jointly by both the parties to the agreement. In both these cases, authority limits are specified and performance incentives are linked with the achievement of targets. Both the systems also try to improve performance by clarification of objectives at the initial stages. As far as differences are concerned, in the case of MBO system, it concentrates on internal management to achieve results while the MOU system deals with Government public enterprises inter-face. In the MBO approach the target are set for the enterprise as a whole. Another difference is that in the case of MBO as in many other systems only one value is attached for any performance indicator, whereas in MOU, each parameter has a range of targets which facilitates evaluation of deviation of achievement from targets. The MOUs have weights attached to each of the objectives, so that their relative importance is measured. This is, however, absent in MBO system.

In the case of Zero Base Budgeting (ZBB) system, the first step is to determine the decision package. The decision package is the basic building block of ZBB. It is normally a project or an activity for which a clear cost benefit analysis can be made. All activities are grouped into various decision packages and detailed cost benefit analysis is carried out for each of the package. Then they are ranked in order of their net benefits. The objectives in introducing ZBB in India are identification and sharpening of objectives, examination of various alternate ways of achieving these objectives, selection of best alternative through a detailed cost benefit analysis, prioritization of objectives and programmes, switching off resources from low priority areas to high priority areas and identification and elimination of activities which have outlined their utility. Design packages under ZBB deals with the objectives, programme to realise the objectives, benefits accrued from achievement of objectives, increments for additions to be made to decision activities as well as fixing alternatives to achieve objectives and determining the mode of funding various activities.

As in the case of MOU, ZBB prioritizes the various objectives by ranking the various “decision packages”. The evaluation of the various activities is made in both cases, but in ZBB it is made by the enterprise manager. Both require a good information base for successful implementation.

There are also many dis-similarities between ZBB and MOU. The primary objective of ZBB is optional resource allocation, while the thrust of MOU is performance

improvement through increased autonomy and accountability. Unlike the MOU, ZBB is not a system of agreements or contracts and hence there are no two parties. There is no formal incentive scheme attached to ZBB, while a good performance incentive scheme is an integral part of a good MOU system. Another difference is that ZBB tries to improve performance by adopting the best alternative and by eliminating items that have outlived their utility while the MOU tries to improve performance by clarifying the performance criteria and targets. In the MOU system the focus is on organisation as a whole, i.e., how the organisation achieves the objectives is primarily left to the Chief Executive while the ZBB methodology is activity oriented.

Project planning and analysis is another area that requires attention. Experience has shown that there have been many deficiencies in the planning and execution of projects. In fact, lack of attention at the formulation stage of the projects has been the main reason for the project failure. Efficient management of working capital is a pre-requisite for the success of an enterprise. It is observed that in the case of public enterprises in India that half of the inventories are excessive compared to their production requirements and they need to be checked. The implementation of some of the basic and simple inventory control techniques would go a long way in improving the managerial efficiency of public enterprises. It is believed that public enterprises in India can reduce their level of inventory to a considerable degree ranging from 10 to 20% without any adverse effect on production and sales by resorting to simple inventory control techniques like EOQ, ABC analysis and standardisation of items.



On the basis of the experiences of selected developing countries, is it possible to work out the criteria for public enterprise efficiency ? Performance of public enterprises, in the ultimate analysis, is the ability of the enterprises to meet and fulfil the various national and state level objectives for which they are set up. Prahlad Kumar Basu says that “it is, therefore, necessary to identify, classify and rank the objectives into physical, financial, economic and social objectives”<sup>7</sup>. He further states that the ability of an enterprise to meet these objectives effectively is the final performance indicator of an enterprise.

However, the problem of proper evaluation of the performance of public enterprises both at the Central and State levels, has remained unsolved to a large extent. For improving the efficiency of public enterprises, it is necessary to have continuous monitoring of their performance. This function is almost absent in the state level public enterprises. Hence it is essential to evolve a frame work for performance evaluation<sup>8</sup>.

## **2.6. Financial criteria**

In the literature, more often than not, it is the financial profitability that is used as an important criterion for the evaluation of public sector performance despite the widely accepted conceptual problems with this approach. Perhaps, as Sen argues, the tendency to judge the success or failure of public enterprises based on this criteria might not be fully justified, but it is fairly inescapable in the absence of a different system or well formulated alternative criterion for performance evaluation.

The Committee on Public Undertakings and the Comptroller and Auditor General of India have indicated some broad criteria of efficiency measurement in public sector in resource allocation, resource utilisation, etc. The Arjun Sen Gupta Committee (while agreeing with the difficulties to specify a single measure of efficiency in the case of public enterprises) has suggested an operating efficiency criterion, which includes gross margin on assets for an enterprise, net profit to net worth for core sectors and profit making enterprises, and gross margin on sales for service enterprises. The Committee also suggested a simple monitoring of productivity and costs by examining the direction of change in indicators like capacity utilisation, raw materials cost per unit of output, value added per rupee of wages etc. According to that report, the overall indicator measuring dynamic efficiency is the growth of total factor productivity, which takes into account the contribution of all inputs in the total growth of output.

A number of studies assessing the relative performance of public and private enterprises in India have appeared over the last decades essentially emphasising on the financial criteria. The important studies judging performance in terms of financial profitability include those by Das (1967), Sri Ram and others (1976), Dubashi and Lahiri (1967) and Bhalla and Mehta (1970). Given the fact that financial profitability is far from perfect as an indicator of overall performances, the utility of these studies is rather limited. We must, therefore, look for a set of yardsticks which remain relatively unaffected by market imperfections, the vagaries of price policy, monopolistic or other constraining marketing postures and which in this sense can be treated as more objective. These yardsticks can

be found within the physical characteristics of the productive process. A disaggregation into such elements as financial efficiency and productive efficiency should capture the firm's financial viability. At the same time, it is necessary to temper the financial judgement with an assessment of productivity levels.

One of the major problems in the evaluation of performance of public enterprises is the absence of proper financial management and control in these organisations. Finance departments are not managed by suitably qualified and experienced professionals. No proper account is being maintained by many enterprises. In many cases, the accounts are in arrears varying from 1 to 8 years. One can very well imagine what the plight of these organisations will be. Many a time these enterprises give only provisional working results to the Government and legislature committees which is expected to monitor the performance of the public enterprises. However, with only provisional accounts not much controls are possible to be exercised. The provisional accounts, when finally audited after a lapse of 2 or 3 years, substantially vary from the final accounts. To cite an example, one of the enterprises selected for the study showed a loss of Rs. 7.02 lakhs in a year. But when accounts were published after 1 year, it resulted in a loss of Rs. 350.25 lakhs. Thus the lack of proper and up to date accounts in public enterprises is a major impediment in any system of performance evaluation.

## 2.7. Ratio Analysis

The analysis and interpretation of financial statements are generally aimed at determining the financial position of a firm. Ratio analysis is a part of the total analysis of the financial statements. Financial ratio is used as an analytical technique for assessing the performance of the concern.

Financial analysts have been using ratios since as early as the 1890's but it is only recently that researchers have applied rigorous empirical techniques for enhancing the quality of the ratio analysis<sup>9</sup>. Traditionally, current ratio was popularly used to evaluate the credit worthiness of the business enterprise. Today, ratio analysis involves the use of several ratios by a variety of users including credit lending, credit rating agencies, investors and management professional for judging the position of the firm<sup>10</sup>. Recently, researchers have applied sophisticated statistical techniques to ratio analysis and proved that the statistically derived ratio functions are more accurate and efficient for providing guidelines to the analysis.

It is revealed from studies<sup>11</sup> that ratios are a better measure of prediction of events. The events chosen for prediction in recent studies were concerned with the failure of the firm, non-compliance of loan agreements, bankruptcy, etc.

Prior to the development of quantitative measures of company performance, several agencies<sup>12</sup> were established to supply qualitative information, assessing the

creditworthiness of particular firms. Some studies were made in the 1930's to understand how ratios of a failing business enterprise are significantly different from the ratios of a continuing enterprise. In addition, another study was concerned with ratios of large-asset size corporations that experienced difficulties in meeting their fixed indebtedness obligations.<sup>13</sup>

A recent study done in 1966 indicates how the ratios of failed firms individually differ from the ratios of non-failed firms.<sup>14</sup> This study revealed that ratio analysis is useful in the prediction of failure for a period up to five years before the failure. Additional widespread interest was created by the publication of Edward Altman's article, which suggested that corporate bankruptcy could be predicted reliably by applying a sophisticated statistical technique called multiple discriminant analysis to financial ratio analysis.<sup>15</sup> Since then several other researchers have conducted research in this area. These studies have concluded that the ratios can be used as predictors of events like failure, bankruptcy, etc. Similarly, the ratios commonly used for measuring liquidity, profitability, solvency, etc., are found to be better indicators of events. It is worth examining in this context, findings of previous studies to search the areas for further research. The development of ratio prediction model and the implication of such model are discussed in the following studies.

## 2.8. W. H. Beaver

Beaver for the first time in 1966 attempted to demonstrate that the failure of an enterprise can be predicted reliably through the combined utilisation of sophisticated quantitative techniques and financial ratio analysis.<sup>16</sup> Beaver defined failure as a business defaulting on interest payments of its debt, overdrawing its bank accounts or declaring bankruptcy. His sample consisted of 79 failed firms and 79 non-failed firms. He selected the failed firms on the basis of the industry and asset size of the firms. The non-failed firms were selected keeping in mind industry and size of failed firms. He adopted a paired sample design, i.e. for each failed firm in the sample a non-failed firm of the same industry and asset size was selected. The data in the form of financial statements were collected for 1954-64. Beaver employed 30 ratios which were divided into 6 ratio groups, viz. , cash-flow ratios, net income ratios, debt to total asset ratios, liquid asset to total asset ratios, liquid asset to current debt ratios, and turnover ratios. Beaver used a dichotomous classification test and the percentage error of each ratio for the classification of firm was ascertained. Only one ratio from each of the groups was selected in such a way that the ratio selected had the lowest percentage error within the concerned group. Beaver developed a cash-flow model or liquid asset flow model. According to him the firm is viewed as a reservoir of liquid assets which is supplied by inflows and drained by outflows. The reservoir serves as a cushion or a buffer against the variation in the flows. Therefore the solvency of the firms can be defined in terms of profitability that the reservoirs are exhausted, at which point the firm becomes unable to pay its debts.

A comparative study of mean values of the ratios for the failed and non failed groups indicate whether the mean values of the ratios differ from failed to non failed groups. But the comparative study of the ratios does not indicate the predictive ability of the ratios. Beaver used the dichotomous classification test for prediction and therefore the values of the ratios are arranged separately in an ascending order. In that case each ratio has an optimal cut off point which minimises the per cent age of incorrect prediction. If the value of a ratio falls below the cut off point, the ratio assigns the firm to the failed group and vice versa. After each firm has been classified, the observed prediction is compared with expected classification and the per cent age of error is ascertained. This procedure was followed for each of the 30 ratios. Beaver found six ratios significant from the comparative study of the mean values. He ascertained the per cent age error of these six ratios from the dichotomous classification tests. He concluded that the ratio of cashflow/total debt had an excellent discriminating ability throughout the period of 5 years. The ratio of cash flow/total debt mis classified only 13% of the sample for one year before bankruptcy and 22% of the sample for 5 years before bankruptcy. The ratios did not predict the failed and non failed firms with the same degree of success. Non failed firms can be correctly classified to a greater extent than the failed firms. His findings are based on the univariate model which has several limitations. Yet Beaver's study made a good beginning for assessing the quality of ratios by employing quantitative techniques. Thus, his study warrants its distinction as a land mark for further research in ratio analysis.

Beaver in another paper<sup>17</sup> attempted to emphasise the need for empirical verification of a priori beliefs, by citing one area where widely held beliefs were found to be erroneous when examined by empirical evidence. He had evaluated empirically the alternative accounting measures in terms of their ability to predict events on the basis of accounting data. This study is extension of an earlier effort based upon the same body of data<sup>18</sup>. Liquid asset ratios played the major roll in the traditional ratio analysis. A liquid asset measure, current assets, determined the test of solvency. In this regard, Foulke states, "The classification of current assets is undoubtedly the most important classification in the balance sheet, as current asset largely determined the going solvency of a business concern"<sup>19</sup>. The hypothesis in the literature with respect to the predictive ability of liquid asset measures is of two types:

(1) Liquid asset measures vis-a-vis non liquid asset measures, and (2) liquid asset measures vis-a-vis each other. It is believed in the literature that the liquid asset ratios predict the failure better than the non liquid ratios. Similarly it is believed that the liquid asset ratios are more useful for short term production and the non liquid ratios are useful to the long term prediction<sup>20</sup>. Beaver attempted to test these two hypothesis which are held good in the literature. He studies 14 ratios which were divided in to non liquid asset ratios and liquid asset ratios. Three non liquid ratios were studied; cashflow to total debt, net income to total asset and total debt to total asset. Cash flow was defined as net income plus depreciation, depletion, and amortization.. Total debt includes all liabilities plus preferred stock. Eleven liquid asset ratios were studies. These ratios were divided



into three common denominator groups: a total asset group, a current debt group, a net sales or turnover group. Within each denominator group, four liquid asset measures were studied: current assets, quick assets, net working capital and cash. Although the current asset was the first liquid asset measure used in solvency determination, it has been severely criticised.<sup>21</sup> One criticism is that the inclusion of inventory impairs the measure's usefulness. This is found more so in the case of failed firms. Another criticism is that the item of current assets, when analysed in the form of current ratio, is subject to manipulation through a practice known as window dressing which involves the temporary payment (or incurrence) of current debt just prior to the financial statement data and results in a spurious improvement in the current ratio.<sup>22</sup>

Beaver used these eleven ratios for the data as utilised in the previous study.<sup>23</sup> The data were analysed at three levels. (1) the dichotomous classification test, (2) the comparison of mean values of ratio components, and (3) the likelihood ratio analysis. Beaver ascertained the percentage error of each ratio by conducting the dichotomous test. The findings of the study are quite interesting. The most striking feature of the data is the consistently superior performance of the non-liquid asset ratios. The cash flow and net income ratios have a lower percentage error than other liquid asset ratios in all five years before failure. The debt asset ratio predicts better than those eleven ratios for a period of one, four and five years before failure. Surprisingly, the superior predictive power exists not only in long-term but also in the years shortly before failure. The superior predictive ability of the non-liquid asset ratios in the short term is contrary to what the literature

asserts and warrants explanation. Beaver has drawn another inference from his analysis. It was believed that the net working capital would predict better than current assets. Quick asset also, on balance, is a better predictor than current assets although its margin of superiority over current assets is not as large as the that of net working capital. An unexpected finding was the performance of cash, which predicted better than both current assets and quick assets.

Beaver has made a comparative study of the mean values of the ratios for the failed and non-failed firms. He finds that failed firms generate less sales and have poor cash flow and net income position. They incur heavy debt. This combination of causes leads to a marked deterioration in their solvency position. He admits that the comparative mean value study could not be an alternative to the dichotomous test because it relates solely on the comparison of means. Differences in mean values are difficult to interpret without additional knowledge about the ratio distribution. A likelihood ratio analysis is another test which was conducted by Beaver. This test is similar to the classification test. He has emphasised the classification test because it is a more convenient and accurate measure.

Thus, Beaver showed that the a priori feelings in the literature did not hold good. He concludes that the financial ratios could be useful in the prediction of failure for at least five years prior to the event. "The user cannot choose among ratios indiscriminately. Persistent differences in predictive ability were found, many of which were not correctly anticipated by priori arguments in the literature"<sup>24</sup>.

## 2.9. Edward Altman

In the previous study, the methodology was essentially univariate in nature and emphasis was placed on individual signals of impending problem.<sup>25</sup> This type of study, based on the univariate model, is susceptible to faulty interpretation and is potentially confusing. To overcome the limitations of the univariate model, Altman suggested the multi variate model, consisting of a few important variables. It was also necessary to attach some weights to the variables in the model on the basis of their significance in defining the events. Altman adopted the multiple discriminant analysis as an appropriate statistical techniques. The multiple discriminant analysis was first used in the study, conducted by R.A. Fischer in 1930s. In the earlier years the discriminant analysis was used mainly in the biological and behavioral sciences. More recently, Durand used this method to solve financial problems such as consumer credit evaluation and investment classification.<sup>26</sup> Walter utilised the model to classify high and low price earning ratios of firms<sup>27</sup> and Smith applied the technique for the classification of firms into standard investment categories<sup>28</sup>.

Altman had developed the model by collecting necessary data relating to the objects in the groups and thereby deriving their linear combination which becomes a discriminant function between the groups. Based on the financial ratios of certain selected companies, he has evolved a set of discriminant coefficients, which when applied to actual ratios formed mutually exclusive groupings. The conceptual part of the model is discussed later.

The model developed by Altman formulates only two groups of firms, namely, bankrupt and non-bankrupt firms. The sample selected for one group consisted of bankrupt firms which filed bankruptcy petitions during 1946-65. The other group included firms in existence during 1966. After the two groups were selected, necessary data were collected from the financial statements relating to the periods preceding the filing of bankruptcy petitions by the first group of firms. Altman used 22 ratios for evaluation and these ratios were broadly classified into five categories, viz. Liquidity, profitability, leverage, solvency and activity ratios. Out of 22 ratios, 5 ratios were finally selected on their relevance in prediction of corporate bankruptcy. These 5 variables were introduced in the model and the discriminant scores or Z values were obtained with the help of the discriminant function in the form:

$$Z=V_1X_1+V_2X_2,\dots,+V_nX_n$$

Where  $V_1, V_2,\dots, V_n$  are the discriminant coefficients

$X_1,X_2,\dots,X_n$  are independent variables (ratios)

The Z score of each firm was used for classifying the firms. The final profile of variables was arrived at; first, by determining the relative contribution of each independent variable and, secondly, by evaluating the correlations between the relevant variables. The relative accuracy of various profiles in the context of prediction was also tested. The variable profile selected finally did not include the most significant variables out of the 22 original ones. Judging from the contribution of the entire variable profile, the one which was doing the job best was selected. The final discriminant function included the following ratios:

$X_1$ : Working capital/Total assets

$X_2$ : Retained earnings/Total assets

$X_3$ : Earnings before interest and taxes/Total assets

$X_4$ : Market value of equity/Book value of total debt

$X_5$ : Sales/Total assets

Altman performed the 'F' test to find out the individual discriminating ability of the variables. The test related the difference between the average values of the ratios in each group to the variability of values of the ratios within each group. He found that variables  $X_1$  through  $X_4$  were all significant at the 0.001 level indicating extremely significant differences in these variables between the groups. Variable  $X_5$  did not show a significant difference between groups, yet it was included in the model. Altman employed one more technique, namely, the scaled vector to determine the relative contribution of each variable to the total discriminating power of the function and the interaction between them. The scaled vector is computed by multiplying corresponding element by the square root of the diagonal elements of variance-covariance matrix. In his study, the large contributors to group separation of the discriminant functions are  $X_3$ ,  $X_4$  and  $X_5$  respectively. Altman has shown that Sales/Total assets ratio has larger contribution in the group separation and this ratio was significant in the univariate study. His study indicates that bankrupt firms suffer from losses, poor sales and lack of working capital funds.

Having established the model, he conducted several tests to ascertain the accuracy of the model. His model classified correctly 94 per cent of the firms in the initial sample for one year prior to the bankruptcy. When this model was used for the two years before the event date of the units in the initial sample, the percentage of the accuracy in the classification was reduced to 72.00. He tried a similar model on the secondary sample for one year prior to the date of event. Surprisingly, the accuracy of the model for the secondary sample data was higher than the accuracy of the model-based on the initial sample data-by 2 per cent. He developed another secondary sample wherein the firms were not bankrupt but they did suffer from heavy losses in the last two years or so. The model classified 79.00 per cent of the firms thus , the discriminant model indicated encouraging results. Altman had tried to find out the long range accuracy of the model. He tested the model on the initial sample for three years, four years and five years before the event. The percentage of accuracy was reduced to 48.00, 29.00 and 36.00 respectively. This is logically true as the lead time increases the relative creditive ability of the model would decrease.

Altman concluded that the Z score of 2.675 was the best cut off point which maintained minimum mis-classification. He ascertained this cut off point by preparing several frequency tables. He pointed out that this model could be used in loan application evaluation. This model can save time and cost in the evaluation of loan applications. He further suggests that the discriminant model is used correctly and periodically has the ability to predict corporate problems early enough so as to enable management to realise

the gravity of situation in time to avoid failure. If failure is unavoidable the firm's creditors and stock holders would be better off if a merger with the stronger enterprise is negotiated before bankruptcy. One more use of the model would be to the analyst who can use the model to predict failure and such prediction can help him to recommend an appropriate investment policy.

Altman created interest in the minds of academicians and the management people by publishing one more paper on the implication and suggestion for commercial loan evaluation<sup>29</sup>. He extended the implications of his model to the area of commercial loan evaluation based on the information gathered in his previous study.<sup>30</sup> He investigated the results of the previous study and attempted to find out how best the discriminant model would help loan officers of commercial banks and other business lending institutions to develop loan evaluation techniques. He found that most of the variables which are relevant in the context of bankruptcy are also potentially important to the prediction of loan defaults. This model, like any other credit scoring model would reduce the time of loan officers in evaluating loan applications. The time saved by doing this exercise can be utilised for examining in detail the applicants whose scores are much below cut off point. It would be applied quickly and cheaply in the initial stages of negotiation and conceivably diminish follow up investigation. He referred to the small banks, which might not have the resources to develop such a time saving computerised model and suggested that there could be an outright transfer of technology from the larger to the small institutions. He indicated that this model is to be updated in the light of experience.

Finally, he concludes that this type of model would help the bank, provided care is taken in developing the model.

#### **2.10. David Ewert**

Ewert investigated in 1968 on the basis of information supplied in the Dun and Bradstreet credit reports that ratios can predict non-repayment of receivables, keeping 82 per cent accuracy. His sample consisted of 300 trade accounts of a California manufacturing concern.<sup>31</sup> His 17 variables included only two ratios and the other 16 variables were non-ratios like trade credit payment reports, legal form of organisation, ownership of premises, etc. His sample consisted of small as well as large business concern. By using multiple discriminant analysis, he found that non-ratio variables can do equally well in the prediction of non repayments. Ewert found that the ratios included in the list of 17 variables did predict equally well the non repayments and his model correctly classified 82% of the trade accounts.

#### **2.11. Marc P Blum**

In 1969, Blum constructed a theoretical model based on accounting and financial market data, which was designed to discriminate between failing and non-failing firms.<sup>32</sup> He defined failure as “entrance into a bankruptcy proceeding or an explicit agreement with creditors which reduced the debts of the company.” His sample consists of 115 industrial firms which failed during 1954-68 (with liabilities greater than 1 million dollars) and a



paired sample of 115 non-failing firms being similar with respect to industry, annual sales, number of employees and fiscal year. Data up to eight years prior to failure were collected when available; however, five years of data prior to failure were found optimal. Based upon validation sample test, Blum concluded that his model had an accuracy of 93 to 95 per cent when failure occurred within one year of the statement date. The accuracy declined to 80 per cent for prediction three years prior to failure. Blum's primary contribution was the inclusion of ratio trends and variance (stability over time) as predictors. His best overall function contained twelve ratio variables of which five were measures of ratio trend or variance.

#### **2.12. Paul A Meyer and Howard W Pifer**

Meyer and Pifer attempted to build up a model for prediction of bank failure.<sup>33</sup> Their study indicated the factors affecting bank failure. Such factors were divided into four groups: (1) local economic conditions, (2) general economic conditions, (3) quality of management, and (4) integrity of employees. The sample consisted of 30 solvent banks. The data were collected in the form of financial statements and from the report of the Federal Deposit Insurance Corporation. The financial information was used to work out 28 operating ratios and 4 balance sheet ratios. The data were gathered for a period of six years. They used multi-regression analysis to find out the predictive ability of the ratios. Their model correctly classified 80 per cent of the banks in the initial sample and 72 per cent of the banks in the hold-out sample for one year and two years before the failures<sup>34</sup>.

When the lead time is three years or more, financial variables are unable to discriminate between viable and failing banks. This study suggests that along with financial ratios the report of the Federal Deposit Insurance Corporation should be studied to make a better prediction of bank failures. Having ascertained the failing banks well in advance, proper action may be taken to avoid the failure. Thus, this study emphasizes that a study of ratios alone cannot predict the failure of banks.

### **2.13. Craig Johnson**

In 1970 several criticisms were made by Craig Johnson on ratio prediction as stated below.<sup>35</sup>

- (1) The models built up for predicting failure have not enabled the analyst to differentiate between firms which will fail and firms which will almost fail. Any exercise on the prediction of alternatives to failure would be more meaningful.
- (2) Although the ratios are usually compared with similar ratios for the same firm over time or with ratios of like firms, neither the absolute levels of ratios nor their relative magnitudes can be evaluated in isolation. Hence, ratios have a meaning only if they are related to some standard.
- (3) Ratios by themselves cannot describe a dynamic system. The variables in the ratio analysis are defined as fixed over a period of time and, therefore, they lack an explicit dependence upon time. As a result, ratios are limited to a comparative static analysis but the failure of a firm is a dynamic process.

He further states, “The Altman’s model demonstrates that failed and non-failed firms have dissimilar ratios, not that ratios have predictive power. The crucial problem is to make an inference in the reverse direction, i.e. From ratios to failure.” It must be demonstrated that stratified random sample of ratio values can imply failure and non-failure. Such a demonstration requires a decision model to logically link the given ratio values to groups of failed and non-failed firms. Unfortunately, no model has been provided not has any statistical evidence been presented.

He concluded that Altman did not provide any evidence of the ability of ratios to predict failure. He has not established any logical link between the given values of ratios and groupings of failed and non-failed firms. Merely measuring the degree to which the state of failure is related to the current status of the firms does not differentiate between near-failure and out-right failure. Without additional evidence or a decision model, the practical value of ratio analysis to the failure issue is still an open question.

Altman replies to the queries made by Prof. Johnson who urged that the multiple discriminant analysis does not distinguish between failure and alternatives to failure like mergers, etc.<sup>36</sup> Johnson states that Altman’s study does not provide any model on the strategic random sampling of the ratios selected and their linkage with the grouping of failed and non-failed firms.

Altman replies that the question is not whether a firm should be bankrupt if it displays certain ratio measures but whether its symptoms are similar to other firms which have continued to deteriorate towards bankruptcy. The discriminant bankruptcy model is a form of stochastic analysis specifying a general model for predictive purposes. More specific models can be developed for predicting results of individual firms. Ratio models dealing exclusively with firms in a particular industry or product line will yield more representative parameters which can be used for future predictions of other firms in the same line of business. Replying to Johnson's query, Altman states that models utilising ratios can be predictors of failure but this should not preclude complementary opportunistic analysis. It is obviously true that alternative strategies, e.g. mergers, may avert a formal bankruptcy situation. This aspect does not diminish the overall usefulness of the ratio model.

Johnson argues further that alternatives to bankruptcy, like merger, may present themselves and thereby cause predicting errors of the Type II variety. Altman replies that financial ratios cannot trace the causes of failure but can attempt to measure the extent to which a firm's policies and problems have resulted in poor performance. In many cases, the serious deterioration of the firm as measured by the ratios could have been detected even three years prior to bankruptcy.

Johnson's major concern is as regards the 'definitional' nature of ratios with respect to bankruptcy. He states that Altman has failed to establish a logical relationship between

the ratios and the prediction of bankruptcy. Altman counter argued that bankruptcy arises due to negative working capital and negative financial status. Negative working capital is measured by the ratio of negative working capital to total assets and negative net worth is measured by the ratio of negative net worth to total assets. Altman has empirically tested these hypotheses and found that these two ratios were significant in predicting the bankruptcy with 82 percent accuracy.

Johnson argues that the ratio-discriminant model is not dynamic in nature and therefore cannot capture whatever time series contribution is relevant towards failure contributions. Altman admits that more work needs to be done in this area. Some new work of combining information theory and ratio analysis is perhaps potential with a view to add dynamics to failure prediction.

#### **2.14. Robert Edminister**

In an investigation of ratio analysis of business firms borrowing or receiving loan guarantees from the Small Business Administration (SBA), Edminister found that good predictions could be made by using a ratio function. A business was defined as a failure if its SBA loan was written off as a loss; otherwise, the business was considered a success<sup>37</sup>. He drew a sample of 21 borrowers who failed to repay and 21 borrowers who had not failed to repay loans, granted under the SBA programme. The data were collected for a period of three years. The borrowers were selected on the basis of industry and size

of assets. Edminister considered all the ratios that were found significant in the studies conducted by Beaver, Altman, Ewert and Blum, except the net operating margin<sup>38</sup>. Thus, Edminister considered in all 19 ratios.

Edminister sets the following hypotheses.

- 1) A ratio level is a predictor of small business failure. The hypotheses represented the use of ratios in their crudest form: no adjustment is made for variations between industries nor are the ratios compared with one another. It is based upon the theory that there are standards which are applicable to all firms. The relative level of borrower's, ratio to the average ratio of other small business in the same industry is hypothesized to be a predictor of small business failure. To test this hypotheses the ratio level of certain industries, based on the RMA and SBA published annual statements, was considered and compared with the ratio level of the borrowers in this study.
- 2) A three years' trend of each ratio is a predictor of small business failure. A weighage may be given for an upward trend and a downward trend. Edminister assigns a value '1' for the upward trend and '0' for the downward trend.
- 3) The three years' average ratio is a predictor of small business failure. Averaging is expected to smooth the ratios and to result in more representative figures than that calculated from only the most recent statement. Edminister works out the averages for RMA and SBA relative ratios to provide an index of the relative firm to industry position over 3 years.

4) The combination of the industry relative trend and the industry relative level for each ratio is a predictor of small business failure. This hypotheses has not been presented in previous empirical results, but is an explicit representation of the conditional nature of ratios, recognised by the ratio analysis. To establish an interaction between the trend and the level of ratios Edminister formed four type of interactions, namely, trend up high level, trend up low level, trend down high level and trend down low level for each of RMA and SBA relatives.<sup>39</sup>

After financial statements were compiled and ratios calculated for the borrower and the industry, the next step was to relate the ratios to failure. He adopted four methods of analysis.

- 1) The borrowers ratio was divided by the respective industry ratio (RMA or SBA) to form an industry relative.
- 2) The trend of the industry relative was noted as updown or non-existent.
- 3) The three years average ratio was calculated, and
- 4) The trend and the recent level were considered together as a joint condition

The trend and level were believed to be variables which might 'interact' or act in regard to predict failure. To determine the ability of these ratios to predict failure, it was attempted to use the multiple discriminant analysis.

He adopted the following steps to measure the discriminant function of the ratios:-

- 1) Comparative figures of the financial statement of the sample units with RMA and SBA averages figures,
- 2) Comparative ratios of the sample units,
- 3) Appropriate industry relative ratios,
- 4) Comparison of sample units' ratio with standards to determine values of each of the seven variable,
- 5) Substituting the value of each variable into the credit function and working out capital Z values, and
- 6) Comparison of the sample unit's Z values with predetermined cut off points defining 'accept', 'grey' and 'reject' areas

Edminister found that the discriminant model developed for small business demonstrated 92% accuracy in the initial sample and 80 per cent accuracy in the validation sample, The preliminary results indicate that ratio analysis may benefit by comparing industry averages with borrowers' ratios and by using a small number of ratios representing different borrowers' characteristic rather than one or a few ratios describing very similar borrower's conditions.

The discriminant function demonstrates an ability as great as those functions recently estimated for much larger firms. However, the small business function fails to discriminate when only one statement is available whereas Altman and Beaver show that



one financial statement is sufficient for a highly discriminant function for large business. This leads to the conclusion that at least 3 consecutive financial statements are necessary for analysis for a small business.

While the ratio analysis may be specifically described in terms of present conditions and future events, the algorithms appear highly complex. Corresponding to each ratio is an optimum analytical method such as averaging or division by industry standards. Multiple discriminant analysis offers one mean of selecting an optional set of ratios and offers of assigning weights to obtain a relatively simple function. Analyst interested in predicting small business failure may find this function not only more accurate method but also a more efficient technique than the subjective process currently practiced. Thus, Edminister attempted to improve the quality of the ratio analysis by considering average ratios, ratio trend, ratio level and the interaction of trend and the level. He conclude that the linear combination of these variables can produce better prediction.

All the above methods of performance evaluation were developed taking into account the conditions obtaining in the private sector companies in the developed countries. It may not be therefore possible to apply any of those methods in toto to public enterprises either at the central or state level. However, having some of the approaches of ratio analysis whether a system can be developed for the performance evaluation of public enterprises in India is a possible area of research that should be considered seriously.

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## CHAPTER - 3

### PUBLIC SECTOR IN KERALA

The study on the performance of public sector and the Government- public sector relationship have been given much importance lately by Government policy makers, news media, research scholars, and international organisations such as the world bank.

The public sector in Kerala continues to play an important role in the economy and society of Kerala. These State enterprises enjoyed a lot of protection and were not under any pressure to prove themselves to be commercially viable. Such kind of freedom resulted from the basic principle that the public sector were the instruments for social development only. Apart from these, the enterprises were “haunted by one problem or the other which defied easy solution”. The gradual opening up of the national economy had its effects on the industrial policy of Kerala too. More emphasis has now been placed on the profitability aspect. To move from a financially and legally protected climate to a self supporting establishment is certainly a gigantic task. The turn-around efforts are all the more difficult for chronically sick enterprises. However, the efforts for restructuring and reforming will be worthwhile, since the financial crunch is all the more felt by the Government due to its inability to finance, development projects in the State. In a way the Government has been forced to find solutions for the different inherent problems dogging the state enterprises. The liberalisation programme and public sector

reforms programme of the Government of India were inevitable reasons for the reawakening in policy matters relating to the public sector in Kerala.

The major problems inherent in the state enterprises include problems in public accountability, unavailability of enough capital, excess governmental control, inappropriate management practices, dated technology, increased competition from the private sector, non-existence of contractual agreements such as Memorandum of Understandings, etc. All these problems continued to exist for a long period of time and have reached mammoth proportions.

The state enterprises are essentially owned by the government. The parliament being the representatives of the people the government is accountable to the parliament for the functioning of the public sector. At the state level the ministers of the State Government is formally answerable for the state enterprises. But such accountability to the public have deteriorated over the years. Incidentally the state enterprises come under the jurisdiction of various departments such as Industries department, Finance department, Agriculture department, Housing department, etc. All these departments, as well as the state enterprises are routinely administered and managed by bureaucrats. The ministers in charge of different departments had and still continue to have enormous control and clout over the different departments and the state enterprises. Such freedom has, however, been often misused. Apart from this the rigorous governmental controls and gross neglect of public accountability had a very negative influence on the functioning of



the state enterprises. But the government will not be able to part with managerial freedom to the enterprises to an extremely large extent as well, since the enterprises are essentially 'public' and not 'private'. Absolving of all the government control is not legally possible. Often, much autonomy has been granted to public enterprises. But such autonomy has been only on paper and not in actual practice. The necessary distance between the government and public enterprises was not maintained. If the enterprises are not allowed to benefit from their autonomy, there would be no point in establishing them as autonomous units with high powered boards and their own independent staff.

Another vital area of concern is the non-availability of capital for organisational and process development. The governmental financial support was directed towards day-to-day running rather than for strategic growth. Thus long term performance got a beating. Very few public enterprises such as Kerala Agro Machinery Corporation Ltd. could generate consistent profits. However, the kind of capital required for substantial growth is still not met. The loss making companies need massive capital investment, if some positive change in performance is to be seen.

The practice of inappropriate management methods and existence of mundane management systems in the state enterprises became the order of the day. This has often been attributed to neglect of the government and unnecessary government controls. Although many of the procedures were streamlined and the controls were taken off or relaxed at the Government of India level in the wake of liberalisation, nothing worthwhile

has happened at the state level in Kerala. On the contrary, controls have become more stringent. The public enterprises need permission of Government even to fill up sanctioned and existing vacancies. Project costing even Rs. 5 lakhs need sanction of the Government, i.e. the request will pass through the concerned administrative department, public enterprises board, finance department and finally planning and economic affairs department. Instead, the enterprises were run on bureaucratic lines and consequently inertia crept in all the functions. Coupled with this bureaucratic climate, was the volatile industrial relations climate. A plethora of trade unions flourished due to its backing by political parties. The state enterprises operated or closed almost according to the will of the trade unions. The socialist ideologies had a deep impact on the workers and the labour movement, undoubtedly has caused the workers to become better organised. Well justified wages and rights were won by the trade unions. However, such unity was also often times misused, resulting in labour indiscipline and unjustified work stoppage in many of the state enterprises. The number of mandays lost in Kerala has continued to be the highest in India. The public sector enterprises were often in a turmoil consequent upon the unchecked trade union activities of the recalcitrant workers, who have often been in the habit of fighting for their rights only, very often inflated, without any regard whatsoever for their duties and responsibilities. Such a stand, over a long period of time, resulted in the development of a work force striving towards industrial peace. In order to achieve lasting industrial peace, attitudinal changes and mutual understanding should be brought about.. Straight forward communication and unlimited commitment can go a long way in improving the industrial relations climate.

The upgradation of existing technology in the state enterprises have long been overdue. Operations based on obsolete technology has led to losses in many ways. The consumption of resources of every kind has been high with obsolete technology. Considering the scarce resources, especially energy, the continuation of the usage of downgraded technologies find little justification. Apart from this, the low operational efficiency greatly affects the overall performance of the public enterprises. New technology, no doubt, is expensive. But this has not been the sole reason for not resorting to technological upgradation. The neglect and mis-management of the state enterprise and the objection on the part of trade unions played their role. Added to this was the financial shortage of the state government. The obsolete technology also had a very negative effect on the product marketing as well. While other similar products had improved quality, the products of the state enterprises continued to have a lower quality. In a world where competitive marketing and quality standards are increasing day by day, the state enterprises do not really get a fair chance unless the operations, quality of the product and the marketing methods are well upgraded.

The new mantra in policy making circles is the Memorandum of Understanding (MOU). It is a contractual agreement made between the government and the state public sector undertakings. While the former provides the necessary support and fulfils its obligation, the latter lives up to its promise of achieving the agreed targets. The MOU is considered as the tool to turn-around the public sector. This concept is the brainchild of the “Arjun Sengupta Committee” to review the policy for public enterprises. The MOU is also an

effective tool for periodic performance evaluation since the targets to be achieved are already specified in it.

The Sengupta report describes the concept of MOU as follows:-

“ The holding company would also specify its plans for investment, production, capacity utilisation, dividends, etc. for a five year period and therefore enter into the Memorandum of Understanding with the Government on a mutually agreed basis. Certain obligations would also be cast on the ministry or department regarding provisions of equity, price level, etc. The Memorandum of Understanding would be reviewed every year and updated and the performance of the holding company judged on this basis, making allowance for the failure or otherwise of the ministry or department to fulfil its part of the understanding “

The MOU, however, needs a number of refinement and clarifications. Inherent drawbacks include absence of adequate information while negotiating MOUs and the government relies on the information provided by the enterprises negotiating the MOUs. Thus the new targets are not any different from the original targets. Also there is an absence of a competent body which can do the work of monitoring in respect of violation of the terms of the MOU. With the necessary changes, MOUs can certainly prove to be an effective tool for the promotion of performance in public sector enterprises.

### **3.1. Public Sector Manufacturing Enterprises**

The public sector manufacturing enterprises in Kerala are divided into seven groups.

These seven groups are:-

- 1) Ceramic & Refractories
- 2) Chemical
- 3) Electrical
- 4) Electronic
- 5) Engineering
- 6) Textile
- 7) Wood based \*

\* not included in the present study.

A review of the performance of these sectors in the last year of the review period, i.e. , 1994-95 is outlined below:-

#### **3.1.1. Ceramic & Refractories**

Ceramics and refractories sector, which consists of six enterprises, provide employment to 1467 persons (1.09% of total employment in public enterprises) and account for 0.51% of total capital invested).

The sector as a whole has not been able to improve its performance during 1994-95. Only two enterprises, viz. Kerala Clays & Ceramic Products Limited and Kerala Construction Components Limited have reported profits during the year. The Kerala Ceramics Limited made losses as against profit during the previous year.

The Kerala Premo Pipe Factory Limited and Chalakudy Refractories Limited have remained inactive during 1994-95. No figures are available from these companies, while Kerala Construction Components Limited has provided information on working results only. For the sake of analysis, figures relating to earlier years have been considered in the case of the former two, while complete information is not available in the balance sheet of Kerala Construction Components Limited even for earlier years and hence its working results only have been considered in the analysis. However, working results have not been considered in the case of the former two since they have been inactive.

### 3.1.2. Chemical Industries

The sector consists of twelve enterprises. These enterprises together provide employment to 7216 persons, which forms 5.38% of the total employment in the state public enterprises. The capital invested in these twelve enterprises account for 4.51% of the total investment in public enterprises.

The sector as a whole has performed better during the year 1994-95. The number of enterprises earning profits have gone up to six. These enterprises together made profits worth Rs.6328.36 lakhs. However, three enterprises have remained inactive during the year. These are Kerala State Detergents and Chemicals Limited, Kerala Soaps and Oils Limited and Kerala State Salicylates and Chemicals Limited. Previous years' figures (except working results) have been considered in the case of these enterprises for the analysis. While Kerala Minerals & Metals Limited, The Travancore Cochin Chemicals Limited, Malabar Cements Limited, The Travancore Cements Limited and Travancore Titanium Products Limited continued to earn profits. The Pharmaceutical Corporation (IM) Kerala Limited turned around and made profits. Kerala State Mineral Development Corporation Limited is yet to commence commercial activity.

### 3.1.3. Electrical Equipment

Five enterprises which together account for 2.84% of the total capital invested in state public enterprises constitute this sector. These enterprises together provided employment to 4395 persons during the year 1994-95.

The performance of the sector as a whole deteriorated during 1994-95. While the number of profit making and loss making enterprises has remained 3 and 2 respectively, the sector made a net loss of Rs. 1780.30 lakhs, an increase of Rs. 407.56 lakhs in losses as compared to the previous year. Kerala Electrical & Allied Engineering Company Limited

and The Metropolitan Engineering Company have incurred higher losses. Transformers & Electricals Kerala Limited has earned much higher profits during the year. Traco Cable Company Limited and United Electrical Industries Limited are the other two profit earners.

#### 3.1.4. Electronics

The electronics sector consists of ten enterprises. The total capital invested in all these ten enterprises total to Rs.23271 lakhs which is 4.14% of total capital invested in state public enterprises. The sector provides employment to 3751 persons (2.80% of total employment).

The overall performance of the sector has worsened during the year 1994-95. Only two enterprises could earn profits as against four during 1993-94. While Keltron Electro Ceramics Limited and Keltron Resistors Limited improved their performance and earned better profits, Kerala State Electronics Development Corporation Limited and Keltron Component Complex Limited, the other two units that had made profits during 1993-94, have made losses this year. KELTRON made huge losses amounting to Rs. 31.65 crores as against a profit of Rs. 1.04 crores in 1993-94. All the other enterprises except Keltron Rectifiers Limited have incurred increased loss during the year 1994-95.



### 3.1.5. Engineering

The engineering sector constitutes eleven enterprises which account for 3.56% of the investment in public enterprises and employ a total of 3536 persons (2.64% of total employment). There has not been much difference in the net profitability of the sector during the year 1994-95. However, only three units could earn profits as against four during the previous year. The Metal Industries Limited which had earned marginal profits during 1993-94, has recorded losses during the current year. Kerala Agro Machinery Corporation Limited, Kerala Automobiles Limited and Kerala State Construction Corporation Limited have continued to earn profits. Of these, Kerala Automobiles Limited has improved its performance significantly. Autokast Limited, Kerala Hitech Industries Limited, Steel Complex Limited and Steel Industrials Kerala Limited are the top loss making companies. Kerala Hitech Industries Limited commenced commercial activity during the year 1994-95.

### 3.1.6. Textiles

Four enterprises in the textiles field constitute this sector, which accounts for 0.77% of total capital invested in state public enterprises and employ 3043 persons (2.27% of total employment). The performance of the sector as a whole has come down during the year under review. From a net profit position during the previous year; it has made a net loss amounting to Rs. 2.49 crores. Only Kerala Garments Limited could earn profits during the year. Kerala State Textile Corporation Limited which had made profits during 1993-94, has incurred losses during the current year. Sitaram Textiles Limited and Trivandrum Spinning Mills Limited have incurred higher losses during the year.

### 3.2. Performance review

A review of the performance of the 48 public sector industries, during 1994-95, is as follows:-

### 3.2.1. Kerala Construction Components Limited

Date of incorporation : 21-2-1957

Present Activities: Manufacture and sale of sand lime bricks/fly ash bricks.

Summary of performance: This company has not been able to furnish complete information during 1994-95. Its audit is in arrears since 1991 and several items falling under current liabilities and current assets have been stated to be not assessed. Working results as furnished show a decline in the net profits. The company was able to make only a marginal profit of Rs.0.09 lakhs as against Rs. 5.37 lakhs earned during 1993-94. The year also saw a decrease in the income earned by the company.

<u>Working Results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	79.28	
B) Other Income		
C) Increase/decrease in stock of finished goods & Work in process.	0.04 -----	79.32
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	31.00	
B) Power, fuel and water charges	1.58	
C) Other expenses	6.05	
D) Personnel expenses	22.90	
E) Interest and bank charges	2.82	
F) Selling & Distribution expenses	3.45	
G) Administration expenses	10.75	
H) Depreciation	0.68 -----	79.23
Net profit/Loss		0.09

### 3.2.2. Kerala Premo Pipe Factory Limited

Date of Incorporation

12-9-1961

Products manufactured: Pipes and collars for conveying water.

Summary of Performance: The company is defunct for the last few years and hence no details regarding the performance could be collected.

### 3.2.3. The Kerala Ceramics Limited

Date of incorporation 1-11-1963

Present activities Engaged in production of porcelain ware and rectified clay.

Summary of performance: The company has performed badly during the year 1994-95. The income has come down to Rs. 446.60 lakhs from Rs. 623.77 lakhs during the previous year and the company has made a loss of Rs. 95.37 lakhs as against a profit of Rs. 15.38 lakhs during 1993-94. The bad performance, it is stated, is due to scarcity of clay, excessive break down of machinery and market constraints.

<u>Working Results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/service charges	453.03	
B) Other income	13.97	
C) Increase/decrease in stock of finished goods and Work in process	-20.40	
	-----	446.60
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	73.68	
B) Power, fuel and water charges	121.32	
C) Excise duty	13.27	
D) Other expenses	11.96	
E) Personnel expenses	197.35	
F) Interest and bank charges	73.97	
G) Selling & Distribution expenses	23.91	
H) Administration expenses	16.51	
I) Depreciation	10.00	
	-----	541.97
Net profit/Loss		-95.37

### 3.2.4. The Chalakudy Refractories Limited

Date of incorporation

15-3-1969

Activities: Manufacture and sale of refractory bricks of IS 6, IS 8, High Alumina, Sillimate, Zircon, Insulation and Acid Resistant Bricks and Mortars.

Summary of performance: It has been reported that the company had ceased operations from 1992 onwards and such no data is available regarding the performance.

### 3.2.5. Kerala Clays and Ceramic Products Limited

Date of incorporation 27-6-1984

Present activities: Mining and purification of china clay.

Summary of performance: The company has performed well during the year under review. The revenue earned has increased to Rs. 190.44 lakhs fetching a net profit of Rs. 22.72 lakhs as against a profit of Rs. 9.17 lakhs during the previous year. The company has declared dividends for the sixth year in succession. There has been sharp increase in the production of bricks during the year 1994-95; 109000 as against 5000 during 1993-94. However, production of clay has come down by 650 MT and expansion/modernisation programme is under implementation. The audit of its accounts is up to date.

#### Working results

	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	185.69	
B) Other Income	10.50	
C) Increase/decrease in stock of finished goods & Work in process.	- 5.75 -----	190.44
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	20.41	
B) Power, fuel and water charges	1.99	
C) Other expenses	35.49	
D) Personnel expenses	94.59	
E) Interest and bank charges	1.74	
F) Selling & Distribution expenses	---	
G) Administration expenses	8.95	
H) Depreciation	3.17 -----	66.34
Prior period adjustment		- 1.38
Net profit/Loss		22.72

### 3.2.6. Kerala Special Refractories Limited

Date of incorporation 5-11-1985

Present activities: Implementation of special refractory projects.

Summary of performance: The implementation of the special refractory projects has been at standstill for various reasons. The company is taking steps to settle contractual obligations through negotiated settlement and to dispose of assets in consultation with the Government as a prelude to closing down its activities.

#### Working results

	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Other income	0.09	
	-----	0.09
<u>2. Expenditure</u>		
A) Other expenses	1.77	
B) Personnel expenses	0.82	
C) Depreciation	0.13	
	-----	2.72
Net expenditure		2.63



### 3.2.7. The Kerala Minerals and Metals Limited

Date of incorporation 16-2-1972

Present activities: Manufacturing titanium dioxide and mining of minerals.

Summary of performance: The company has registered impressive performance during 1994-95. The gross income has gone up to Rs. 163.85 crores (Rs.124.38 crores in 1993-94) and the net profit has more than doubled to Rs. 42.16 crores (Rs. 20.14 crores during the previous year). The year also saw the company achieving record production of 18042 MT of pigment, at a capacity utilisation of 82%. The mineral separation unit also could improve its performance during the year. The audit of accounts of the company is up to date.

<u>Working Results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	15462.54	
B) Other Income	48.23	
C) Increase/decrease in stock of finished goods & Work in process.	874.52	
	-----	16385.29
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	1454.01	
B) Power, fuel and water charges	3089.21	
C) Other expenses	2023.64	
D) Personnel expenses	1297.47	
E) Interest and bank charges	1223.70	
F) Selling & Distribution expenses	173.74	
G) Excise duty	2557.99	
H) Depreciation	197.35	
	-----	12017.11
Net profit/Loss		4215.94

### 3.2.8. Kerala State Detergents & Chemicals Limited

Date of incorporation

10-6-1986

Present Activities: Manufacturing and Marketing of Detergent Products

Summary of Performance: The company has not been functioning properly from 1992 and, therefore, no data regarding its working is available. The company had applied to BIFR with a rehabilitation package which has since been accepted by the BIFR. The company is expected to resume normal activities soon.

### 3.2.9. Kerala State Drugs & Pharmaceuticals Ltd.:

Date of incorporation: 23-12-1971

Present Activities: Manufacture of Medicinal formulations and Vitamin A Bulk

Summary of Performance: The company could not perform well during 1994-95 also. The income from sales has come down to Rs. 956.20 lakhs as compared to Rs. 1897.12 lakhs during 1993-94. The operating losses for the year stand at Rs. 480.19 lakhs as against Rs. 299.58 lakhs during the previous year. It is reported that interest amounting to Rs. 1722.62 lakhs (on long term loans) has been written off as part of financial restructuring to revive the unit. However, the networth is still negative and working capital position is also not that encouraging. The audit of accounts of the company is complete unto 1991-92 only.

<u>Working results:</u>	<u>(Rs. In lakhs)</u>	
1. <u>Income</u>		
A) Sales/Service charges	956.20	
B) Other Income	0.94	
C) Increase/decrease in stock of finished goods & Work in process	18.19	
D) Interest written back	1722.62 *	
	-----	2697.95
2. <u>Expenditure</u>		
A) Raw material, chemicals etc. consumed	601.15	
B) Power, fuel and water charges	29.16	
C) Other expenses	97.33	
D) Personnel expenses	253.12	
E) Interest and bank charges	388.00	
F) Selling & Distribution expenses	16.96	
G) Excise duty	4.22	
H) Administrative expenses	37.38	
I) Depreciation	28.20	
	-----	1455.52
Net profit/Loss		- 480.19

\* Interest written back not considered.

### 3.2.10. Kerala Soaps & Oils Limited

Date of incorporation

1-11-1963

Production range:

- 1) Various types of toilet soaps
- 2) Laundry soap
- 3) Shark Liver oil products

Summary of performance:

This company was defunct from the year 1992 as it was announced for disinvestment. Hence no information is available for the review of its performance.

### 3.2.11, Kerala State Salicylates & Chemicals Limited

Date of incorporation

15-11-1994

Activities:

Manufacture and sale of bulk drugs and intermediates, viz. Aspirin IP and Salicylic Acid.

Summary of performance:

It is reported that the company is not functioning since April 1994. The Public Sector Restructuring and Internal Audit Board, in consultation with Kerala State Industrial Enterprises Limited (Holding Company) is preparing a revival package for turn-around of the company. Hence no information is available for the review of its performance.

### 3.2.12. Malabar Cements Limited

Date of incorporation 11-4-1978

Present activities: Manufacture and sale of cement.

Summary of performance: Malabar Cements Limited earned record operating profit during the period 1994-95. (Rs. 13.29 crores as against Rs. 8.43 crores in 1993-94) The gross revenue increased to Rs. 9514.83 lakhs (Rs. 8520.15 lakhs in 1993-94). All the accumulated losses have been wiped off during the year. The company has formulated proposals for a cement grinding unit (Project Cost of Rs. 12 crores) and a ceramic tile unit (Project cost of Rs. 104 crores). Both of which are under the consideration of the Government. The audit of accounts of the company is up to date.

#### Working Results

Rs. In lakhs

##### 1. Income

A) Sales/Service charges	9392.45	
B) Other Income	96.03	
C) Increase/decrease in stock of finished goods & Work in process.	26.35	
	-----	9514.83

##### 2. Expenditure

A) Raw material, chemicals etc. consumed	685.97	
B) Power, fuel and water charges	1863.62	
C) Manufacturing expenses	1616.85	
D) Personnel expenses	724.29	
E) Interest and bank charges	335.52	
F) Selling , Distribution & Admn. expenses	387.22	
G) Excise duty and Sales tax	2258.62	
H) Miscellaneous expenses	10.64	
I) Depreciation	302.26	
	-----	8184.99
Prior period adjustments		-769.19
Net profit/Loss		560.65

### 3.2.13. The Pharmaceutical Corporation (IM) Kerala Limited

Date of incorporation 8-9-1975

Present activities: Manufacture and sale of Ayurvedic medicines

Summary of performance: The Corporation has turned around during the year 1994-95. Its turnover increased to Rs. 540 lakhs (Rs. 384 lakhs during 1993-94) and has resulted in a net profit of Rs. 23 lakhs as against a loss of Rs. 21 lakhs during the year 1993-94. Production of almost all major items have increased. The audit of accounts of the corporation is complete unto 1992-93.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	546.00	
B) Other Income	2.00	
C) Increase/decrease in stock of finished goods & Work in process	- 8.00	
	-----	540.00
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	300.00	
B) Power, fuel and water charges	21.00	
C) Other expenses	25.00	
D) Personnel expenses	96.00	
E) Interest and bank charges	21.00	
F) Selling & Distribution expenses	13.00	
G) Excise duty	2.00	
H) Administrative expenses	19.00	
I) Depreciation	20.00	
	-----	517.00
Net profit/Loss		23.00

### 3.2.14. The Travancore Cements Limited

Date of incorporation 9-10-1946

Present activities: Manufacture and sale of white cement and cement paint.

Summary of performance: The company has performed well during 1994-95. The turnover and profit have increased. The company earned a net profit of Rs. 129 lakhs during the year as against Rs. 113 lakhs in 1993-94. It has declared dividends of 10% for 1994-95 also. The company has plans to diversify into manufacture of grey cement.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	2661.00	
B) Other Income	31.00	
C) Increase/decrease in stock of finished goods & Work in process	-11.00	
	-----	2681.00
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	238.00	
B) Power, fuel and water charges	535.00	
C) Other expenses	609.00	
D) Personnel expenses	349.00	
E) Interest and bank charges	5.00	
F) Selling & Distribution expenses	173.00	
G) Excise duty	511.00	
H) Administrative expenses	80.00	
I) Depreciation	24.00	
	-----	2524.00
Operating profit		157.00
Prior period adjustment		-28.00
Net profit/Loss		129.00



### 3.2.15. The Travancore Cochin Chemicals Limited

Date of incorporation

8-11-1951

Present activities: Manufacture and marketing of caustic soda and chlorine products.

Summary of performance: The company has continued to perform well during 1994-95 also. It has achieved an all time high in production with capacity utilisation going unto 101.66% (97.32% during 1993-94) The sales have gone up and profits have increased to Rs. 1310.91 lakhs as against Rs. 1036.43 lakhs during the previous year. The year also saw the company achieving a merit award from the State Government for energy conservation measures. The company has signed an agreement with Asahi Glass Company Limited, Japan for installation of a 100 TPD caustic soda plant employing the membrane cell technology to raise the installed capacity of caustic soda plant to 260 TPD. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>	
1. <u>Income</u>		
A) Sales/Service charges	2661.00	
B) Other Income	31.00	
C) Increase/decrease in stock of finished goods & Work in process	-11.00	
	-----	2681.00
2. <u>Expenditure</u>		
A) Raw material, chemicals etc. consumed	238.00	
B) Power, fuel and water charges	535.00	
C) Other expenses	609.00	
D) Personnel expenses	349.00	
E) Interest and bank charges	5.00	
F) Selling & Distribution expenses	173.00	
G) Excise duty	511.00	
H) Administrative expenses	80.00	
I) Depreciation	24.00	
	-----	2524.00
Operating profit		157.00
Prior period adjustment		-28.00
Net profit/Loss		129.00

### 3.2.16. Travancore Titanium Products Limited

Date of incorporation

18-12-1946

Present activities: Manufacture of anatase grade titanium di-oxide.

Summary of performance: The company earned a net profit of Rs. 88.86 lakhs during the year 1994-95. However, this is less than the profits earned during the previous year. The company could earn a net profit of Rs. 130.70 lakhs from a gross turnover of Rs. 4174.47 lakhs during 1993-94, while this year the profits have come down even though the gross revenue has gone up to Rs. 5531.07 lakhs. This is due to the fact that the expenses have also gone up considerably, notable ones being the raw material costs and personnel expenses. The company has drawn up new proposals which include enhancing the present capacity of 15000 TPA to 27000 TPA having a product-mix of 16000 TPA of coated rutile grade and 11000 TPA of uncoated anatase grade pigments. The total cost outlay inclusive of waste acid and ferrous sulphate recovery plants, is estimated to be around Rs. 105 crores and these proposals are to be implemented within a period of 31 months after executing the know-how agreement. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	5425.32	
B) Other Income	153.69	
C) Increase/decrease in stock of finished goods & Work in process	-47.94	5531.07
<u>2.. Expenditure</u>		
A) Raw material, chemicals etc. consumed	1766.06	
B) Power, fuel and water charges	866.76	
C) Other expenses	-	
D) Personnel expenses	1466.76	
E) Interest and bank charges	19.68	
F) Selling & Distribution expenses	196.89	
G) Excise duty	-	
H) Administrative expenses	1063.69	
I) Depreciation	61.36	
	-----	5441.20
Net profit/Loss		88.86

### 3.2.17. Trivandrum Rubber Works Limited

Date of incorporation

1-11-1963

Present activities: Manufacture of retreading materials, tyres, tubes, foam goods, retreading tyres, rims, cycles, body building and patch works.

Summary of performance: The company has been able to reduce its losses during the year 1994-95, which is the first year after it was taken over by State Farming Corporation of Kerala Limited. Production of different items was resumed and the company could achieve a turnover of Rs.254.81 lakhs. The loss for the year stand at Rs. 62.47 lakhs, while the accumulated losses have risen to Rs. 2070.68 lakhs. The audit of accounts of the company is complete unto 1987-88 only.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<b>1. Income</b>		
A) Sales/Service charges	220.75	
B) Other Income	-	
C) Increase/decrease in stock of finished goods & Work in process	34.06	
	-----	254.81
<b>2. Expenditure</b>		
A) Raw material, chemicals etc. consumed	188.13	
B) Power, fuel and water charges	11.22	
C) Other expenses	4.88	
D) Personnel expenses	78.42	
E) Interest and bank charges	-	
F) Selling & Distribution expenses	5.68	
G) Excise duty	17.06	
H) Administrative expenses	8.29	
I) Depreciation	3.60	
	-----	317.28
Net profit/Loss		-62.47

### 3.2.18. Kerala State Mineral Development Corporation Limited

Date of incorporation

24-6-1992

Present activities:

Exploration/exploiting deposits of granite, china clay, lignite, gem stones, bauxite silica sand and gold in the State.

Summary of performance:

The corporation is yet to start commercial activities. It has nobody in its rolls on a permanent basis. It is reported that efforts are on development of lignite and china clay deposits in the State. A detailed project report on exploitation of lignite and china clay deposits at Madayi in Kannur District has been prepared. Action has been initiated for environmental impact assessment in connection with the implementation of the project. The review of performance of the company is out of question as it has not started any activity yet.

### 3.2.19. Kerala Electrical & Allied Engg. Co. Ltd.

Date of incorporation

5-6-1964

Present activities: Manufacture of distribution transformers, gates and hoists, cast iron specials, alternators for train lighting, DG set and alternators' electrical wiring and accessories.

Summary of performance: The profitability of the operations further suffered during the year 1994-95. Even though the turnover has increased, the operating losses have further risen to Rs.762.75 lakhs. The net losses for the year stand at Rs. 2779.85 lakhs. It is stated that the cost of production has gone up due to steep rise in raw material prices, hike in contract production charges and increase in wages. However, the selling price could not be increased due to competitive market conditions. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	5710.97	
B) Other Income	82.52	
C) Increase/decrease in stock of finished goods & Work in process	5.69	5799.18
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	3229.34	
B) Power, fuel and water charges	61.77	
C) Other expenses	605.64	
D) Personnel expenses	-	
E) Interest and bank charges	823.16	
F) Selling & Distribution expenses	159.33	
G) Excise duty	507.47	
H) Administrative expenses	1011.23	
I) Depreciation	163.99	
	-----	6561.93
Operating profit/loss		-762.75
Prior period adjustment		-2017.10
Net profit/Loss		-2779.85

### 3.2. 20. The Metropolitan Engg. Co.Ltd.

Date of incorporation

25-1-1945

Present activities: Manufacturing of 11 KV to 220 KV isolators, CT/PT, transformer repair and services.

Summary of performance: The company has been able to achieve increased turnover of Rs.275.04 lakhs during the year 1994-95, as compared to Rs. 162.81 lakhs during 1993-94. However, the expenditure also increased, especially the cost of raw materials, thus resulting in a loss of Rs. 9.80 lakhs as against Rs. 3.81 lakhs during the previous year. The net worth is negative and the total accumulated losses stand at Rs. 381.31 lakhs as on 31-3-1995. The audit of accounts of the company is complete up to 1991-92 only.

#### Working results

#### Rs. In lakhs

##### 1. Income

A) Sales/Service charges	275.04	
B) Other Income	-	
C) Increase/decrease in stock of finished goods & Work in process	-3.85	
	-----	271.19

##### 2. Expenditure

A) Raw material, chemicals etc. consumed	173.23	
B) Power, fuel and water charges	2.24	
C) Other expenses	9.57	
D) Personnel expenses	46.43	
E) Interest and bank charges	27.43	
F) Selling & Distribution expenses	4.23	
G) Excise duty	-	
H) Administrative expenses	16.57	
I) Depreciation	1.29	
	-----	280.99
Net profit/Loss		-9.80

### 3.2.21. United Electrical Industries Limited

Date of incorporation 3-10-1950

Present activities: Manufacture of KWH meters, motor control gears etc.

Summary of performance: The company has performed better during the year 1994-95 in terms of turnover and profitability. The gross revenue has increased to Rs. 838.23 lakhs (Rs.805.11 lakhs during 1993-94) and the profits have gone up to Rs. 83.05 lakhs as against Rs. 77.22 lakhs in 1993-94. The accumulated losses have been reduced by about half during the year. It is reported that the production capacity of meters is being increased to meet the demand of KSEB. Electronic meter has also been developed. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	836.01	
B) Other Income	16.56	
C) Increase/decrease in stock of finished goods & Work in process	-14.34	
	-----	838.23
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	393.56	
B) Power, fuel and water charges	5.50	
C) Other expenses	-	
D) Personnel expenses	291.07	
E) Interest and bank charges	5.27	
F) Selling & Distribution expenses	8.21	
G) Excise duty	-	
H) Administrative expenses	46.29	
I) Depreciation	5.28	
	-----	755.18
Net profit/Loss		83.05

### 3.2.22. Traco Cable Company Ltd.

Date of incorporation 5-2-1960

Present activities: Manufacture and supply of various kinds of electrical and telephone cables, manufacture and supply of jelly filled telephone cables.

Summary of performance: The company has been able to achieve increased turnover (about 36%) during the year 1994-95. However, the cost of raw materials, chemicals etc have also increased about 47%, thus reduced the profitability. The net profit for the year stand at Rs. 271.70 lakhs as against Rs. 285.58 lakhs during the previous year. The capacity utilisation at Irumpanam unit increased by 22.67% as the company could secure orders from KSEB. 100% capacity utilisation was achieved in Thiruvalla unit during the year. The audit of accounts of the company is complete upto 1993-94.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	6610.00	
B) Other Income	37.71	
C) Increase/decrease in stock of finished goods & Work in process	30.67	6678.38
	-----	
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	4333.97	
B) Power, fuel and water charges	43.42	
C) Other expenses	237.05	
D) Personnel expenses	246.45	
E) Interest and bank charges	789.69	
F) Selling & Distribution expenses	202.61	
G) Excise duty	-	
H) Administrative expenses	135.70	
I) Depreciation	370.53	
	-----	6368.42
Operating profit/Loss		309.96
Prior period adjustment		-38.26
Net profit/Loss		271.70



### 3.2.23. Transformers & Electricals Kerala Ltd.

Date of incorporation 9-12-1963

Present activities: Manufacture of heavy electrical equipment,

Summary of performance: The company has performed well during the year 1994-95. It has earned ISO:9001 certification in 1995. The gross revenue has gone up to Rs. 9865.65 lakhs (Rs.7789.30 lakhs in 1993-94) and the net profits have increased to Rs. 654.60 lakhs from Rs.285.37 lakhs (1993-94). The capacity utilisation of power transformers increased to 94% during the year. The company earned Rs. 9.42 crores during the year from exports. The company has drawn up a replacement cum modernisation scheme costing Rs.19.83 crores. The audit of accounts is complete unto 1993-94.

<u>Working results</u>	<u>Rs. In lakhs</u>	
1. <u>Income</u>		
A) Sales/Service charges	8968.04	
B) Other Income	612.40	
C) Increase/decrease in stock of finished goods & Work in process	285.21 -----	9865.65
2. <u>Expenditure</u>		
A) Raw material, chemicals etc. consumed	6443.41	
B) Power, fuel and water charges	105.75	
C) Other expenses	68.20	
D) Personnel expenses	1321.15	
E) Interest and bank charges	735.63	
F) Selling & Distribution expenses	120.80	
G) Excise duty	-	
H) Administrative expenses	169.92	
I) Depreciation	58.18	
J) Provision for doubtful debts	200.00	
	-----	9223.04
Operating profit/Loss		642.61
Prior period adjustment		11.99
Net profit/Loss		654.60

### 3.2.24. Kerala State Electronics Development Corpn. Ltd.

Date of incorporation 29-9-1972

Present activities: Designing, manufacturing and marketing of various electronic products/systems.

Summary of performance: The performance of the company was dismal during the year 1994-95. The total production from different divisions amounted to only Rs. 2379.12 lakhs as against Rs.6275.61 lakhs during the previous year. As a result sales also decreased drastically to Rs.7261.87 lakhs. The decrease in production and subsequent reduced turnover resulted in an operating loss of Rs. 29.63 crores as against a profit of Rs. 1.48 crores during 1993-94. It is reported that the major set back in turnover is on account of paucity of orders from DOT, while the budget for 1994-95 envisaged a fair share of its orders for its communication and control instrumentation products. The audit of accounts of the company is complete unto 1993-94.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	7261.87	
B) Other Income	726.00	
C) Increase/decrease in stock of finished goods & Work in process	- 208.12	
	-----	7779.75
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	5166.99	
B) Power, fuel and water charges	40.89	
C) Other expenses	831.47	
D) Personnel expenses	1710.30	
E) Interest and bank charges	2534.87	
F) Selling & Distribution expenses	-	
G) Excise duty	334.30	
H) Administrative expenses	-	
I) Depreciation	124.75	
	-----	10743.57
Operating profit/Loss		-2963.82
Prior period adjustment		-201.06
Net profit/Loss		-3164.88

### 3.2.25. Keltron Counters Limited

Date of incorporation 21-7-1964

Present activities: Manufacturing of engineering goods.

Summary of performance: The company has performed badly during 1994-95 also. The production, turnover and profitability has further declined. The capacity utilisation for counters has been a mere 2.1%. The gross revenue came down to Rs. 232.97 lakhs (Rs. 360.06 lakhs during 1993-94) and the net loss has increased to Rs. 135.16 lakhs as against Rs.115.36 lakhs during 1993-94. The net worth and working capital position are negative. It is reported that the company presently has a firm order position. Paucity of funds is stated to be the cause for reduction in production. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>	
1. <u>Income</u>		
A) Sales/Service charges	259.19	
B) Other Income	4.81	
C) Increase/decrease in stock of finished goods & Work in process	- 31.03	
	-----	232.97
2. <u>Expenditure</u>		
A) Raw material, chemicals etc. consumed	67.74	
B) Power, fuel and water charges	1.60	
C) Other expenses	4.70	
D) Personnel expenses	177.14	
E) Interest and bank charges	69.17	
F) Selling & Distribution expenses	3.59	
G) Excise duty	27.55	
H) Administrative expenses	11.94	
I) Depreciation	3.91	
	-----	367.34
Operating profit/Loss		-134.37
Prior period adjustment		- 0.79
Net profit/Loss		-135.16

### 3.2.26. Keltron Electro Ceramics Limited

Date of incorporation 23-4-1974

Present activities: Manufacture of ceramic disk type capacitors, NTC thermistors and transducers/ buzzers/ringers.

Summary of performance: The company which is under the rehabilitation scheme of BIFR has performed well during the year 1994-95. The gross revenue has increased and the profits have gone unto Rs. 67.70 lakhs as against Rs. 52.93 lakhs during 1993-94. The net worth has further improved. The thermistor production and buzzer assembly have stabilised. The company hopes to wipe of all its accumulated losses by the year 1999-2000. The audit of accounts of the company is complete unto 1993-94.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	512.90	
B) Other Income	6.50	
C) Increase/decrease in stock of finished goods & Work in process	- 12.79	
	-----	506.61
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	221.69	
B) Power, fuel and water charges	1.65	
C) Other expenses	2.21	
D) Personnel expenses	71.44	
E) Interest and bank charges	23.72	
F) Selling & Distribution expenses	22.78	
G) Excise duty	83.21	
H) Administrative expenses	6.70	
I) Depreciation	6.82	
	-----	440.22
Operating profit/Loss		66.39
Prior period adjustment		1.31
Net profit/Loss		67.70

### 3.2.27. Keltron Crystals Limited

Date of incorporation

7-10-1974

Present activities: Manufacture and trading of Piezo electric crystals and digital electronics watches.

Summary of performance: The company continued to perform badly during 1994-95 also. The sales have decreased to Rs. 156.29 lakhs as compared to Rs. 187.17 lakhs during the previous year. The net losses have increased to Rs. 85.38 lakhs during the year as against a net loss of Rs. 49.27 lakhs in 1993-94. The net worth has eroded fully and has become negative during the year. Increase of cost of production coupled with presence of imported crystals (at marginal custom duty) in the market has affected the sales of the company. The audit of accounts has completed upto 1993-94.

#### Working results

#### Rs. In lakhs

##### 1. Income

A) Sales/Service charges	156.29	
B) Other Income	2.60	
C) Increase/decrease in stock of finished goods & Work in process	- 8.03	150.86

##### 2. Expenditure

A) Raw material, chemicals etc. consumed	62.11	
B) Power, fuel and water charges	3.77	
C) Other expenses	0.49	
D) Personnel expenses	75.60	
E) Interest and bank charges	42.35	
F) Selling & Distribution expenses	6.94	
G) Excise duty	26.41	
H) Administrative expenses	7.51	
I) Depreciation	12.27	
	-----	237.45
Operating profit/Loss		-86.59
Prior period adjustment		1.21
Net profit/Loss		-85.38

### 3.2.28. Keltron Magnetics Limited

Date of incorporation 1-3-1975

Present activities: Manufacture and selling of servo controlled voltage stabilizer, uninterrupted power supply.

Summary of performance: The company could not better its performance during 1994-95 also. Even though the turnover registered an increase, the profitability has further declined. The net loss has increased to Rs. 25.70 lakhs as against Rs. 23.63 lakhs during 1993-94. The net worth is negative and accumulated loss stand at Rs. 93.34 lakhs as on 31-3-1995. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	35.31	
B) Other Income	5.95	
C) Increase/decrease in stock of finished goods & Work in process	- 5.81	
	-----	35.45
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	6.79	
B) Power, fuel and water charges	0.19	
C) Other expenses	0.33	
D) Personnel expenses	17.41	
E) Interest and bank charges	16.45	
F) Selling & Distribution expenses	2.38	
G) Excise duty	3.28	
H) Administrative expenses	2.41	
I) Depreciation	1.46	
	-----	60.70
Operating profit/Loss		-25.25
Prior period adjustment		- 0.45
Net profit/Loss		- 25.70

### 3.2.29. Keltron Resistors Limited

Date of incorporation

29-4-1975

Present activities: Manufacture and sale of carbon film and metal film resistors.

Summary of performance: The company has improved its performance slightly during the year 1994-95. The production and sales have gone up marginally. The company has earned a net profit of Rs. 18.28 lakhs as against Rs. 12.67 lakhs during the previous year. Rs. 18.28 lakhs worth accumulated losses have been wiped of during the year. The net worth has also improved, even though it is still negative. The audit of accounts of the company is up to date.

#### Working results

#### Rs. In lakhs

##### 1. Income

A) Sales/Service charges	180.92	
B) Other Income	8.63	
C) Increase/decrease in stock of finished goods & Work in process	0.87	190.42

##### 2. Expenditure

A) Raw material, chemicals etc. consumed	60.46	
B) Power, fuel and water charges	3.32	
C) Other expenses	2.84	
D) Personnel expenses	30.03	
E) Interest and bank charges	23.07	
F) Selling & Distribution expenses	17.30	
G) Excise duty	24.36	
H) Administrative expenses	2.35	
I) Depreciation	6.69	
	-----	170.42
Operating profit/Loss		20.00
Prior period adjustment		-1.72
Net profit/Loss		18.28

### 3.2.30. Keltron Power Devices Ltd.

Date of incorporation 28-1-1976

Present activities: Manufacture of power transistors

Summary of performance: The company could not perform during the year 1994-95 also. It is still remains to be sick and all financial indicators show a declining trend. The accumulated losses have gone up to Rs. 21.49 crores as on 31-3-1995. The net worth is negative and further eroding. The company faces severe working capital shortage and the production and subsequent sales have slumped. It is reported that the company has plans to manufacture plastic encapsulated power transistors. The audit of accounts of the company is complete unto 1993-94.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	16.95	
B) Other Income	27.42	
C) Increase/decrease in stock of finished goods & Work in process	-	44.37
	-----	
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	20.77	
B) Power, fuel and water charges	8.87	
C) Other expenses	1.57	
D) Personnel expenses	74.97	
E) Interest and bank charges	241.27	
F) Selling & Distribution expenses	0.86	
G) Excise duty	1.42	
H) Administrative expenses	3.53	
I) Depreciation	3.35	
	-----	356.61
Net profit/Loss		-312.24



### 3.2.31. Keltron Rectifiers Ltd.

Date of incorporation 22-3-1976

Present activities: Manufacture of diodes/rectifiers

Summary of performance: The company in its first year of rehabilitation scheme (BIFR) has not shown signs of improvement. The production has come down and subsequent turnover has also decreased. The operating loss for the year stand at Rs. 111.77 lakhs as against Rs.119.86 lakhs during the previous year. The net worth has further eroded and the accumulated loss as on 31-3-1995 amount to Rs. 12.38 crores. The working capital position has further worsened. The audit of accounts of the company is complete unto 1993-94

<u>Working results</u>	<u>Rs. In.lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	143.63	
B) Other Income	1.51	
C) Increase/decrease in stock of finished goods & Work in process	3.98	
	-----	149.12
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	46.31	
B) Power, fuel and water charges	14.08	
C) Other expenses	6.01	
D) Personnel expenses	65.40	
E) Interest and bank charges	91.34	
F) Selling & Distribution expenses	2.38	
G) Excise duty	24.03	
H) Administrative expenses	7.13	
I) Depreciation	4.21	
	-----	260.89
Operating profit/Loss		-111.77
Prior period adjustment		25.47
Net profit/Loss		-86.30

### 3.2.32. Keltron Component Complex Ltd.

Date of incorporation

8-10-1974

Present activities: Manufacture of aluminium electrolytic capacitors.

Summary of performance: The company could achieve higher production and turnover during the year 1994-95. However, there has been a reduction in the operating profits and it has made a net loss. The operating profit has come down to Rs. 8.43 lakhs from Rs. 35.51 lakhs during 1993-94. The net loss for the year amounts to Rs. 10.03 lakhs. The company has declared dividends for the 9th year in succession, even though it has made loss during the current year. It is reported that the DOE funded project to develop technology for etching of aluminium foil for high voltage capacitors has been completed. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>	
1. <u>Income</u>		
A) Sales/Service charges	2775.14	
B) Other Income	25.36	
C) Increase/decrease in stock of finished goods & Work in process	77.32	
	-----	2877.82
2. <u>Expenditure</u>		
A) Raw material, chemicals etc. consumed	1420.56	
B) Power, fuel and water charges	28.52	
C) Other expenses	8.09	
D) Personnel expenses	240.83	
E) Interest and bank charges	342.97	
F) Selling & Distribution expenses	217.84	
G) Excise duty	466.24	
H) Administrative expenses	43.76	
I) Depreciation	100.58	
	-----	2869.39
Operating profit/Loss		8.43
Prior period adjustment		-18.46
Net profit/Loss		-10.03

### 3.2..33. Sidkel Televisions Ltd.

Date of incorporation

21-3-1984

Present activities: Repair of push button telephones for DOT.

Summary of performance: The company did not have much activity during the year 1994-95. The major activities like assembly of TV sets and Telecom sub assemblies were stopped for want of orders. The company did some repair work of push button telephones for DOT. The employees have not been paid the wages for the last several months. The net loss for the year amounts to Rs.29.47 lakhs as against a net loss of Rs. 3.67 lakhs during 1993-94. The net worth is negative and further eroding. The working capital position is also grave. The accumulated losses as on 31-3-1995 amount to Rs. 200.78 lakhs. The audit of accounts of the company is complete unto 1993-94.

#### Working results

#### Rs. In lakhs

##### 1. Income

A) Sales/Service charges	1.36	
B) Other Income	7.33	
C) Increase/decrease in stock of finished goods & Work in process	0.10	
	-----	8.79

##### 2. Expenditure

A) Raw material, chemicals etc. consumed	1.65	
B) Power, fuel and water charges	0.10	
C) Other expenses	25.52	
D) Personnel expenses	-	
E) Interest and bank charges	6.77	
F) Selling & Distribution expenses	-	
G) Excise duty	-	
H) Administrative expenses	2.14	
I) Depreciation	1.96	
	-----	38.14
Operating profit/Loss		-29.35
Prior period adjustment		- 0.12
Net profit/Loss		-29.47

### 3.2.34. The Metal Industries Ltd.

Date of incorporation

6-3-1928

Present activities: Production and supply of agricultural implements.

Summary of performance: The company could achieve a higher turnover during the year 1994-95. The gross revenue amounts to Rs. 161.38 lakhs as against Rs. 130.87 lakhs during the previous year. However, the expenditure has also shown a similar increase resulting in an operating loss of Rs.2.60 lakhs as against a profit of Rs. 0.35 lakhs during 1993-94. It is reported that the company faces stiff competition from small scale manufacturers as well as large companies like the TATAs. The audit of the accounts of the company is complete unto the current year.

#### Working results

#### Rs. In lakhs

##### 1. Income

A) Sales/Service charges	173.79	
B) Other Income	0.60	
C) Increase/decrease in stock of finished goods & Work in process	-13.21	
	-----	161.18

##### 2. Expenditure

A) Raw material, chemicals etc. consumed	56.75	
B) Power, fuel and water charges	11.29	
C) Other expenses	9.66	
D) Personnel expenses	42.65	
E) Interest and bank charges	5.08	
F) Selling & Distribution expenses	10.47	
G) Excise duty	15.82	
H) Administrative expenses	10.09	
I) Depreciation	1.97	
	-----	163.78
Operating profit/Loss		-2.60
Prior period adjustment		-0.72
Net profit/Loss		-3.32

### 3.2.35. Steel Complex Limited.

Date of incorporation: 12-12-1969

Summary of performance: The company which was declared sick by BIFR, did not have any activity during the year 1994-95. Production activities remained suspended for want of working capital. It is reported that a revival scheme has been approved by BIFR during May 1995. Audit of accounts is stated to be complete unto 1993-94.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	3.29	
B) Other Income	0.32	
C) Increase/decrease in stock of finished goods & Work in process	- 3.52	
	-----	0.09
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	1.14	
B) Power, fuel and water charges	81.00	
C) Other expenses	-	
D) Personnel expenses	125.35	
E) Interest and bank charges	121.57	
F) Selling & Distribution expenses	0.33	
G) Excise duty	0.64	
H) Administrative expenses	9.45	
I) Depreciation	11.71	
	-----	351.19
Operating profit/Loss		-351.10
Prior period adjustment		0.95
Net profit/Loss		-350.15

### 3.2.36. Kerala Agro Machinery Corporation Limited.

Date of incorporation 24-3-1973

Present Activities: Manufacture and sale of power tillers, diesel engines and its accessories and spares.

Summary of Performance: There has been a reduction in production and turn over during the year 1994-95. The short fall in production, it is stated, is due to the efforts on revising the production incentive schemes, negotiations for which took a year during which time the productivity was lower. The operating profits for the year decreased to Rs. 327.82 lakhs as against Rs. 347.79 lakhs during 1993-94. However, the profit after tax was higher at Rs. 177.97 lakhs as against Rs. 148.99 lakhs during the previous year. The company has declared dividend of 12% for this year also. It is reported that commercial production at Palakkad unit has commenced during February 1995. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>
<u>1. Income</u>	
A) Sales/Service charges	2474.34
B) Other Income	231.98
C) Increase/decrease in stock of finished goods & Work in process	- 41.03
	----- 2455.29
<u>2. Expenditure</u>	
A) Raw material, chemicals etc. consumed	1445.57
B) Power, fuel and water charges	15.25
C) Other expenses	40.57
D) Personnel expenses	349.09
E) Interest and bank charges	6.54
F) Selling & Distribution expenses	161.86
G) Excise duty	36.90
H) Administrative expenses	39.96
I) Depreciation	31.73
	----- 2127.47
Operating profit/Loss	327.82
Prior period adjustment	0.15
Net profit/Loss	327.97

### 3.2.37. Steel Industrials Kerala Limited:

Date of Incorporation 3-1-1975

Present Activities: Fabrication of steel structural, generation of ferrous scrap by breaking ships, sophisticated fabrication works, production of cast iron specials, turn key execution of mini/micro hydel projects, marketing of DG sets, pumps etc.

Summary of performance: The performance of the company has been better during 1994-95. The turn over has registered an increase and the losses have come down. The net loss for the year amounts to Rs. 110.12 lakhs as against Rs. 175 lakhs during the previous year. As on 31.3.1995 the company has carried forward losses amounting to Rs. 774.01 lakhs. It is reported that the company could not resume ship breaking activity during 1994-95 also since there is delay in obtaining funds. The company hopes to resume this activity only during 1996-97. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	1799.99	
B) Other Income	155.54	
C) Increase/decrease in stock of finished goods & Work in process	14.00	
	-----	1969.53
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	1266.46	
B) Power, fuel and water charges	18.90	
C) Other expenses	256.15	
D) Personnel expenses	229.22	
E) Interest and bank charges	136.06	
F) Selling & Distribution expenses	22.40	
G) Excise duty	19.49	
H) Administrative expenses	85.62	
I) Depreciation	19.42	
	-----	2053.72
Operating profit/Loss		-84.19
Prior period adjustment		-25.93
Net profit/Loss		-110.12

### 3.2.38. Kerala State Construction Corporation Limited:

Date of incorporation 25-3-1975

Present activities: The corporation is engaged in construction works like construction of bridges and buildings for Government and semi-government organisations.

Summary of Performance: There has been a reduction in the gross of revenue and profitability during the year 1994-95. The revenue decreased to Rs. 1050.58 lakhs (Rs. 1162.80 lakhs during 1993-94) and the profit has come down to Rs. 7.13 lakhs (Rs. 13.87 lakhs during the previous year) . The net worth and working capital position are still negative even though there has been improvement. The audit of account of the company is complete upto 1991-92 only.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	794.31	
B) Other Income	12.85	
C) Increase/decrease in stock of finished goods & Work in process	243.42	
	-----	1050.58
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	577.81	
B) Power, fuel and water charges	-	
C) Other expenses	104.23	
D) Personnel expenses	298.16	
E) Interest and bank charges	22.36	
F) Selling & Distribution expenses	28.14	
G) Excise duty	-	
H) Administrative expenses	-	
I) Depreciation	12.75	
	-----	1043.45
Operating profit/Loss		-
Prior period adjustment		-
Net profit/Loss		7.13



### 3.2.39. Scooters Kerala Limited:

Date of incorporation 15-11-1976

Present activities: Manufacture of iron and steel products

Summary of performance: The company could not improve its performance during 1994-95 also. The production further dropped and its gross revenue is only one half of that during the previous year. The demand for mechanical assemblies for telephone exchanges, the main product of the company, remained poor. A revival/diversification proposal is pending with the government. The net loss for the year amounts to Rs. 72.87 lakhs as against Rs. 49.09 lakhs during 1993-94. The net worth and working capital position are negative. The audit of accounts of the company is complete only upto 1986-87.

<u>Working results</u>	<u>Rs. In lakhs</u>	
1. <u>Income</u>		
A) Sales/Service charges	42.62	
B) Other Income	0.12	
C) Increase/decrease in stock of finished goods & Work in process	-15.23	
	-----	27.51
2. <u>Expenditure</u>		
A) Raw material, chemicals etc. consumed	17.53	
B) Power, fuel and water charges	3.11	
C) Other expenses	6.39	
D) Personnel expenses	39.88	
E) Interest and bank charges	21.18	
F) Selling & Distribution expenses	0.03	
G) Excise duty	2.21	
H) Administrative expenses	4.14	
I) Depreciation	2.32	
	-----	96.79
Operating profit/Loss		-69.28
Prior period adjustment		- 3.59
Net profit/Loss		-72.87

### 3.2.40. Astral Watches Limited:

Date of incorporation 10-2-1978

Present activities: Assembly or wrist watches and manufacture of tape deck mechanism.

Summary of performance: The performance of the company has improved in terms of reduced losses during 1994-95. The gross revenue decreased to Rs. 25.32 lakhs as against Rs. 32.10 lakhs in 1993-94. However, the loss came down to Rs. 8.92 lakhs as compared to Rs. 30.65 lakhs during the previous year. The company had stopped manufacture of tapped deck mechanism during 1993. The only activity now being performed is assembly of watches for HMT. The audit of accounts is complete upto 1990-91 only.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	-	
B) Other Income	25.32	
C) Increase/decrease in stock of finished goods & Work in process	-	
	-----	25.32
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	0.48	
B) Power, fuel and water charges	1.28	
C) Other expenses	-	
D) Personnel expenses	28.46	
E) Interest and bank charges	0.16	
F) Selling & Distribution expenses	-	
G) Excise duty	-	
H) Administrative expenses	1.86	
I) Depreciation	2.00	
	-----	34.24
Operating profit/Loss		-
Prior period adjustment		-
Net profit/Loss		- 8.92

### 3.2.41, Kerala Automobiles Limited:

Date of incorporation 15-3-1978

Present activities: Manufacturing and sale of 3 wheelers and job works.

Summary of performance: Kerala Automobiles Limited has performed well during the year 1994-95. It could produce a total of 4350 vehicles (80.55% capacity utilisation) as against 3244 vehicles during 1993-94; an increase of over 20% in capacity utilisation. The gross revenue for the year is Rs. 1871.06 lakhs (Rs. 1394.15 lakhs in 1993-94) and the company could earn an operating profit of Rs. 46.07 lakhs as against an operating loss of Rs. 14.19 lakhs during the pervious year. However, the net worth is still negative and it has Rs. 1529.10 lakhs as accumulated losses to be wiped off. The company has plans to manufacture 4 stroke petrol engines and develop an alternate source for diesel engines. The audit of accounts is complete upto 1993-94.

<u>Working results</u>	<u>Rs. In lakhs</u>
1. <u>Income</u>	
A) Sales/Service charges	1815.25
B) Other Income	47.00
C) Increase/decrease in stock of finished goods & Work in process	8.81 ----- 1871.06
2. <u>Expenditure</u>	
A) Raw material, chemicals etc. consumed	1088.90
B) Power, fuel and water charges	26.00
C) Other expenses	36.99
D) Personnel expenses	141.95
E) Interest and bank charges	183.50
F) Selling & Distribution expenses	15.00
G) Excise duty	230.25
H) Administrative expenses	62.40
I) Depreciation	40.00
	----- 1824.99
Operating profit/Loss	46.07
Prior period adjustment	2.00
Net profit/Loss	48.07

### 3.2.42. Steel and Industrial Forgings Limited:

Date of incorporation

1-6-1983

Present Activities: Manufacture of Steel Forgings for automotive and engineering industries.

Summary of performance: During the year 1994-95 the company has achieved a turn around in its working and earned an operating profit for the first time in over a decade of its existence. The year witnessed all round improvement in the operations of the company with capacity utilisation going upto 46% from 33% in the previous year, the production of forgings to 3417 MT from 2439 MT and the turn over at Rs. 1438 lakhs registering an increase of 48% compared to Rs. 970 lakhs in the previous year. The company which is currently under a rehabilitation scheme of BIFR had entered into MOU with Hindustan Aeronautics Limited, Bangalore for development and supply of High Tech forgings required for their air craft engine manufacture. The first batch of supply envisaged under the MOU was also made during the year. The audit of accounts is complete upto the current year.

#### Working results

#### Rs. In lakhs

##### 1. Income

A) Sales/Service charges	1438.00	
B) Other Income	4.00	
C) Increase/decrease in stock of finished goods & Work in process	25.00	
	-----	1467.00

##### 2. Expenditure

A) Raw material, chemicals etc. consumed	744.00	
B) Power, fuel and water charges	121.00	
C) Other expenses	168.00	
D) Personnel expenses	146.00	
E) Interest and bank charges	171.00	
F) Selling & Distribution expenses	27.00	
G) Excise duty	-	
H) Administrative expenses	38.00	
I) Depreciation	43.00	
	-----	1458.00
Operating profit/Loss		9.00
Prior period adjustment		-20.00
Net profit/Loss		-11.00

### 3.2.43. Autokast Limited:

Date of incorporation

21-5-1984

Present activities: Manufacturing and marketing of GI, SG Iron and Steel castings mainly for automobiles and engineering industries including export.

Summary of performance: The company which is under a rehabilitation scheme of BIFR has achieved an increase in turn over and decrease in losses even though, these are not significant. The turnover increased to Rs. 637.46 lakhs as against Rs. 525.46 lakhs during 1993-94 and the net losses have come down to Rs. 1026.71 lakhs, from Rs. 10255.27 lakhs during the previous year. The accumulated losses as on 31.3.1995 amount to Rs. 62.91 crores and the company was under severe financial strain during the year. The audit of accounts of the company is complete upto 1993-94.

#### Working results

#### Rs. In lakhs

##### 1. Income

A) Sales/Service charges	637.46	
B) Other Income	12.34	
C) Increase/decrease in stock of finished goods & Work in process	6.95	----- 656.75

##### 2. Expenditure

A) Raw material, chemicals etc. consumed	321.76	
B) Power, fuel and water charges	102.32	
C) Other expenses	93.32	
D) Personnel expenses	248.31	
E) Interest and bank charges	598.30	
F) Selling & Distribution expenses	17.47	
G) Excise duty	-	
H) Administrative expenses	26.27	
I) Depreciation	257.48	----- 1665.66
Operating profit/Loss		-1008.92
Prior period adjustment		-17.79
Net profit/Loss		-1026.71

### 3.2.44. Kerala Hitech Industries Limited:

Date of incorporation 19-6-1989

Present activities: Manufacture of systems and components for aerospace (ISRO) and Defence (DRDO).

Summary of performance: The company commenced commercial production in April 1994 when it had orders worth Rs. 2063.88 lakhs (value addition). However, production for the year amounted to only Rs. 656.64 lakhs. Total sales were worth Rs. 379.83 lakhs. The short fall in production is attributed to shortage of man power (recruitment was completed only in June 1995) and the fact that the first three major orders, L-40 tankage, Vikas engine and Kaveri Engine were being manufactured for the first time and technology had to be developed. The operating loss for the year stands at Rs. 45.99 lakhs. The audit of accounts of the company is complete upto 1993-94.

<u>Working results</u>	<u>Rs. In lakhs</u>	
1. <u>Income</u>		
A) Sales/Service charges	379.83	
B) Other Income	8.67	
C) Increase/decrease in stock of finished goods & Work in process	276.81	
	-----	665.31
2. <u>Expenditure</u>		
A) Raw material, chemicals etc. consumed	132.98	
B) Power, fuel and water charges	10.16	
C) Other expenses	38.92	
D) Personnel expenses	118.38	
E) Interest and bank charges	518.34	
F) Selling & Distribution expenses	1.21	
G) Excise duty	2.77	
H) Administrative expenses	13.54	
I) Depreciation	275.00	
	-----	1111.30
Operating profit/Loss		-445.99
Prior period adjustment		-0.56
Net profit/Loss		-446.55

### 3.2.45. Kerala Garments Limited:

Date of incorporation

17-7-1974

Present activities: Manufacture and export of ready-made garments of various type.

Summary of performance: There has been a reduction in sales, both domestic and export, during the year 1994-95, even though production has increased. Gross revenue decreased to Rs. 137.62 lakhs as against Rs. 162.25 lakhs during 1993-94. However, the company earned marginally higher profit during the year, Rs. 0.99 lakhs as compared to Rs. 0.11 lakhs in 1993-94. The net worth and working capital position are both negative. The accumulated losses as on 31.3.1995 stand at Rs. 106.99 lakhs. The audit of accounts of the company is complete upto 1991-92 only.

#### Working results

#### Rs. In lakhs

##### 1. Income

A) Sales/Service charges	116.83	
B) Other Income	20.79	
C) Increase/decrease in stock of finished goods & Work in process	-	----- 137.62

##### 2. Expenditure

A) Raw material, chemicals etc. consumed	56.47	
B) Power, fuel and water charges	1.75	
C) Other expenses	0.76	
D) Personnel expenses	56.91	
E) Interest and bank charges	4.72	
F) Selling & Distribution expenses	9.06	
G) Excise duty	-	
H) Administrative expenses	4.20	
I) Depreciation	2.76	
	-----	136.63
Operating profit/Loss		-
Prior period adjustment		-
Net profit/Loss		- 0.99

### 3.2.46. Kerala State Textile Corporation Limited:

Date of incorporation 9-3-1972

Present activities: Manufacture and marketing of cotton blended yarn and testing of quality of cotton, yarn and other textile products.

Summary of performance: The year saw a decline in the profitability of the operations of the company. The capacity utilisation came down to 74.16% as against 80.27 % during the previous year. The reasons for this is attributed to loss of man days due to strike / lockout and want of required man power. The profitability also suffered due to the hike in price of raw material especially cotton. However, it is reported that the machine and labour productivity has increased during the year. The company made a loss of Rs. 40.06 lakhs during the year against a profit of Rs. 176.53 lakhs in 1993-94. The company has drawn up a scheme for the capacity enhancement of Edarikkode Textiles involving a total outlay of Rs. 633 lakhs. The company is also envisaging a modernisation scheme for Malabar Spinning and Weaving Mills involving a total outlay of Rs. 314 lakhs . An Open - End Spinning Mill project envisaging a total outlay of Rs. 500 lakhs is also proposed to be set up at Kozhikode. The audit of account of the company is complete upto 1989-90 only.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	3219.62	
B) Other Income	65.29	
C) Increase/decrease in stock of finished goods & Work in process	54.04	
	-----	3138.95
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	1884.80	
B) Power, fuel and water charges	176.79	
C) Other expenses	169.00	
D) Personnel expenses	535.25	
E) Interest and bank charges	97.54	
F) Selling & Distribution expenses	90.29	
G) Excise duty	179.92	
H) Administrative expenses	103.69	
I) Depreciation	128.26	
	-----	3365.54
Operating profit/Loss		- 26.59
Prior period adjustment		- 13.47
Net profit/Loss		- 40.06



### 3.2.47. Sitaram Textiles Limited:

Date of incorporation

14-2-1975

Present activities: Manufacture of yarn and cloth.

Summary of performance: The company has performed badly in terms of turn over and profitability during the year. The production is reported to be higher at increased capacity utilisation of 83.06% for yarn and 37.25% for cloth. However, the sales have not increased. The net loss for the year has almost doubled to Rs. 163.11 lakhs as compared to Rs. 82.47 lakhs during 1993-94. The working capital position is grave. The accumulated losses as on 31.3.1995 stand at Rs. 1658 lakhs. The audit of accounts of the company is complete upto 1990-91 only.

#### Working results

Rs. In lakhs

#### 1. Income

A) Sales/Service charges	1159.92	
B) Other Income	8.83	
C) Increase/decrease in stock of finished goods & Work in process	40.56	
	-----	1209.31

#### 2. Expenditure

A) Raw material, chemicals etc. consumed	796.22	
B) Power, fuel and water charges	58.03	
C) Other expenses	59.50	
D) Personnel expenses	193.92	
E) Interest and bank charges	134.39	
F) Selling & Distribution expenses	21.29	
G) Excise duty	75.37	
H) Administrative expenses	8.49	
I) Depreciation	25.21	
	-----	1372.42
Operating profit/Loss		-
Prior period adjustment		-
Net profit/Loss		- 163.11

### 3.2.48. Trivandrum Spinning Mills Limited:

Date of incorporation 1-11-1963

Present activities: Manufacturing and marketing of cotton yarn of different counts.

Summary of performance: The company which is under the rehabilitation scheme of BIFR could achieve higher production during the year. However, the sales have come down to Rs. 47.14 lakhs as compared to Rs. 85.12 lakhs in 1993-94. The net worth and working capital position are still negative. The carried forward losses have increased to Rs. 819.89 lakhs as on 31.3.1995. The audit of accounts of the company is up to date.

<u>Working results</u>	<u>Rs. In lakhs</u>	
<u>1. Income</u>		
A) Sales/Service charges	412.77	
B) Other Income	8.39	
C) Increase/decrease in stock of finished goods & Work in process	15.43	
	-----	436.59
<u>2. Expenditure</u>		
A) Raw material, chemicals etc. consumed	282.40	
B) Power, fuel and water charges	13.37	
C) Other expenses	31.50	
D) Personnel expenses	112.18	
E) Interest and bank charges	8.04	
F) Selling & Distribution expenses	12.43	
G) Excise duty	-	
H) Administrative expenses	15.71	
I) Depreciation	5.10	
	-----	483.73
Operating profit/Loss		-
Prior period adjustment		-
Net profit/Loss		- 47.14

## **CHAPTER - 4**

### **METHODOLOGY**

In order to achieve better authenticity, the analysis was conducted at best. Initially a group of 12 public sector enterprises were carefully chosen for the study. Then the selected companies were spread physically across the State they had a good spread in respect to their industrial base and also their general business performance. The different kinds of industries taken into consideration were Ceramics & Refractories, Chemical Industries, Electronics Industries, Engineering Industries and Textiles Industries.

Next, personal visits to this select group of 12 public sector undertakings were made and a face to face interaction and interview with all senior managers and department heads were conducted. They were administered a set of carefully prepared detailed questionnaires. The questionnaires covered the areas, viz. (1) Management Systems and Practices, (2) Human Resource Development, (3) Marketing Management, (4) Production Management, (5) Research and Development, and (6) Finance Management and major aspects of organisational operations and functions.

Questionnaires relating to the first two, viz. Management Systems and Practices and Human Resources Development were general in nature and therefore forwarded to all

managers irrespective of their specialised functions. The next four questionnaires were function specific and therefore forwarded only to the relevant managers.

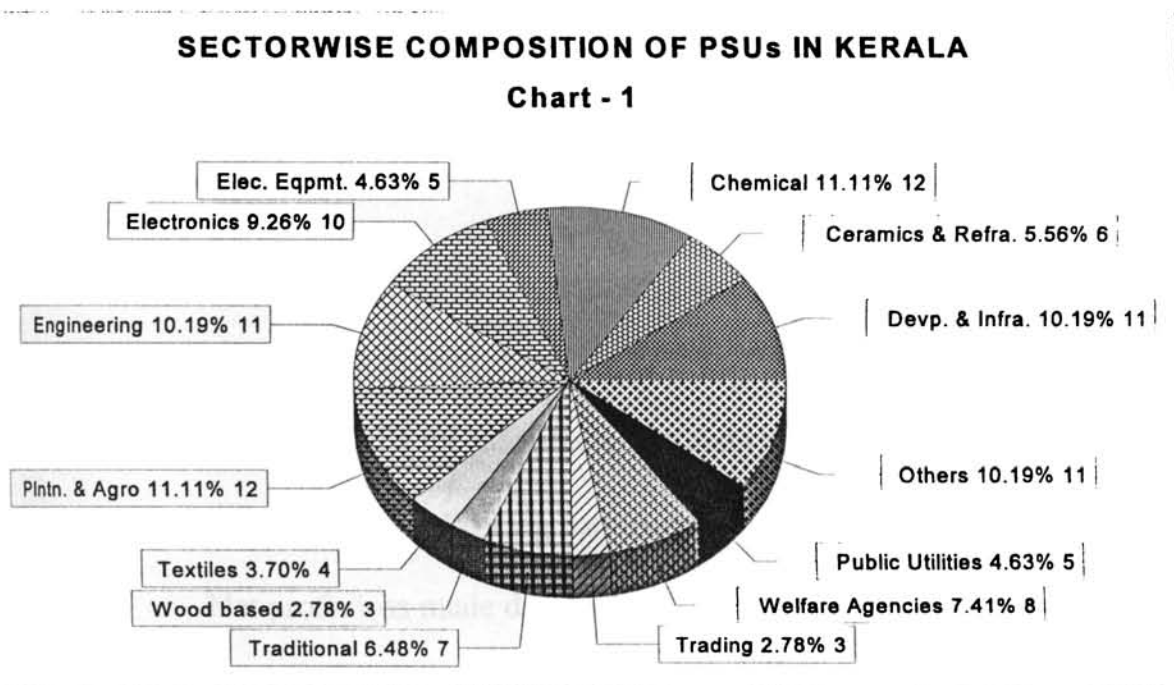
Qualitative as well as quantitative types of questions were included in the questionnaire. The qualitative questions were designed to bring out all personal suggestions and opinions regarding performance enhancement. A qualitative analysis of their statements was then made and generalised conclusions were drawn. A quantitative analysis of the quantitative data collected through from the questionnaires was also made to get a clearer picture almost the performance scenario.

The respondents were convinced that neither their names nor the name of their companies were relevant. The effort was to generate straight forward information from the managers in public sector enterprises.

Data was analysed with a view to establish correlative relationships between different parameters. Criteria for positive performance was fixed. Reasons for poor performance were established. This analysis gave a better picture of the performance of the selected 12 companies over a span of 10 years.

#### 4.1. Sector-wise composition of Public Enterprises in Kerala

The total number of state public enterprises in Kerala is 108. The following pie chart will explain the sector-wise composition of public sector undertakings in Kerala.



Note: The last number in the box indicates the number of units in each sector.

Out of these units, 48 manufacturing units have been selected for this study. They belong to the following product categories:

	Sector Code
1. Ceramics and Refractories	II
2. Chemical Industries	III
3. Electrical Industries	IV
4. Electronics Industries	V
5. Engineering Industries	VI
6. Textiles	VIII

#### **4.2. Steps adopted for sampling**

For the purpose of this study, the manufacturing units belonging to the above categories were classified based on the following parameters:

- Net profit/loss made during the year 1992-93 as an indicator of performance. Figures for 1992-93 have been taken for sampling as the primary survey was done in 1994 and these were the latest published figures available then.
- Fixed assets : Gross block for 1992-93 - This parameter gives the value of fixed assets in the enterprises and indicates the capital investments made for productive use.

- Number of employees - This factor is a macroscopic indicator of social benefits as a result of the enterprises being in existence.

The list of undertakings forming the population for the study, indicators selected, the fixed assets and net profits for 1992-93, 1993-94 and 1994-95 (updated) are given in Table 4.1

TABLE - 4.1

List of Manufacturing Enterprises in State Public Sector

Sl. No.	Category Code	Company	No. of Employees	No. of Years of Existence	Fixed Assets (Gross Block) Rs. In lakhs			Net Profit( Rs. In lakhs)		
					1992-93	1993-94	1994-95	1992-93	1993-94	1994-95
1	II	The Kerala Ceramics Ltd.	500	29	396.12	396.12	396.12	56.62	15.38	(95.37)
2	II	Kerala Spl. Refractories Ltd.	6	7	15.08	14.06	14.06	(3.30)	(2.30)	(2.63)
3	II	Kerala Constuc. Components Ltd.	150	36	21.81	21.81	21.81	9.11	5.37	0.09
4	II	Chalakuudi Refractories Ltd.	120	24	116.00	**	**	(57.53)	**	**
5	II	Kerala Clays & Ceramics Pro. Ltd.	487	8	30.71	31.63	55.60	8.76	9.17	22.72
6	II	Kerala Premo Pipe Factory Ltd.	239	31	85.57	85.57	**	(30.27)	63.10	**
7	IV	Kerala Elec. & Allied Engg. Co. Ltd.	1492	28	2,208.58	2,255.74	2,284.94	(127.30)	(2,017.10)	2,779.85
8	IV	United Ele. Industries Ltd.	486	42	129.28	129.47	134.40	39.99	87.56	83.05

9	IV	Traco Cable Co. Ltd.	584	33	3,967.39	4,065.97	4,129.12	186.78	285.58	280.70
10	IV	Transformers & Elec. Kerala Ltd.	1687	29	1,828.61	1,862.36	1,922.89	263.34	273.39	654.60
11	IV	The Metropleten Engg. Co. Ltd.	146	48	24.76	24.76	24.95	(5.45)	(3.81)	(9.80)
12	VI	Astral Watches Ltd.	103	15	84.34	84.75	83.77	(20.33)	(30.65)	(8.92)
13	VI	Scooters Kerala Ltd.	96	16	102.02	102.03	90.93	(23.42)	(49.09)	(12.87)
14	VI	Autokast Ltd.	543	8	2,749.68	2,788.74	2,796.58	(942.23)	(1,055.27)	(1,026.71)
15	VI	Kerala State Construction Corpn. Ltd.	299	18	270.08	272.42	275.14	9.84	13.87	7.13
16	VI	K e r a l a Gromachinery Corpn. Ltd.	446	20	364.14	386.25	656.40	344.93	241.99	327.97
17	VI	Steel and Industrial Forging Ltd.	260	9	931.00	935.00	936.00	(216.00)	(295.13)	(11.00)
18	VI	Steel Complex Ltd.	596	23	663.96	663.97	663.96	(543.99)	(400.54)	(130.15)
19	VI	The Metal Industries Ltd.	131	65	31.89	32.99	33.17	(5.15)	0.80	(3.32)
20	VI	Kerala Automobiles Ltd.	364	15	791.67	827.30	851.92	(393.17)	7.71	48.07
21	VI	Kerala Hitech Industries Ltd.	270	3	50.23	110.01	3,894.98	**	**	(446.55)
22	VI	Steel Industrials Kerala Ltd.	428	18	476.02	490.50	517.71	(262.01)	(186.99)	(110.12)
23	V	Kerala State Electronic Develop. Coprn. Ltd.	2481	20	3,084.03	3,232.90	3,319.01	117.50	104.17	(3,154.88)
24	V	Keltron Magnetics ltd.	29	18	50.03	43.57	53.58	(24.25)	(23.63)	(25.70)
25	V	Sidkel Television Ltd.	54	9	25.38	25.36	25.12	(2.04)	(3.67)	(29.47)



26	V	Keltron Crystals Ltd.	127	18	268.98	269.04	269.43	23.62	(49.27)	(85.38)
27	V	Keltron Power Devises Ltd.	150	17	334.70	334.70	334.70	(268.87)	(282.85)	(312.24)
28	V	Keltron Components Complex Ltd.	362	18	2,048.27	2,126.26	2,207.29	8.97	35.51	(10.03)
29	V	Keltron Counters Ltd.	302	28	127.11	127.16	127.16	(167.76)	(115.35)	(135.16)
30	V	Keltron Electro Cynamics Ltd.	100	18	1,123.45	126.78	141.79	21.54	52.93	67.70
31	V	Keltron Resisters Ltd.	49	17	110.10	110.14	115.84	5.16	12.67	18.28
32	V	Keltron Rectifiers Ltd.	97	17	304.85	304.85	309.69	(150.49)	(121.89)	(86.30)
33	III	Kerala State Drugs & Pharmaceuticals Ltd.	532	21	989.33	997.12	999.92	(180.96)	(311.97)	(480.24)
34	III	The Travancore Cochin Chemicals Ltd.	1144	41	3,956.37	4,221.25	4,564.69	1,474.96	1,036.43	1,310.91
35	III	Pharmaceutical Corpn. (IM) Kerala Ltd.	150	17	272.00	271.00	282.00	(28.00)	(21.00)	23.00
36	III	The Travancore Cements Ltd.	579	46	715.00	732.00	767.00	85.00	113.00	129.00
37	III	The Travancore Titanium Products Ltd.	1356	46	2,097.77	2,157.30	4,200.95	705.77	130.70	89.87
38	III	Trivandrum Rubber Works Ltd.	257	29	160.68	160.68	160.68	(153.96)	(95.88)	(62.47)
39	III	Malabar Cements Ltd.	1090	11	6,033.56	6,278.86	6,555.98	813.77	859.73	560.65
40	III	Kerala State Detergents & Chemicals Ltd.	277	6	537.80	**	**	(255.06)	**	**

41	III	Kerala State Salicylates & Chemicals Ltd.	109	8	1,614.35	1,614.35	**	(426.09)	(497.60)	**
42	III	Kerala Minerals & Metals Ltd.	1131	21	10,690.13	10,767.33	10,796.23	(877.29)	203.87	2,421.94
43	III	Kerala Soaps & Oils Ltd.	690	29	**	**	**	**	**	**
44	VIII	Trivandrum Spinning Mills Ltd.	438	29	252.57	252.57	243.59	(91.18)	(20.78)	(47.14)
45	VIII	Sitharam Textiles Ltd.	636	18	565.10	604.99	615.21	(112.36)	(82.47)	(163.14)
46	VIII	Kerala State Textile Corpn. Ltd.	1652	21	1,389.01	1,588.58	1,745.04	13.39	176.53	(40.06)
47	VIII	Kerala Garments Ltd.	317	18	48.58	53.67	54.47	(3.65)	0.11	0.99
48	III	Kerala State Min. Dev. Corpn. Ltd.	**	**	**	**	**	**	**	**

\*Activities not started yet

\*\* Not in operation during the period

Source: Bureau of Public Enterprises: A Review of Public Enterprises in Kerala 1992-93, 1993-94 and 1994-95

### 4.3. Sample Classification

For analysing the various managerial aspects from the selected sample, the units grouped under two categories, viz., (1) those that had made profits and (2) those that had made losses during 1992-93. Out of the 48 undertakings, 18 units had made profits and 29 losses during 1992-93. One unit is yet to take off. The list of these units along with the number of employees, gross fixed assets and net loss for 1992-93 is given in Table 4.2 and 4.3.

TABLE - 4.2

Profit making state manufacturing enterprises during 1992-93

Sl.No	Category Code	Company	No. of Employees	Gross Fixed Assets	Profit (Rs. Lakhs)
1	II	The Kerala Ceramics Ltd.	500	396.12	56.62
2	II	Kerala Construction Components Ltd.	115	21.81	9.11
3	II	Kerala Clays & Ceramics Products Ltd.	487	30.71	8.76
4	III	The Travancore Cements Ltd.	579	715.00	85.00
5	III	The Travancore Titanium Products Ltd.	1,356	2,097.77	705.77
6	III	Malabar Cements Ltd.	1,090	6,033.56	813.77
7	III	The Travancore Cochin Chemicals Ltd.	1,144	3,956.37	1,474.96
8	IV	United Electrical Industries Ltd.	486	129.28	39.99
9	IV	Transformers & Electrical (K) Ltd.	1,687	1,828.61	263.34
10	IV	Traco Cable Co. Ltd.	584	3,967.39	186.78
11	V	Keltron Resistors Ltd.	49	110.10	5.16
12	V	Keltron Component Complex Ltd.	362	2,048.27	8.97
13	V	Keltron Crystals Ltd.	127	268.98	23.62
14	V	Kerala State Electronics Develop. Corpn. Ltd.	2,481	3,084.03	117.50
15	V	Keltron Electro Ceramics Ltd.	100	113.45	21.54
16	VI	Kerala Agro Machinery Corpn.	446	364.14	344.93
17	VI	Kerala State Construction Corpn. Ltd.	299	270.08	9.84
18	VIII	Kerala State Textiles Corpn. ltd.	1,652	1,389.01	13.39
		Total	13,544	26,824.68	4,189.05

TABLE -4.3

Loss making state manufacturing enterprises during 1992-93

Sl.No.	Category	Company	No. of Employees	Gross Fixed Assets	Profit (Rs. Lakhs)
1	II	The Chalakudi Refractories Ltd.	120	116.00	(57.53)
2	II	The Kerala Premo Pipe Factory Ltd.	239	85.57	(30.27)
3	II	Kerala Spl. Refractories Ltd.	6	15.08	(3.30)
4	III	Kerala State Drugs & Pharmaceuticals Ltd.	532	989.33	(180.96)
5	III	Pharmaceutical Corpn. (IM) Kerala Ltd.	150	272.00	(28.00)
6	III	Trivandrum Rubber Works Ltd.	257	160.68	(153.96)
7	III	Kerala State Detergents & Chemicals Ltd.	277	537.80	(255.06)
8	III	Kerala Minerals & Metals Ltd.	1,131	10,690.13	(877.29)
9	III	Kerala Soaps & Oils Ltd.	590	353.24	***
10	III	Kerala State Salicylates & Chemicals Ltd.	109	1,614.35	(426.09)
11	IV	Kerala Elec. & Allied Engg. Co. Ltd.	1,492	2,208.58	(127.30)
12	IV	The Metropolitan Engg. Co. Ltd.	146	24.76	(5.45)
13	V	Keltron Power Devices Ltd.	150	334.70	(268.87)
14	V	Keltron Counters Ltd.	302	127.11	(167.76)
15	V	Keltron Rectifiers Ltd.	97	304.85	(150.49)
16	V	Keltron Magnetics Ltd.	29	50.03	(24.25)
17	V	Sidkel Television Ltd.	54	25.38	(2.04)

18	VI	The Metal Industries Ltd.	131	31.89	(5.15)
19	VI	Kerala Automobiles Ltd.	364	791.67	(393.17)
20	VI	Steel Complex Ltd.	596	663.96	(543.99)
21	VI	Kerala Hitech Industries Ltd.	270	50.23	***
22	VI	Autokast Ltd.	543	2,749.68	(942.23)
23	VI	Scooters Kerala Ltd.	96	102.02	(23.42)
24	VI	Steel & Industrial Forgings Ltd.	260	931.00	(216.00)
25	VI	Astral Watches Ltd.	103	84.34	(20.33)
26	VI	Steel Industrials Kerala Ltd.	428	476.02	(262.01)
27	VIII	Sitaram Textiles Ltd.	636	565.10	(112.36)
28	VIII	Trivandrum Spinning Mills Ltd.	438	252.57	(91.18)
29	VIII	Kerala Garments Ltd.	317	48.58	(3.65)
		Total	9,863	24,656.65	(5,372.11)

\*\*\* Not in operation.

The classification of the profit making and loss making units across the sectors are given below in Table 4.4.

**TABLE - 4.4**  
**Sector-wise Profit & Loss making enterprises**

SECTORS	II	III	IV	V	VI	VIII	TOTAL
Profit	3	4	3	5	2	1	18
Loss	3	7	2	5	9	3	29
Total	6	11	5	10	11	4	47

Sector Legend

II Ceramics & Refractories

III Chemical Industries

IV Electrical equipments

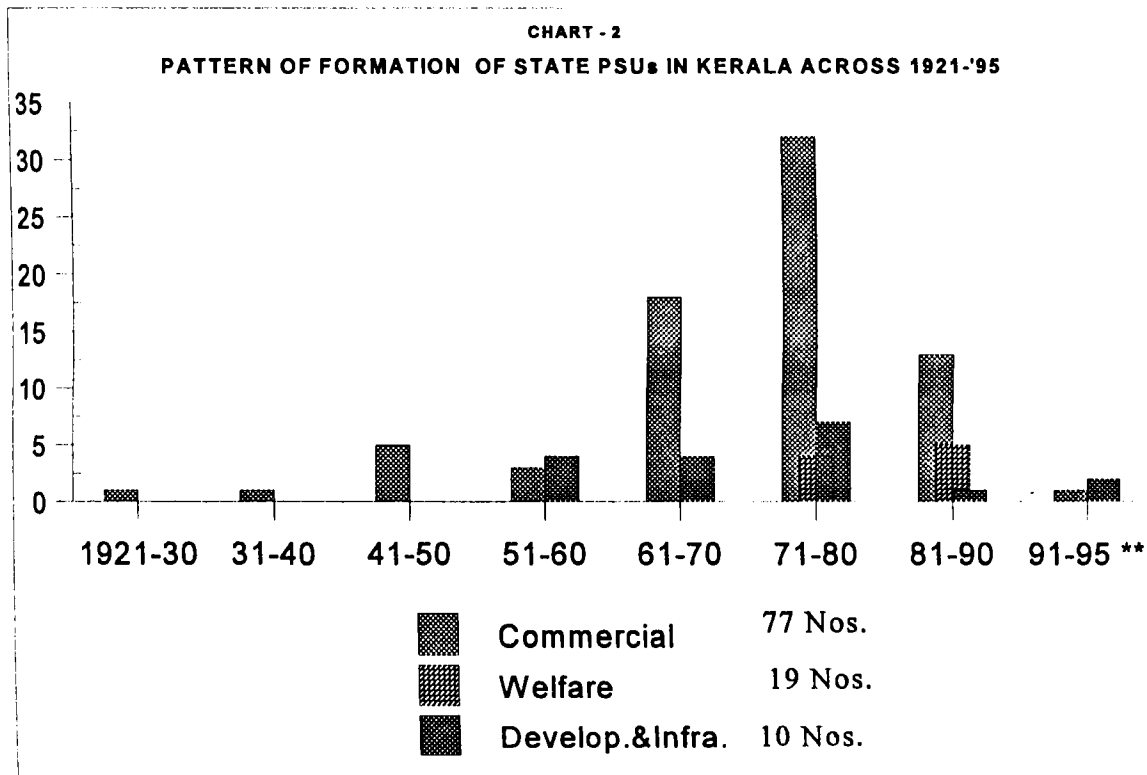
V Electronics

VI Engineering

VII Textiles

It was then attempted to group the above units in terms of their size into small, medium and large categories. Classification based on fixed assets (gross block) and the standard norms for small, medium and large scale industries were not attempted because of the following reasons.

- As can be seen from Table 4.1 and the following pictorial representation, given in Chart 2 the age of the units ranged from 3 to 65 years and the investments in FGA could not be compared.



\*\* Kerala State Mineral Development Corporation Ltd.  
and Kerala Industrial Infrastructure Development  
Corporation were incorporated during 1991-95

Even if this could be compared with reference to a base year, the present classification into small, medium and large industries is based on investments in plant and machinery. The break up of capital investments were not available.

Hence, the profit making and loss making units in Table 4.2 and 4.3 were stratified according to employment particulars and classified as small, medium and large public enterprises. The units with employees upto 150 were classified as small, the ones with employees from 151 to 500 were classified as Medium and those with more than 500 employees were classified as large. This is the same classification followed by the Bureau of Public Enterprises, Government of Kerala.

The categorisation of the 47 units on the stipulated criteria is given in table no.4.5

TABLE - 4.5

Enterprise classification based on employee strength (1992-93)

	Small	Medium	Large	Total
Profit	4	6	8	18
Loss	12	9	6	27
-----				
Total	16	15	14	45
-----				



Data not available for:

- Kerala Soaps & Oils Ltd., as it was not functioning
- Kerala High-tech Industries, as it declared commercial production only in 1994-95.

The following units were then picked from the list for the primary survey.

TABLE - 4.6

Profit making units in the sample

Sl No.	Sector Code	Company name	Gross fixed assets (Rs. In lakhs)	Net Profit 1994-95 (Rs.in lakhs)	No. of employees	Category
1	V	Keltron Resistors Ltd.	115.84	18.28	49	Small
2	IV	United Electrical Industries Ltd.	134.40	83.05	486	Medium
3	VI	Kerala Agro Machinery Corporation Ltd.	656.40	327.97	446	Medium
4	III	Travancore Cements Ltd.	767.00	129.00	579	Large
5	III	Malabar Cements Ltd.	6555.98	560.65	1090	Large
6	III	The Travancore Cochin Chemicals Ltd.	767.00	129.00	579	Large
7	III	Pharmaceutical Corpn.(IM) Kerala Ltd.	282.00	23.00	150	Small

Source: Bureau of Public Enterprises, Government of Kerala, A Review of Public Enterprises in Kerala, 1994-95, p.XXVII

TABLE - 4.7

## Loss making units in the sample

Sl. No.	Sector Code	Company Name	Gross Fixed Assets (Rs.in lakhs)	Net Loss 1994-95 (Rs. In lakhs)	No. of employees	Category
1	IV	Kerala Elec. & Allied Engg. Co.Ltd.	2284.94	2779.85	1492	Large
2	VI	Metal Industries Ltd.	33.17	3.32	131	Small
3	II	The Kerala Ceramics Ltd.	396.12	95.37	500	Medium
4	V	Keltron Component Complex Ltd.	2207.29	10.03	362	Medium
5	VII	Kerala State Textile Corporation Ltd.	1745.04	40.06	1652	Large

Source : Bureau of Public Enterprises, Government of Kerala, A Review of Public Enterprises in Kerala, 1994-95

It may be noted that out of the 12 enterprises in the sample, 7 were making profits and 5 losses during 1994-95. It may also be noted that when the study started in 1990, six of the above enterprises were making profits and six were making losses. Similarly, when the results of 1992-93 were analysed, it was seen that out of 12 units 9 were making profits and only 3 losses. This indicates fluctuating trend in the performance of the enterprises.

#### 4.4. Performance of sample companies selected for the study

The performance of the 12 public sector manufacturing undertakings selected as samples for the study is explained in tables 4.8 to 4.19

TABLE - 4.8

## KELTRON RESISTORS LTD.

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	(27.33)	(28.33)	(28.45)	(14.46)	0.03	(3.67)	-4.56	5.16	12.67	18.28
2. Return on investment %	(-ve)	(-ve)	(-ve)	(-ve)	0.04	-3.81	-4.43	4.52	11.02	15.95
3. Turn-over	23.42	24.64	32.34	60.17	82.35	96.61	112.70	169.54	175.33	180.92
4. Working Capital	17.71	14.21	13.32	27.08	39.23	58.96	69.72	88.63	96.08	96.63
5. Debt-equity Ratio	1.64:1	1.82:1	2.06:1	0.77:1	0.81:1	0.93:1	1.03:1	1.08:1	0.99:1	0.86:1
6. Current Ratio	1.79:1	1.58:1	1.45:1	1.87:1	1.76:1	2.38:1	3.03:1	2.96:1	3.37:1	3.25:1
7. Receivables to Sales (in months)	3.91	3.13	4.10	2.40	4.90	4.90	3.87	4.67	3.90	4.18
8. Stock of finished goods to Sales (in months)	9.47	-	-	5.03	4.30	4.00	3.89	2.35	2.37	2.14
9. Consumption to Sales %	-	-	-	-	34.86	35.22	38.10	37.56	34.35	33.42
10. Capital Invested	178.41	194.36	214.02	247.52	252.99	269.49	283.95	290.64	278.75	260.04
11. Employment	50	50	48	50	50	49	49	49	48	49
12. Production	41.52	41.50	42.12	83.40	75.70	97.10	67.60	75.74	90.57	91.90
13. Expenditure	55.14	57.08	61.12	87.82	89.21	102.96	128.44	167.58	169.91	170.42
14. Capacity Utilisation %	28.00	29.12	30.00	58.76	53.30	68.38	47.60	53.00	64.10	65.00

Source: Compiled from Reviews of Public Enterprises, Bureau of Public Enterprises,  
Government of Kerala, from 1985-86 to 1994-95

TABLE - 4.9

## THE METAL INDUSTRIES LTD.

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	11.56	9.42	4.22	2.76	(0.45)	(0.03)	2.75	(5.50)	0.80	(3.32)
2. Return on investment %	-	52.65	23.50	15.47	(1.11)	(0.07)	5.89	(12.02)	1.78	(7.90)
3. Turn-over	57.67	65.98	64.72	117.26	80.64	97.28	121.73	101.20	125.29	173.79
4. Working Capital	16.76	22.71	26.51	25.25	22.47	25.36	26.80	24.59	28.63	27.61
5. Debt-equity Ratio	1.33:1	1.25:1	1.25:1	1.33:1	2.33:1	1.05:1	1.08:1	1.21:1	1.71:1	1.21:1
6. Current Ratio	1.57:1	1.84:1	1.70:1	1.33:1	1.64:1	1.05:1	1.08:1	1.72:1	1.62:1	1.69:1
7. Receivables to Sales (in months)	3.35	4.40	3.06	3.00	4.31	4.06	2.69	2.20	2.42	2.11
8. Stock of finished goods to Sales (in months)	8.79	1.95	3.71	1.35	1.88	1.71	1.89	2.02	2.01	0.70
9. Consumption to Sales %	-	50.34	60.53	41.51	38.11	42.19	35.18	41.93	38.08	32.68
10. Capital Invested	41.75	40.36	40.36	41.66	59.60	61.40	62.88	63.52	65.00	66.41
11. Employment	127	127	128	132	128	121	123	123	130	131
12. Production	390.00	390.00	375.00	547.00	450.00	347.00	515.00	345.00	450.00	429.00
13. Expenditure	51.48	60.20	72.73	109.80	100.95	111.97	123.60	106.30	130.52	163.78
14. Capacity Utilisation %	-	156.00	150.00	175.00	180.00	139.00	236.00	158.00	206.00	196.00

Source: Ibid

TABLE 4.10

## UNITED ELECTRICAL INDUSTRIES LTD.

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	(55.10)	(81.20)	(88.14)	(90.28)	37.00	—	—	39.99	87.56	83.05
2. Return on investment	(-ve)	(-ve)	(-ve)	(-ve)	(-ve)	(-ve)	53.15	25.72	36.02	25.73
3. Turn-over	248.64	194.22	221.26	343.98	603.03	696.24	802.82	746.02	784.65	836.01
4. Working Capital	64.26	56.38	132.04	176.66	(79.88)	(6.88)	70.69	113.94	207.46	287.19
5. Debt-equity Ratio	0.64:1	0.25:1	0.43:1	0.61:1	0.06:1	0.06:1	0.01:1	0.01:1	0.01:1	—
6. Current Ratio	1.80:1	1.5:1	1.11:1	0.56:1	0.70:1	0.98:1	1.23	1.48:1	1.98:1	2.22:1
7. Receivables to Sales (in months)	1.67	2.59	0.91	1.80	1.30	1.80	2.79	2.11	3.23	3.33
8. Stock of finished goods to Sales (in months)	21.26	—	—	0.60	0.20	0.30	0.27	0.71	0.60	0.37
9. Consumption to Sales %	-	57.00	54.89	54.12	57.70	56.74	59.27	59.37	50.95	47.08
10. Capital Invested	224.37	301.58	344.37	385.39	401.87	403.97	403.76	402.08	402.14	399.33
11. Employment	533	533	527	512	517	531	529	509	498	486
12. Production (000s)	287.61	118.58	127.65	173.65	266.72	284.78	302.66	294.80	267.68	280.21
13. Expenditure	303.32	281.33	310.14	437.42	574.23	646.71	756.13	751.60	727.89	755.18
14. Capacity Utilisation	45.23	47.43	51.06	69.46	106.69	94.93	100.89	98.27	89.23	86.74

Source: Ibid

TABLE 4.11

## KELTRON COMPONENT COMPLEX LTD.

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	114.64	45.87	19.65	82.41	84.72	119.28	75.15	8.97	35.51	(10.03)
2. Return on investment	-	-	12.20	-	9.50	7.83	7.67	6.45	1.69	(0.52)
3. Turn-over	632.29	610.69	811.45	1,249.46	157.37	1,748.71	2,275.04	2,181.68	2,563.12	2,775.14
4. Working Capital	423.19	375.59	316.09	259.56	366.70	442.91	653.33	876.26	996.10	837.14
5. Debt-equity Ratio	3.40:1	02.9:1	1.64:1	1.65:1	1.85:1	0.17	4.59:1	6.57:1	6.91:1	6.27:1
6. Current Ratio	5.39:1	3.40:1	3.24:1	1.58:1	1.55:1	1.39	1.50:1	1.63:1	1.76:1	1.51:1
7. Receivables to Sales (in months)	2.90	3.23	2.68	2.50	3.10	3.40	3.32	3.71	4.30	4.32
8. Stock of finished goods to Sales (in months)	30.33	-	-	2.50	0.80	1.10	1.31	2.63	2.06	2.14
9. Consumption to Sales %	-	52.58	53.12	43.75	44.94	48.28	46.74	57.30	52.12	51.19
10. Capital Invested	709.71	630.48	688.38	692.50	744.27	1,306.60	1,352.21	1,831.43	1,914.01	1,761.45
11. Employment	364	364	360	358	269	373	368	373	364	362
12. Production	450.97	450.97	511.30	530.04	550.07	705.86	750.21	709.23	987.14	1,048.55
13. Expenditure	533.66	616.42	802.30	1,182.62	1,411.83	1,726.72	2,266.36	2,330.24	2,506.30	2,869.39
14. Capacity Utilisation	75.16	75.16	85.22	88.34	76.40	47.06	50.10	47.30	65.80	69.90

Source: Ibid

TABLE - 4.12

## KERALA AGRO MACHINERY CORPORATION LTD

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	23.10	49.33	99.18	129.05	171.23	211.12	256.74	344.92	341.99	327.97
2. Return on investment %	-	-	-	-	48.41	47.68	47.19	50.60	42.15	33.75
3. Turn-over	563.77	597.31	931.33	1,140.39	1,337.01	1,542.92	1,975.70	2,268.10	2,509.51	2,474.34
4. Working Capital	213.52	172.23	149.13	211.95	219.43	311.25	402.49	534.33	578.70	582.01
5. Debt-equity Ratio	2.23:1	1.46:1	0.76:1	0.12:1	0.04:1	-	-	-	-	-
6. Current Ratio	2.35:1	1.90:1	0.96:1	0.74:1	0.58:1	1.75:1	1.86:1	2.01:1	2.01:1	2.03:1
7. Receivables to Sales (in months)	1.10	1.08	1.08	0.97	0.60	0.30	0.41	0.19	0.19	0.17
8. Stock of finished goods to Sales (in months)	53.39	Nil	Nil	Nil	Nil	Nil	0.05	0.03	0.21	0.13
9. Consumption to Sales %	-	57.88	60.02	61.77	62.40	61.76	65.01	64.58	64.71	58.42
10. Capital Invested	378.41	350.64	250.53	181.36	168.20	161.46	161.46	161.46	161.46	161.46
11. Employment	343	343	347	367	399	401	446	475	449	446.00
12. Production	1400	1400	2100	2520	2710	3020	3525	3675	3814	3266
13. Expenditure	213.52	538.52	799.51	1,046.63	1,191.90	1,357.35	1,757.17	1,980.27	2,246.77	2,127.47
14. Capacity Utilisation %	46.66	46.66	70.10	84.00	90.33	100.67	97.92	102.08	105.94	90.72

Source: Ibid

TABLE - 4.13

## PHARMACEUTICAL CORPORATION (IM) KERALA LTD.

Rs in lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	-4.09	3.54	12.65	12.15	3	6	-31	-28	-2	23
2. Return on investment %	-	9.58	41	39.8	2.65	2.7	-14.98	-14.97	-12.07	11.86
3. Turn-over	110.35	121.95	163.73	180.23	231	244	263	324	367	546
4. Working Capital	27.93	20.31	24.24	30.24	58	-8	2	7	18	47
5. Debt-equity Ratio	0.19:1	0.45:1	0.41:1	0.41:1	0.70:1	0.73	0.78	1.5:1	1.34:1	1.16
6. Current Ratio	1.25:1	1.19:1	1.28:1	1.26:1	0.79:1	0.94:1	1.01:1	2.26:1	1.57:1	2.29:1
7. Receivables to Sales (in months)	4.06	5.14	5.9	3.8	2.13	1.62	3.51	2.26	1.57	2.29
8. Stock of finished goods to Sales (in months)	2.59	1.3	1.71	3.83	1.35	1.52	1.55	1.96	1.73	1.19
9. Consumption to Sales %	-	56.1	62.28	60.9	55.84	60.66	71.1	62.35	59.95	54.95
10. Capital Invested	32.98	39.94	42.94	42.94	102	205	236	242	250	242
11. Employment	174	174	172	170	163	163	156	147	130	150
12. Production	264.8969	-	-	206.24	342.92	420.37	507.14	555.613	539.943	689.17
13. Expenditure	106.1	-	-	190.64	223.87	249	343	370	386	517
14. Capacity Utilisation %	-	-	-	40.3	67.88	83.22	100.4	110	107.55	102.1

Source: Ibid



TABLE - 4.14

## THE KERALA CERAMICS LTD

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	(121.96 ) 154.17	- 115.95	- 115.95	-111.76	-42.41	-52.43	-30.37	56.62	15.38	-95.37
2. Return on investment	-	-	-	-	-31.57	-27.66	-11.23	72.95	27.95	-656.82
3. Turn-over	156.74	52.22	66.74	220.81	280.91	347.09	422.79	534.80	531.52	453.03
4. Working Capital	6.54	-74.01	29.57	-206.13	-31.19	25.06	109.75	-38.55	-43.55	-74.06
5. Debt-equity Ratio	4.13:1	4.39:1	0.43:1	1.05:1	0.58:1	0.64:1	0.67:1	0.38:1	0.41:1	0.43:1
6. Current Ratio	0.88:1	0.59:1	1.21:1	0.45:1	0.91:1	1.08:1	1.29:1	0.89:1	0.41:1	0.43:1
7. Receivables to Sales (in months)	2.21	2.29	2.69	0.03	1.07	0.81	1.42	0.86	0.43	0.58
8. Stock of finished goods to Sales (in months)	10.94	-	-	5.40	7.83	5.28	5.50	4.16	6.07	4.27
9. Consumption to Sales %	-	34.46	37.15	26.93	41.33	34.06	38.23	19.91	16.11	16.26
10. Capital Invested	978.73	1028.78	1258.64	1210.02	1465.57	1568.12	1719.36	1429.16	1453.69	1478.79
11. Employment	592	592	575	590	542	554	546	531	508	500
12. Production	134.10	104.00	153.98	478.38	478.00	460.50	537.00	535.00	513.00	387.00
13. Expenditure	264.15	213.09	117.59	366.49	356.86	417.67	503.09	564.53	608.39	541.97
14. Capacity Utilisation	16.16	17.47	25.88	80.40	80.40	77.39	92.25	89.92	86.00	65.00

Source: Ibid

TABLE - 4.15

## TRAVANCORE COCHIN CHEMICALS LTD.

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	225.87	(121.71)	182.43	256.12	367.08	596.39	713.73	1,471.42	1,036.43	1,310.91
2. Return on investment %	-	5.00	13.12	18.29	26.02	32.56	34.56	57.31	37.37	40.42
3. Turn-over	2,328.14	1762.3	2195.36	2663.37	3264.26	4253.16	5000.17	6351.9	6977.93	7687.95
4. Working Capital	940.97	883.68	742.06	576.52	381.63	705.77	945.96	1,372.85	1,564.80	1,274.94
5. Debt-equity Ratio	0.84:1	0.74:1	0.64:1	0.43:1	0.12:1	0.42:1	0.38:1	0.26:1	-	-
6. Current Ratio	3.25	2.90	2.92	2.12	1.42	0.47	1.50	1.51	1.44	1.28
7. Receivables to Sales (in months)	2.87	3.26	2.44	2.07	2.00	2.20	2.35	2.20	2.10	1.79
8. Stock of finished goods to Sales (in months)	3.31	1.32	0.24	0.10	0.20	0.20	0.12	0.45	0.10	0.09
9. Consumption to Sales %	-	13.40	9.32	8.35	8.39	10.20	12.44	12.84	11.69	10.43
10. Capital Invested	1,219.62	1147.51	1084.03	946.3	738.19	934.49	912.17	831.44	1331.44	1331.19
11. Employment	1207	1207	1194	1172	1171	1161	1204	1164	1256	1144
12. Production	51831	27449	30096	33792	36719	43469	43884	49530	51219	53677
13. Expenditure	2169.38	1955.55	1920.94	2434.5	2971.62	3684.25	4304.66	5116.37	58234	6520.23
14. Capacity Utilisation %	46.21	46.21	57.10	64.10	70.00	82.00	84.00	93.80	97.30	101.66

Source: Ibid

TABLE - 4.16

## MALABAR CEMENTS LTD.

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
Net Profit	(522.75)	(516.08)	(27.27)	250.33	(96.65)	15.94	232.23	81.77	859.73	580.65
Return on investment	(-VE)	(-VE)	(-VE)	5.28	0.04	0.34	4.92	16.55	15.75	10.05
Turn-over	2,761.71	3055.17	4337.17	4627.71	3905.2	4366.79	5507.8	7423.12	8329.77	93992.45
Working Capital	(179.60)	-344.53	341.81	629.44	792.48	905.28	1,235.09	1,516.41	2,014.76	2,917.91
Debt-equity Ratio	3.31	3.13	3.08	2.99	1.60	1.53	1.40	1.13	0.98	0.97
Current Ratio	0.85	0.77	1.37	1.76	2.08	2.26	2.62	2.65	2.99	3.30
Receivables to Sales (in months)	0.07	0.21	0.28	0.40	0.20	0.40	0.60	0.32	0.90	0.23
Stock of finished goods to Sales (in months)	-	-	-	0.03	-	-	0.14	0.02	0.07	0.02
Consumption to Sales	-	-	-	7.83	6.30	7.01	6.07	7.00	9.98	7.30
Capital Invested	5,591.19	5753.21	6351.63	6361.77	6427.44	6320.79	6166.32	5476.62	5139.65	4665.53
Employment	751	751	789	752	1041	1078	1065	1062	1066	1090
Production	276	276	383.21	355.99	266.33	255.15	315.8	358.99	384.45	383.83
Expenditure	3319.49	3714.57	4280.24	4571.7	4183.25	4540.27	5239.05	6633.58	7677.36	8184.99
Capacity Utilisation	65.71	65.71	91.24	84.76	63.41	60.75	75.19	85.47	91.54	91.39

Source:

Ibid

TABLE - 4.17

## TRAVANCORE CEMENTS LTD.

Rs in lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	47	-24	-35	-3	47	147	127	85	113	129
2. Return on investment %	(-ve)	(-ve)	(-ve)	(-ve)	13.54	31.82	27.97	18.24	22.69	22.05
3. Turn-over	874	771	740	562	1249	1568	1781	2097	2553	2661
4. Working Capital	43	17	24	61	135	264	454	468	498	585
5. Debt-equity Ratio	0.62	1.3:1	1.1:1	-	-	-	-	-	-	-
6. Current Ratio	1.24	1.05:1	1.1:1	1.3:1	1.66:1	1.93:1	1.69:1	1.58:1	1.57:1	1.78:1
7. Receivables to Sales (in months)	0.15	0.25	0.35	0.8	0.51	0.51	0.44	0.42	0.6	0.62
8. Stock of finished goods to Sales (in months)	2.14	1	1	2	0.29	0.13	0.12	0.21	0.16	0.16
9. Consumption to Sales %	-	6.35	8.64	4.45	5.52	4.34	5.56	5.53	6.46	8.94
10. Capital Invested	50	50	50	50	50	50	50	50	50	50
11. Employment	576	576	576	576	580	580	555	538	516	579
12. Production	-	30600	33000	23400	30108	30901	31394	34029	38261	36719
13. Expenditure	834	832	1209.47	930.41	1224.37	1425.03	1706	2086	2420	2524
14. Capacity Utilisation %	-	156	110	78	100.4	103	105	113.43	127.54	122

Source: Ibid

TABLE 4.18

## KERALA ELECTRICAL AND ALLIED ENGG.CO.LTD.

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	4.69	0.88	-26.29	61.29	40.44	-250.47	-134.24	-459.69	-757.91	-2779.85
2. Return on investment %	-	0.44	-10.14	12.64	1.57	-10.02	-5.55	-18.47	-19.8	-131.3
3. Turn-over	814.06	1167.47	1030.05	1885.33	2994.85	2500.49	3900.63	3768.5	4260.89	5710.97
4. Working Capital	563.49	676.34	755.49	825.01	1430.36	896.24	596.96	630.24	1644.48	392.02
5. Debt-equity Ratio	3.28:1	2.65:1	1.54:1	1.73:1	1.65:1	1.83	1.69:1	1.02:1	1.22:1	0.73:1
6. Current Ratio	3.52:1	4.36:1	5.16:1	2.5:1	2.04:1	1.85:1	2.29:1	1.25:1	1.85:1	1.10:1
7. Receivables to Sales (in months)	3.93	4.05	3.8	3.54	3.3	3.2	3.27	3.88	2.87	3.59
8. Stock of finished goods to Sales (in months)	5.27	3.73	-	1.2	0.7	1.1	1.15	2.7	2.33	1.46
9. Consumption to Sales %	-	46.14	51.66	60.66	55.4	58.01	66.09	65.95	61.44	55.69
10. Capital Invested	682.39	735.98	690.85	1324.75	2313.1	2629.22	2727.57	2909.18	4520.63	4863.18
11. Employment	995	995	1021	960	989	1125	1094	1204	1440	1492
12. Production	259183	131107	87600	284844	555233	292065	293360	215111	163518	260408
13. Expenditure	940.9	1160.03	1082.04	1923.29	2901.54	2895.56	4431.77	4364.68	4581.41	6561.93
14. Capacity Utilisation %	108.02	109.25	73	237.37	462.69	243.39	244.47	179.27	136.27	217

Source: Ibid

TABLE - 4.19

## KERALA STATE TEXTILE CORPORATION LTD.

Rs. In lakhs

	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
1. Net Profit	2.59	-105.52	219.03	-205.71	11.34	68.91	-66.48	13.39	176.53	-40.06
2. Return on investment	-	-	-	-	0.85	4.61	4.36	0.93	11.08	-2.54
3. Turn-over	659.51	589.55	633.4	1116.65	1473.72	1862.39	1991.63	2400.78	2821.6	3319.62
4. Working Capital	618.51	351.48	182.96	196.52	460.55	576.41	619.94	481.61	620.17	555.02
5. Debt-equity Ratio	0.40:1	0.52:1	0.63:1	0.74:1	0.87:1	0.86:1	0.94:1	0.82:1	0.80:1	0.34:1
6. Current Ratio	2.78:1	2.17:1	1.38:1	1.34:1	1.87:1	2.02:1	1.95:1	1.74:1	1.97:1	1.57:1
7. Receivables to Sales (in months)	0.81	0.7	0.6	1.4	1.33	1.9	1.09	1.04	1.16	0.92
8. Stock of finished goods to Sales (in months)	3.95	2.05	1.97	1.33	1.37	4.01	0.91	0.66	0.41	0.49
9. Consumption to Sales %	-	53.3	62.1	68.71	56.73	48.08	56.21	52.34	46.83	58.54
10. Capital Invested	872.05	1102.37	1202.26	1461.62	1340.1	1493.7	1525.05	1432.85	1592.57	1580.11
11. Employment	1574	1574	1538	1617	1618	1648	1586	1605	1601	1652
12. Production	-	3.605	3.572	17.74	19.54	26.08	23.79	25.4	27.06	25.17
13. Expenditure	705.25	668.41	871.64	1362.32	1544.27	1818.64	2132.12	2402.64	2657.67	3365.54
14. Capacity Utilisation	-	58.01	48.19	62.31	63.88	77.45	74.09	86.28	80.27	74.16

Source: Ibid

## CHAPTER - 5

### ANALYSIS AND INFERENCES

From the study of performance evaluation of public sector manufacturing industries, it is found that several problems have been faced by the public sector. Out of the 12 companies under the purview of the study, 7 companies, viz. Keltron Resistors Ltd, United Electrical Industries Ltd., Kerala Agro Machinery Corporation Ltd., The Pharmaceutical Corporation (IM) Kerala Ltd., Travancore Cochin Chemicals Ltd., Malabar Cements Ltd and Travancore Cements Ltd were profit making. One important feature found in the study is that Kerala Agro Machinery Corporation Ltd is making profit for the last 10 years continuously and the performance of this company is highly appreciable. The five companies making loss during the year 1994-95 were the Metal Industries Ltd, Keltron Component Complex Ltd, The Kerala Ceramics Ltd, Kerala Electrical & Allied Engg. Co.Ltd and Kerala State Textile Corporation Ltd. During the data collection and the interview conducted in connection with the research work, the major areas discussed were Management Systems and Practices, Human Resources Development, Marketing, Production, Research & Development and Finance. Analysis of the various management areas with the help of primary data is given below:-

## 5.1. Management Systems and Practices

1) To the question how will you evaluate the management systems and procedures in your company , 36% of the respondents have reported it as good, 59% satisfactory and the rest 5% not very sure about it. This shows that the managers are more or less happy about the existing systems and procedures in their companies.

2) To the question are you satisfied with the systems of recruitment of personnel in your organisation , 74% reported satisfaction, while 26% expressed dissatisfaction. This shows that the present system of recruitment has been well accepted by the majority. Most of the respondents who were un happy with the present system of recruitment of personnel have been hesitant in specifying the reasons for their dissatisfaction. A few of them have reported that the selection is not done by a selection board consisting of highly experienced and qualified persons. This affects quality of work. The PSC takes time in recruiting candidates. In the case of new posts, sanction from Government is necessary and that takes considerable amount of time.

3) To the question as a public sector organisation do you find any special constraint in the recruitment , 64% of the respondents have replied negatively and 36% positively. When asked to explain, most of the respondents who answered positively were reluctant to explain the special constraints in the recruitment, as some of them revealed that Government approvals and the PSC selection process takes considerable time.



4) To the question how is the industrial relations climate in your organisation ,74% of the respondents have reported it as good, 17% as satisfactory. 7% very good, and 2% as fair. No one has reported it as poor. This shows that the IR climate is certainly improving and most of the managers are happy with the present IR climate.

5) To the question do you think that any extraneous factors violates the IR climate , 66% of the respondents have reported that there are no extraneous factor which vitiates the IR climate, while 34% did not agree with this. This shows that there still exists some extraneous factor detrimental to the IR climate. However, the majorities opinion shows that the IR climate is outside external influences in general. All those who have agreed that there are extraneous factors vitiating the IR climate, it has been related to politicians, inter-union rivalry and the feeling of over security by the workers.

6) To the question is the decision making process satisfactory ,87% of the respondents were not happy with the decision making process, while 13% were unhappy about the same. This shows that the present decision making process is not carried out properly. Those who were unhappy about the decision making process have attributed it to the unavailability of information and lack of managerial participation. They reported that there are governmental controls and there are limits regarding purchase etc. According to them, the time taken for decision making is too long especially where governmental approvals are involved. Often, due to poor inter-personal relationship within the top management team, decisions are made without proper discussion or consultation.

7) To the question is the decision-implementation process satisfactory , 79% have reported that the decision implementation process is also not satisfactory. The rest 21% were happy about the decision implementation process. This shows that there are problems too in the actual implementation. This is not a very healthy sign, since operational efficiency is one field which contributes heavily to organisational performance. Those who were unhappy about the decision-implementation process have reported that the inefficiency was due to the existence of an autocratic management styles, which necessarily meant excess concentration of authority and that the commitment and involvement of the different sections during the implementation process is quite low. Other problems stated were financial unavailability and opposition from the trade unions.

8) To the question give your suggestions to improve the same, the respondents have given many suggestions regarding improving the decision implementation process. Delegation of powers and decentralisation have been suggested by many. The criteria for implementation should be clearly spelled out and it should be time-bound. Better participation and co-operation are required and there should be a sincere effort while implementing decisions. Periodical reviews and follow up will effectively improve the implementation process, according to many. Some of the respondents have also said that the company should stop its high dependence on trade union opinions regarding implementation.

9) To the question how is the Chief Executive of your organisation selected and how is the term of the Chief Executive Officer fixed, all the respondents have reported that it was all done by the Government. They were unable to provide details regarding both the questions.

10) To the question what has been the average term of Chief Executive in your organisation, the respondents have given a wide range of tenures; from few months to 8 or 9 years. The average of all the respondents taken together is between two and three years.

11) To the question do you think that this term is sufficient to show positive results, 48% of the respondents have said that this term is alright for showing positive results, while 52% have said that it was not sufficient to show positive results. Thus it may be concluded that a more stable tenure is desired by the managers, so that their organisations may show positive results.

12) To the question if the duration has been too short, do you think it has affected the company's performance adversely, 52% of the respondents have said that the short tenure has affected the company's performance. 48% of the respondents did not feel that the short term had any adverse effects. This shows that a longer duration is desired so as to enable better performance. However, considering the 48% of respondents who were negative about the relationship between short duration and performance, it may be

concluded that a stable tenure of the Chief Executive Officer is not the only criterion for improved performance.

Most of the respondents have not responded to this question. However, those who responded have said that the CEOs needed time to understand the intricacies of the company's business and this was denied to them resulting in poor decision making. Also in order to make long term plans, it needs a more stable tenure for the CEOs.

13) To the question does the company have a corporate plan , 68% of the respondents have said that their companies did not have a corporate plan while 32% responded that they did not have a corporate plan. This shows that a majority of companies did not have long term plans for their organisations. It may be concluded that the need for a corporate plan is not yet felt by a number of State enterprises.

14) To the question do you think that your company is performing as per the corporate plan, 51% of the respondents have said that their companies had a corporate plan, and are confident that their companies performing as per the corporate plan. 49% of the managers however felt that even if their companies had a corporate plan the same was not being implemented and followed. Thus it may be concluded that when it comes to implementation of the corporate plan, much more needs to be done. Almost all the respondents have ignored the question. However, those who have responded have stated that the reason for not performing as per plan was the lack of proper organisation and

lack of organisational and political will. It may be concluded that many of the state enterprises are being run on a day to day basis rather than on a long term well planned basis.

15) To the question do you think that it is necessary for the company to have a corporate plan 84% of the respondents have stated that it is certainly necessary for the company to have a corporate plan. The rest 16% have not responded at all. This shows that the majority of the managers were optimistic about the utility of corporate plans in their organisations. However, 16% of the managers were not aware about what a corporate plan is or what it can do.

16) To the question do you think that the present organisational structure of your company is satisfactory , 62% of the respondents were happy about the present organisational structure, while 38% were not happy about the same. This shows that there still exists nonfunctional or less functional hierarchical structures which in turn suggests that there is ample scope for redefining or restructuring many of the state enterprises. Not many opinions regarding this were forthcoming. Those who have responded have said that the recruitment is not systematically done and hence a properly designed structure could not be maintained. Whenever there is a shortage of manpower, the company is compelled to manage with the existing/available manpower. Also functions like marketing are highly centralised causing operational inefficiency.

17) To the question being an employee of a public sector enterprise, what are the advantages that you enjoy, most of the respondents have said that there are no advantages. Some of the respondents have stated that they have job security and the privilege to serve the Government.

18) To the question, being an employee of a public enterprise, what are the disadvantages that you experience, many of the respondents have ignored the question. However, those who have responded have said that they have not been able to prove themselves in their respective field of work and there is no job satisfaction. Many felt that the Government was ungrateful to their services. Also the payment package is not fair enough. The promotion is also very slow, some felt. Some of them also felt that there is undue and unhealthy interference in their work. From all these it may be concluded that there exist a number of disadvantages that makes the job not attractive enough. Possibly the main reason the managers continue in their jobs is job security and unavailability of other jobs in Kerala.

## **5.2. Human Resources Development**

1) To the question do you think that the procedure of recruitment of personnel affects the performance of the enterprise, 58% of the respondents felt that the procedure of recruitment of personnel did affect the performance of the enterprise. The rest, i.e. 42% however felt that the procedure had no effect on the performance of the enterprise. This

shows that most managers are aware that a proper procedure of recruitment of personnel is essential to ensure positive performance. Considering the 42% of the managers' statement, it is possible that, the style of functioning of the enterprises is such that no matter how the personnel is recruited, the performance is likely to be the same. It may be concluded that the importance of proper recruitment is still mixed and will take some more time for concrete conclusions to be made. Most of the respondents who felt that a proper procedure of recruitment is essential, have answered this question. Almost all of them felt that the current system causes delays in the supply of manpower. Also the right kind of person is not selected. Often times, some of the respondents felt, that corruption in the procedure of recruitment has led to recruitment of unskilled and unqualified work force.

2) To the question does the company follow a system of induction and placement ,72% of the managers have said that a system of induction and placement is followed. While 28% of the managers reported that a system of induction and placement is not followed. This shows that induction and placement is given much importance in the state enterprises.

It was also reported by many of the respondents that the practice helps in bringing the new workers easily into the main stream, since he is familiarised with the company and its operations. Hence the absence of such a system affects the performance of the worker and thereby the performance of the company. Some respondents felt that lack of induction and placement caused dis-satisfaction which in turn resulted in poor quality of work.

3) To the question has the company ever assessed the training needs of the employees on a systematic basis“, 52% of the managers have reported that their company has assessed the training needs systematically. The rest 48% stated that their company did not assess the training needs. This shows that nearly half of the state enterprises still do not have a proper system of training needs assessment. Many of the respondents did not know whether there has been a fulfilment in the training needs. Otherwise a majority of 45% felt that training was imparted to fulfil the needs. 21% of the respondents felt that such a course of action was not taken. This shows that the training scenario is not bright enough and a lot more needs to be done.

4) To the question how many employees are trained in a year , 64% of the managers stated that the number was less than 25, while 19% of the managers said that the number was less than 50. 11% of the managers said that the number of employees trained were more than 100, while another 6% reported it to be nil. This shows that the number of people trained has remained low.

5) To the question what is the average duration of the training programmes , many of the respondents could not answer this question. However, 36% of them stated that it was less than a week, while 12% of the managers stated that the duration was more than 15 days. This shows that the training programmes were mostly very short term and long term programmes are rarely undertaken. It is possible that this lack of training duration is also affecting the performance of the state enterprises.



6) To the question in your view, what importance is given to training by your company 20% of the respondents stated that much importance was given. 80% of the respondents felt that the training imparted was not adequate enough and lack of funds was also stated as one of the important reasons for it.

7) To the question do you think that organised training to employees is a factor in improving the performance of the enterprise, 97% of the respondents positively asserted that organised training is vital for improving the performance while only 3% felt that organised training was not necessary for improving the performance of the enterprise.

8) To the question, do you think that the remuneration package in the company is satisfactory, 56% of the managers were unhappy with the remuneration given by the company while 44% of them seemed to be satisfied about what is paid to them. It may be said that in general, the remuneration is not attractive enough. The defects stated by the respondents were as follows:-

- a) Salary do not commensurate with job entrusted
- b) The Government approval is necessary for pay revision, and approvals are inordinately delayed.
- c) DA is not adequate

- d) Workers get well paid but officers don't. Hence officers are disappointed.
- e) Such low pay causes lower commitment and hence lower company performance
- f) It is not comparable with similar industries

9) To the question what are your suggestions in improving the package, the following suggestions were forthcoming in improving the remuneration package.

- a) The management should have the freedom to fix the salary and wages
- b) The package should be linked to productivity.
- c) The payment should be made after a scientific evaluation and job analysis
- d) Introduction of LTA without delay
- e) The taxes are high, and hence the take home salary is very low. Unless management decides on payment, the employees will not benefit.
- f) Compensation should be based on merit.
- g) It should be made at par with similar industries
- h) Redesign of the entire pay structure
- i) Introduction of perquisites
- j) Constitution of a high powered committee which includes social workers in the formulation of pay structures.

10) To the question what are the policies and procedures for promotions in the company, most of the respondents have stated that the promotion is based on promotion policy agreement. Here seniority cum merit is followed. Seniority is however almost always adhered to. In some of the cases, such a policy do not seem to exist. Up to certain levels promotions are automatic subject to the disciplinary code and there after based on performance appraisal and vacancy.

11) To the question do you think that the present policies and procedures are satisfactory, 57% of the managers were happy with the present policies and procedures . However, 43% of the managers felt that they were not satisfactory. It may be concluded that the policies and procedures are still not popular enough and needs a number of revisions and modifications. The following suggestions were stated by those who were unhappy with the present policies:

- a) Government should revise the policies and procedures.
- b) Promotions should be based on merit
- c) Ample scope for career development for meritorious employees should be there  
(performance based promotions)
- d) Promotions should be only in need based manner
- e) Introduce departmental type test and evaluation system
- f) Professional and experienced bodies should recommend promotions of the performing personnel.

12) To the question is there a proper system of performance appraisal, 72% of the respondents asserted that there is a proper system of performance appraisal. While 28% were doubtful about the existence of such a system. This shows that in many state enterprises there still doesn't exist a proper system of performance appraisal for the purposes of promotion or improvement of pay etc. 83% of the respondents who stated that a proper performance appraisal system exists, felt that it is done on a regular basis while 17% felt that the system was not always made use of.

13) To the question do you think that the appraisal is carried out in an objective manner, 79% of the managers were confident that the performance appraisal was carried out in a routine manner. The rest 21% felt that it was carried out in an objective manner. This shows that the appraisal is not made in an objective manner.

14) To the question do you think that the promotions are largely based on the performance appraisal or by seniority alone, most of the respondents explained that both the criteria are resorted to. At lower levels it is mostly based on seniority while in senior levels, both are considered for promotion purposes.

15) To the question what is the average percentage of absenteeism, 24% of the managers are of the opinion that the average percentage is around 10% which is usually normal. 76% of them admitted that the average percentage of absenteeism was on the higher side and at times, it is more than 20%.

16) To the question do you think that this is high , 67% of the managers felt that the present absenteeism is high, while 33% felt that it was only normal. It can therefore be said that most of the managers would like to see lower levels of absenteeism in their companies.

17) To the question if it is high, can the percentage be brought down , 60% of the respondents were optimistic that the percentage of absenteeism can be brought down, while 40% of them felt that it would not be possible to bring down the absenteeism.

18) To the question state your suggestions to bring down the rate of absenteeism., the following suggestions were made for bringing down the rate of absenteeism:

- a) Employee counseling should be conducted
- b) Attendance based incentives should be introduced
- c) Absenteeism should be an important factor for denying promotion
- d) Regular employees should be well motivated
- e) Extra hands may be appointed whenever necessary
- f) Working conditions should be improved
- g) Better payment package may be offered

19) To the question has the company undertaken an organisational development programme, 80% of the managers admitted that an organisation development programme

was never undertaken. Only 20% of the managers could be positive that an organisation development programme was introduced in their company. This shows that in a vast majority of state enterprises an organisation development programme was never undertaken.

20) To the question do you think that it was useful in improving the organisations' performance, it was reported that where organisation development programme was introduced, it was useful in improving the organisations' performance. It may therefore be said that an organisation development programme could help the state enterprises to perform better.

21) To the question if not do you think an organisational development programme should be launched in your organisation, 86% of the managers have positively responded to this question. Only 14% of them were not sure whether such a programme would benefit their company. It may be concluded that the vast majority of managers would like a proper organisational development programme be introduced in their organisations.

### **5.3. Marketing**

1) To the question what is your opinion about the performance of the marketing function in your organisation, 40% of the respondents have stated that the performance of their

marketing function is good while another 40% has opined it to be satisfactory. 20% of the managers found the performance to be very good.

2) To the question in your view do you think that the lack of marketing performance affects the overall performance of the company , quite interestingly 60% of the managers opined that the lack of marketing function did not affect the overall performance of the company. The rest, i.e. 40% were however felt that it did affect the overall performance. This proves that the marketing area had an identity of its own and functioning well but did not contribute much to the overall performance.

3) To the question are there well planned marketing strategies in the company , 40% of the respondents have said that well planned marketing strategies existed while 60% of them felt that such strategies were absent. It may be concluded that, the markets are not exploited through the formulation of well planned marketing strategies.

4) To the question do you think it is necessary to evolve marketing strategies , only 20% of those who felt that well planned strategies did not exist have said that it is necessary to formulate marketing strategies. This shows that where marketing strategies did not exist, the need for the same was also not felt.

5) To the question does the company have a good set up to service the clients , 90% of the managers were optimistic that they did have a good set up to look after their clients, while

only 10% did not feel that they had a good set up. This shows that the need to service clients is well felt and therefore facilities have been established for the same.

6) To the question do you think that the present level of servicing is satisfactory , 75% of the managers felt that the present level is satisfactory, the rest, i.e. 25% felt that it was not. This shows that the majority of the marketing managers are happy with their standards of servicing. Also, there is scope for improvement.

7) To the question is the company able to meet the delivery schedules largely , again 75% of the marketing managers were positive, that their company was able to meet the delivery schedules. Only 25% of them felt that the delivery schedules were not met. This shows that the marketing departments have been making genuine attempts at maintaining the delivery schedules.

8) To the question is the company having a good distribution network , all the marketing managers have said that their companies have a good distribution network. This shows that if the distribution network is well exploited the turnover of the state enterprises could have a quantum leap in the future.

9) To the question do you have any suggestion to improve the distribution , 55% of the respondents did not have suggestions for improving the distribution, while 45% felt that they had suggestions for improving the same. The usual suggestion was to improve in the



dealer network and to provide the incentives for the dealers. Some of the managers also felt that customer selling can be improved by employing more company sales personnel.

#### **5.4. Production**

1) To the question does the company have proper production planning and control measures 85% of the production managers have stated that a proper production planning and control system did exist in their organisation. The rest, i.e. 15% have said that such a system did not exist.

2) To the question do you think that it is contributing to improved performance , 83% of the respondents in this category have said that it is contributing to improved performance while 17% felt that it did not. It may therefore be said that in 17% of the cases, the planning and control systems need to be effectively used in order to achieve improved performance.

3) To the question is the production planning based on sales forecasting , 71% of the respondents have stated that sales forecasting is the basis of production planning. However, 29% of the production managers felt that sales forecasting has not been done for the purposes of production planning. This shows that sales forecasting is not always done in the state enterprises for production planning.

4) To the question what is the capacity utilisation of the company for the last 3 years, the average per cent age of capacity utilisation were found to be as follows:-

- |    |         |       |
|----|---------|-------|
| 1) | 1992-93 | 55.0% |
| 2) | 1993-94 | 47.2% |
| 3) | 1994-95 | 49.0% |

This shows that though the average capacity utilisation has been very low. It has also been fluctuating quite often. Hence better stabilisation may be resorted to, to achieve consistent performance.

5) To the question what do you think are the technical reasons for not achieving 100% capacity utilisation, some of the respondents did not answer to this question. However, those who responded gave the following reasons:-

- a) power interruption
- b) lack of regular orders
- c) non-availability of spares and raw materials
- d) low voltage
- e) late start
- f) machine breakdown
- g) process problems
- h) shortage of working capital

6) To the question please state specific non-technical reasons, if any, for not achieving full capacity , very few respondents have provided answer to this question. The answers obtained were -

- a) Leave/absenteeism
- b) Strikes and bandhs
- ci) Accumulation of stock
- d) Shortage of orders

7) To the question what is your general comment on the state of materials management in your organisation , 32% of the production managers said that it was satisfactory. 54% of them felt it was good while another 14% felt it was poor. The majority therefore were not happy with the functioning of the materials department in their companies.

8) To the question do you have proper vendor evaluation and vendor rating , 57% of the managers felt that there is no proper vendor evaluation and vendor rating . 43% however felt that it was being practiced. It may therefore be said that a number of the state enterprises still have not started vendor evaluation and rating schemes which are essential to the functioning of the materials department.

9) To the question do you have an inventory control system, 71% of the production managers said that they do not have a proper inventory control system while the rest, i.e. 29% felt that there is some system. It may be concluded that such absence has its own ill

effects in the management of inventory in the state enterprises. However, 57% of the production managers opined that their inventory control system works well to meet the production requirements while 43% of them felt that it didn't. This shows that the inventory control systems need to be refined if it has to play a useful role.

10) To the question what are your suggestions to improve the same, the following suggestions were forthcoming:-

- a) Adhere to the proper inventory control system
- b) Keep the inventory at optimum level
- c) Materials should be planned on monthly basis and not as per the current yearly basis.
- d) Short interval tendering should be avoided.

11) To the question do you always get raw materials as per the standard specifications in terms of quality, 42% of the respondents have said that raw materials obtained are of the required quality. 58% of them opined that poor quality raw materials were often bought. Needless to say, some of the state enterprises have been operating on lower quality raw materials, which is likely to have affected the final product. However, the following reasons were forthcoming to this question:-

- a) Technical incompetency of suppliers
- b) Compulsion to go in for lowest bid

- c) The supplier is sometimes the only supplier in the region and their standards are to be forcibly accepted.
- d) Suppliers' capability is not properly assessed before qualification
- e) Lack of funds; suppliers are not paid in time
- f) Procurement is arranged at the last moment.

12) To the question does the company always go by the lowest quotation , 40% of the production managers have admitted that their companies accept the lowest quotation. However, the majority, i.e. 60% of them denied that the lowest quotation is always accepted.

13) To the question in purchasing, does the company consider quality, delivery schedule, dependability, etc., 86% of the production managers have said that their companies considered several factors while purchasing. Only 14% of them stated that the factors were not considered. This is certainly harmful and could cause much damage to the performance of the companies.

14) To the question what is the percentage of rejections and rework , 57% of the managers here, have said that they had around 20% rejections while 43% of them have stated that it was around 10%. Both the figures are on the higher side and is possibly eating into the company's profits.

15) To the question please state the major reasons for the rejections and rework., the following reasons were stated by the production managers regarding the rejections and rework.

- a) Inferior quality of work
- b) Lower quality of raw materials and components
- c) Obsolete equipment and machinery

16) To the question what is your comment on the performance of the maintenance department in your organisation 57% of the production managers have rated the performance to be satisfactory. 28% rated the maintenance department as good and the rest 15% felt that the performance was poor. This shows that the maintenance department in general have been able to maintain the machinery well to a large extent.

17) To the question do you think that the equipment availability is kept at the optimum level 71% of the production managers felt that the equipment availability was kept at the optimum level, while 29% felt that it was not kept that way. However it may be concluded that in general there is adequate availability of equipment.

18) To the question do you practice the following types of maintenance ,

- a) Breakdown maintenance
- b) Preventive maintenance
- c) Predictive maintenance
- d) Planned maintenance

it was reported that all these types of maintenance were followed in varying degrees. The most practiced method was breakdown maintenance followed by planned maintenance. Next widely practiced was the Preventive maintenance. Predictive maintenance system is not in vogue.

19) To the question is there frequent stoppage of machines due to break down , 40% of the managers felt that there was frequent stoppage of machines due to breakdown while a majority (60%) felt that frequent stoppage did not occur. It may be therefore said that break down is still an usual feature in some of the enterprises resulting in frequent stoppage of machines.

20) To the question what is the approximate time loss due to break downs , 71% of the respondents claimed that the approximate time loss due to breakdowns was less than 10% while 29% felt that it was less than 2%. A time loss of around 10% certainly can affect the production operations resulting in poor turnover.

21) To the question do you have generator sets to meet power failure/power cut, 57% of the production managers have reported that they have generator sets. While the rest 43% reported that no generator set was available to meet power failure. It may therefore be concluded that in a number of state enterprises, the challenge of power failure is not met causing production losses. When asked for the percentage of production that can be maintained by generator set, many of the respondents had no idea as to what extent

generators can cope up with the production. 42% of the respondents said it was well more than 50% while 14% reported that it was less than 50% of the production time.

22) To the question do you think there is surplus/shortage of manpower in your company, 58% of the production managers opined that there was a surplus while another 28% found the manpower position to be just enough. 14% felt that there is a shortage of manpower. Generally it can be inferred that there is surplus manpower in most of the public enterprises.

23) To the question state the approximate of surplus/shortage in different categories many of the respondents could not provide proper answers to this.

## **5.5. Research & Development**

1) To the question does the company have an R&D wing, 60% of the companies reported that they did not have an R&D wing while the rest 40% stated that they had such a wing. This shows that many of the state enterprises still have not undertaken a research and development programme for their products/processes. With regard to the question whether their performance is satisfactory, all the R&D managers who have responded to this question were satisfied with the performance of their R&D wing. However, in a field like R&D, it takes much to finally support and acknowledge the performance of the R&D wing .



2) To the question is the present technology a modern one or dated, the R & D managers have all agreed that the present technology is slightly dated and only limited upgradation has been possible. To the question whether the company have plans for modernisation, the R&D managers felt that their present technology is not fully dated.

3) To the question how does the company plan to fund the modernisation programme ,the R&D managers felt that for the purposes of upgradation, the company had to depend fully on the government for funds, even though the upgradation cost was not substantial.

4) To the question in comparison with similar organisations, how will you rate the performance of your R&D wing, only 25% of the R & D managers could reply to this question. The respondents to this question explained how substantial improvements in production and thereby reduction in production cost was achieved. Research work is also carried out to improve the quality. Development activities have been successfully implemented and are well comparable with the R& D of other organisations.

5) To the question is there a system in your company for evaluation of R & D performance, all the R&D managers stated that a system for evaluation of R&D performance existed in the company. This shows that if the system is routinely employed, proper evaluation of the R&D performance could be carried out.

6) To the question do you think that the company is benefitting from the R&D wing, once again all the R&D managers were optimistic that the R&D wings were able to contribute to the company.

7) To the question how is the R&D wing held accountable for the time and cost incurred by them, the R&D managers reported that there is a continuous interaction between the R&D wing, and the chief executive regarding matters in R&D. This interaction helps in the achievement of R&D goals. Also the expenditure in R&D is relatively quite less.

8) To the question has your R&D brought about any innovation so far, it was reported by the R&D managers that some innovation has been brought about in matters relating to process development and product development. Hence it may be said that the R&D wings has been playing an useful role. The R&D managers reported that the innovations are minor and not substantial. The minor innovations pertains to product development and process upgradation.

9) To the question is there any instance of commercializing any R&D innovation, it was reported that in 60% of the cases, the R&D innovation was successfully commercialised while 40% of the innovations were not put into commercial benefit. The innovations in product upgradation and process upgradation have both led to improvement in the quality of the product as well as the production process. Thus the R&D innovations could be effectively commercialised.

10) To the question if not please state the reasons for not commercializing, the R&D wings which could not successfully commercialise their R&D innovation, refrained from proving an answer to this question. It can only be concluded that the innovation was not practical enough for commercialisation.

## **5.6. Finance**

1) To the question how will you rate the performance of the companys' Finance Department, 67% of the finance managers were quite happy about the same and rated it to be good. 33% of them rated the performance of the finance department to be satisfactory. Hence it can be said that in general, the finance departments are doing well but much needs to be done to improve the performance is several state enterprises.

2) To the question do you feel that capital re-structuring will improve the performance of the company in the long run, only 34% of the managers felt that capital restructuring will be good for performance improvement, while 66% of the managers felt negative about the same. Most of the managers who were optimistic about the role of restructuring made concrete suggestion regarding the restructuring process. They are

- a. Accumulated losses should be written off
- b. Interest dues on government loans should be written off

- c. Intrinsic value of shares should go
- d. Private investments should be welcome into the company so that it can mobilise funds
- e. Loans should be converted to equity
- f. Arrears to government departments should be waived.

3) To the question do you have a system of capital budgeting, 89% of the finance managers reported that they did not have a system of capital budgeting, while only 11% of them admitted that they have a proper system of capital budgeting. On further enquiry, about the method of using capital budgeting in your company, it was informed that in the vast majority of cases, the pay back period was the chief method of capital budgeting. This was followed by the discounted cash flow method and lastly the average return method.

4) To the question do you have large outstanding, 66% of the finance managers claimed that they had no large outstanding. Only 34% of them admitted that the company had large outstanding. This shows that the public enterprises still have a problem of large outstandings. The following reasons were stated by the finance managers, for the large outstanding wherever it existed

- a. Constraints in the market for the product
- b. Credit must be given since the market is highly competitive

c. Government outstanding take a lot of time to clear

d. Public enterprises also do not pay in time

5) To the question is there a proper system for collection of outstanding, all the finance managers claimed that they had a proper system of collection of outstanding. This is a very positive sign and shows that, following up outstanding is taken care of by the state enterprises.

6) To the question does the large outstanding affect the performance of the company, 66% of the finance managers reported that large outstanding did affect the company's performance. The rest 34% admitted that large outstanding did not damage the performance of the company. This shows that in several state enterprises, the existence of large outstanding must be avoided so as to enable better performance. The explanation given is that the outstandings cause poorer resource generation which in turn affect the company's working capital position. The managers have also reported that due to effective follow-up, large outstanding are avoided and hence it does not affect the performance of the company.

7) To the question state your suggestions to improve the collections and reduce the outstanding., most of the managers preferred to ignore the question. However those who answered provided the following suggestions.

- a. Better follow up with the customer
- b. Systematic monitoring of outstanding
- c. Take firm and/or legal action whenever necessary

These suggestions if implemented, undoubtedly can help in the reduction of outstanding in the state enterprises.

8) To the question do you think that the working capital position is satisfactory , 78% of the finance managers were unhappy with the current working capital position. Only 22% of them have stated that the working capital position was satisfactory. It was also explained that the operations resulted in cash loss and hence working capital erosion took place.

9) To the question is the companys' liquidity affected by any other reason ,89% of the managers said that the companys' liquidity was not affected by any other reason. 11% of the finance managers felt that the receivables from the Government did have some impact on the companys' profitability.

10) To the question is the auditing of your accounts up to date , 78% of the finance managers said that the auditing of accounts of the company was up to date. Only 22% of them reported that the accounts were not up to date. It may be concluded that in general the accounts of the state enterprises are maintained.

11) To the question for what period has the audit been in arrears , the average number of years of backlog is around 6. This is on the higher side and unless they are cleared, it could lead to financial mis-management and is already possibly affecting the overall performance.

12) To the question state the reasons for the backlog in auditing of accounts , the following reasons were forthcoming regarding the occurrence for the backlog in auditing of accounts:

- a. Slackness of statutory auditing
- b. Delay in the appointment of statutory auditors by Comptroller & Auditor General of India
- c. Bureaucratic delays at AG's office and Finance Secretary's office

13) To the question do you have a system of social auditing , 89% of the managers have reported that there is no system of social auditing while only 11% of the finance managers claimed that social auditing existed. This shows that the vast majority of the state enterprises are not enthusiastic about social auditing.

14) To the question whether in your opinion there is need for social auditing , 34% of the managers reported that there is a need for social auditing and such an exercise would be worthwhile. 33% of the finance managers said that social auditing was not necessary while another 33% did not have any answer to the question. Quite interestingly none of

the respondents gave suggestions regarding the conducting of a social audit. It is possible that the managers in general are not aware of the methods and means by which social audit may be undertaken.

### **5.7. Criteria for Performance Evaluation**

Existence of debt has an impact on the net profit situation. Improvement in the capital invested has most often resulted in improvement in net profit. More positive change in net profit is, however, seen when the manpower productivity and capital utilisation improved. Increase in the expenditure do not seem to have much effect on the net profits. Similarly even when there has been substantial receivables, it did not have much effect on the net profit. However, stock piling of the finished goods did have an effect on the net profit.

Of the 12 companies, covered under the study, 5 of them have been making losses. The working capital of all these companies have been rather limited. The consumption to sales percentage have been marginally higher in the loss making companies. The capacity utilisation at the same time have also been relatively low. It may also be noted that the products sold by the loss making units were not easily moving in the markets. Naturally the turnover has been comparatively very low. This in turn has affected the net profit scenario. The expenditure in the loss making enterprises have generally been increasing over the years, while it got stabilised in the profit making or less loss making companies.



The tenure of the CEOs don't seem to have substantial impact on the overall performance. However, some positive effect is certainly observed wherever the tenure of the CEO is stable. Likewise the receivables to sales and the stock of finished goods to sales do not have massive effects on the net profit.

- For each of the companies selected for the study, statistical tests were conducted to analyse the effect of various financial parameters on the net profits made over a period of time. The effect of production, working capital, ratio of material and consumption cost to sales have been predominant in most of the cases. This establishes the need for better working capital management, increased capacity utilisation and increase in material productivity.
- In companies like Keltron Component Complex, Metal Industries and United Electrical Industries Ltd., employment levels have had a positive impact on the profitability and this could be attributed to labour oriented production methods and better labour productivity.
- In the case of chemical units, production and material productivity has been the main parameters that determined the profitability.
- To analyse the causal impact of various factors on a macro frame work, a multiple regression was attempted with net profit as the dependent variable and expenditure, ratio of cost of materials to sales, turnover, employment, production and working capital as the independent variables.

## CHAPTER - 6

### RESEARCH FINDINGS

Findings of the study are based on ratio and regression. Data were not available for all the companies. Hence the available data were used for the analysis.

From the study it is seen that the following factors, viz.

- a) Production
- b) Consumption to sales ratio
- c) Working capital
- d) Current ratio
- e) Employment

had the maximum impact on net profit of the units.

For a combination of 4 or 5 of the above variables, the  $R^2$  value (adjusted) ranges from 0.7632 to 0.9838 for individual units. For the total sample units, the adjusted  $R^2$  value obtained was 0.5285, which is considered significant. The dependent variables in this case in the order of ranking are: -

a) Consumption to sales ratio

b) Working capital

c) Expenditure

d) Turnover

e) Production

f) Employment

### **6.1. Result of Multiple regression**

- The  $R^2$  value of 0.5285 indicates that the profitability is explained fairly well by the above mentioned independent variables.
- Significant negative co-efficient for expenditure and ratio of cost of materials consumed to sales establishes their inverse correlation to profitability justifying the arguments from a definitional view point.
- It is significant to note that the ratio of cost of materials consumed to sales has been the largest single factor that has a telling impact on profitability. Review of public enterprises conducted periodically also establishes this observation. As an example, in the textile sector, the cost of cotton has risen to as high as 70% from an acceptable norm of 56-60% (SITRA) affecting the profitability adversely. No corresponding increase is visible in the selling price of yarn.
- It is noteworthy that production, turnover and employment have not been the major factors that determined profitability and its sustenance. On the other hand

working capital availability had a very significant positive impact on profitability.

This stresses the need for a more careful attention on micro level management issues. In State Public Sector Undertakings it is observed that the expenditure has proportionately increased with increase in turnover, in some cases at a faster rate.

To put the units on a stable footing what is required is optimal value addition and not maximum value addition. This calls for expenditure reduction and subsequent lowering of input costs.

The Multiple Regression Analysis was made with respect to the 12 companies. For this analysis “Net Profit” or “Loss” has been taken as dependent variable and independent variables considered for this purpose were:-

- 1) Production (PRDN)
- 2) Consumption to sales (CTS)
- 3) Working Capital (WC)
- 4) Current Ratio (CR)
- 5) Employment (EMPL)
- 6) Expenditure (EXPN)
- 7) Receivables to Sales (RTS)
- 8) Capacity Utilisation (CPUT)
- 9) Stock of Finished Goods to Sales (SFGS)
- 10) Capital Invested (CI)
- 11) Debt Equity Ratio (DER)
- 12) Turnover (TO)

The analysis showed that out of the 12 independent variables, even two variables showed a very high R<sup>2</sup> value (0.9838). The applicable factors to different companies and corresponding adjusted R<sup>2</sup> values are given in the following table no. 6.1.

TABLE - 6.1

Results of Regression Analysis

Sl. No.	Name of Unit	Applicable Performance Parameters						Adjusted R <sup>2</sup> Value
1	TCC	PRDN	WC	EXPN	-	-	-	0.8712
2	KAMCO	PRDN	WC	-	-	-	-	0.9838
3	MCL	PRDN	CR	EMPL	RTS	-	-	0.7632
4	KR	WC	CPUT	-	-	-	-	0.8933
5	TKC	PRDN	CTS	RTS	-	-	-	0.7973
6	KCC	PRDN	CTS	EMPL	EXPN	-	-	0.7830
7	KSTC	PRDN	CTS	SFGS	-	-	-	0.8657
8	MI	EMPL	RTS	CPUT	CI	DER	-	0.8576
9	TCL	CTS	WC	CR	SFGS	-	-	0.9227
10	PH(IM)	CTS	CR	DER	TO	-	-	0.8298
11	KEL	CTS	WC	CR	EMPL	CI	-	0.8477
12	UEI	PRDN	CTS	WC	CR	EMPL	-	0.9640
ALL	UNITS	CTS	WC	EXPN	TO	PRDN	EMPL	0.5285

Source: Worked on the basis of the tables given earlier.

TCC	Travancore Cochin Chemicals Limited
KAMCO	Kerala Agro Machinery Corporation Limited
MCL	Malabar Cements Limited
KR	Keltron Resistors Limited
TKC	The Kerala Ceramics Limited
KCC	Keltron Component Complex
KSTC	Kerala State Textile Corpn. Limited
MI	Metal Industries Limited
TCL	Travancore Cements Limited
PH(IM)	Pharmaceutical Corpn. (Indian Medicine)Ltd
KEL	Kerala Electrical & Allied Engg. Co. Ltd.
UEI	United Electrical Industries Limited

## CHAPTER - 7

### CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions of the study based on the analysis done in previous chapters. Certain recommendations are also made in this chapter with a view to improving the performance of the public enterprises.

#### 7.1. Conclusions:

As stated earlier, the objectives of the study were to examine the various system of performance evaluation existing in the public sector undertakings, identify relevant criteria for objective performance evaluation and make suitable recommendations to improve the performance of the public enterprise.

- 1) The first hypothesis is that the performance of the state public sector manufacturing units in Kerala has not been satisfactory.

From the study and analysis it is found that out of the 47 manufacturing undertakings, only 18 enterprises have made profits during 1992-93. The other 29 have made losses. Total profits made by the profit making undertakings during the same year was Rs. 4189.05 lakhs against Rs. 5372.11 lakhs of total losses made by the loss-making enterprises. Thus the manufacturing sector has incurred a net loss of Rs. 1183.06 lakhs during the period. However, there has been improvement in the subsequent years as can be seen from Table 7.1.

TABLE - 7.1

## Total Loss in the manufacturing sector

Year	1992-93	1993-94	1994-95
Loss - Rs. Lakhs	1183.06	82.46	279.23

Source: Survey data as given earlier

On further analysis, it was found that the redeeming aspect in the entire manufacturing sector, is a few select enterprises in the chemical sector which has brought down the net loss in the sector in 1993-94 and 1994-95. Otherwise the picture would have been very bleak.

The hypothesis that the performance of the state public sector manufacturing units in Kerala has not been satisfactory is thus accepted.

- 2) The second hypothesis of this study is that the performance of these units solely depends on the production and turnover.

The analysis of the data show that the above hypothesis cannot be accepted. Even in cases where production and turnover increased, the performance of the enterprises have not improved. A case in point is the textile sector. Although production and turnover have increased over the years, the profitability has come down drastically. Though the price of raw cotton has increased as high as 70% from an acceptable level of 56 - 60% as per SITRA norms, no corresponding increase was visible in the sales price of yarn.



Therefore, in cases where the acceptable market price is less than the cost, any increased quantity of sales will result in increased losses. This is a serious situation faced by many of the state enterprises. This does not mean that the production and turnover are not important. What is established is that these factors alone cannot improve the performance.

Hence, the second hypothesis that the performance of these units solely depends on production and turnover is rejected.

- 3) The third hypothesis of the study is that the enterprise performance is not related to either the working capital or consumption to sales ratio.

The results of the analysis show that the above hypothesis is not true. On the contrary it is established in the multiple regression analysis that the consumption to sales ratio and working capital have a high correlation to net profit. In the state enterprises, it is observed that the expenditure increases at a faster rate than increase in turn over. This brings to the fore the importance of improving productivity. Increase in production alone is not what is wanted; increase in production should also result in increased productivity. This situation alone can bring down the consumption cost and improved profit. With the liberalisation process moving fast, the manufacturing enterprises have to face stiff competition in the market place.

It is therefore, of paramount importance that the productivity of all resources is maximised for the profitable performance of the enterprise and its long term growth.

The availability of sufficient working capital is another major requirement for profitable performance. It is well known that the working capital management in public enterprises leaves much to be desired. Even funds provided for capital expenditure are being diverted to compensate for cash erosion resulting from below par performance. Out of the 48 enterprises in the manufacturing sector 20 had negative working capital at the end of 1994-95. This leads to higher and higher borrowals and increased interest burden, which in turn reduces the profitability. Many enterprises are in this sort of debt trap, which ultimately makes the undertakings sick.

Therefore, the hypothesis that the enterprise performance is not related to either consumption to sales or working capital cannot be accepted.

- 4) The fourth hypothesis of the study stipulates that it is not possible to evolve a set of factors for performance evaluation at the enterprise level.

The results of the analysis of the 12 selected companies indicate a different situation. The multiple regression analysis (Table 6.1) shows that each of these enterprise can identify a set of variables such as working capital, consumption to sales ratio, production, capacity utilisation, etc. which have got significant correlation to net profit. The adjusted  $R^2$  value varied from 0.7632 to 0.964 (Table 6.1) These are statistically very significant.

Another interesting revelation that is emerging out of the analysis is that it is not the same factors which significantly determine the profitability in the enterprises. For each enterprise, there is a different set of parameters, varying from 3 to 5. This establishes the

fact that each enterprise has a different set of parameters which have to be managed effectively in order to improve the performances. This follows that each enterprises should be managed distinctly taking into account its special characteristics, although certain common approaches may be possible to be adopted.

The hypothesis that it is not possible to evolve a set of factors for performance evaluation at the enterprise level is thus not accepted.

- 5) The fifth hypothesis of the study is that it is not possible to evolve a common set of factors for performance evaluation applicable to all public enterprises in the manufacturing sector.

The multiple regression analysis covering all the selected enterprises showed encouraging results for developing a common strategy for performance evaluation of the enterprises as a whole. The adjusted  $R^2$  value was 0.5285. The value is statistically still significant. The dependant variables in the order of ranking in this case, are (a) Consumption to sales (b) Working Capital (c) Expenditure (d) Turnover (e) Production and (f) Employment. This indicates that a common model can be formulated to assess the performance of the modern manufacturing sector as a whole. This will be useful to the enterprises as well as to the government authorities in formulating policies on performance monitoring and evaluation.

Thus the hypothesis that it is not possible to evolve a common set of factors for performance evaluation applicable to all public enterprises in the manufacturing sector is also not accepted.

## **7.2. Recommendations:**

The public sector undertakings in Kerala has come of age in the sense that it has been able to achieve socio-economic development substantially. The public sector has also been vitally responsible for the collective organising of the workers indirectly. Had there been no public sector, the trade union movement would never have gathered momentum and the workers would still have been disorganised. The positive result of the organised workforce have been the acquisition of rights and substantial increase in wages. This in turn had a remarkable effect on the society. Equality and prosperity was promoted and Kerala is today easily the front runner in terms of social development and social justice in the country.

On the performance front, however, the results have not been satisfactory enough. The massive workforce working with dated plant and machinery in a climate of mismanagement has taken a heavy toll. During the last few years, however, things have changed for the better. The net losses for the year 1994-95 was only Rs. 5.92 crores as compared with Rs. 48.83 crores in 1993-94 and Rs. 109.40 crores in 1992-93. This suggests that the future doesn't necessarily look too bleak. The initiative of the government to reform and restructure the existing State enterprises is on solid grounds. As the state progresses on various fronts, the industrial scenario is also likely to brighten

up, due to the new approach of the government. The trade unions too on its part have shown some change in its approach and is not as militant as before. The public sector, in the future is expected to perform better and generate more revenues for re-investment and thereby stop being a public burden. It will also continue to be a tool in the hands of the government to achieve a variety of socio-economic objectives. The liberalisation programme and opening up of the economy has an effect on the functioning of the state enterprises and thereby caused policy planners to make noticeable changes. The awareness to conserve the scarce resources especially energy and the environment has put more responsibility on the management of the State enterprises. As worker participation improves along with the introduction of modern management practices, the performance of the State enterprises is bound to show good results in the future.

Considering the present working and environment of the State enterprises, the following general suggestions are made:-

- 1) The autonomy of the state enterprises must be clearly outlined and maintained continuously.
- 2) The funds required for capital investment may be made available in time so that the State enterprises may have a fair chance to recover.
- 3) Better financial management and control should be introduced by appointing properly qualified competent professionals.

- 4) Find ways to stop the multiplicity of trade unions. Otherwise the scope for collective bargaining and participative management becomes limited.
- 5) The training of all the personnel in the enterprise be more frequently done so that they may acquire better expertise, skill and the motivation to contribute to the organisation.
- 6) The remuneration package to Chief Executives and other managers should be substantially improved to attract talented persons to state public enterprises.
- 7) The organisational structure may be redone so that there is better efficiency in the operations.
- 8) The Government and the public enterprises should be accountable to the public. Thus they would hold the responsibility in a genuine manner.
- 9) Memorandum of Understanding must be signed in its true spirit. A high powered body competent in matters of performance evaluation should assist in the entire process.
- 10) The tenure of the Chief Executive Officer should be longer to provide stability. Furthermore proper succession planning can go a long way in providing effective leadership.
- 11) The kind of service or product extended by the State enterprises should be made more competent. This essentially means improving of the quality and production processes.
- 12) The capacity utilisation should be stepped up and production levels should remain high. The marketing department should be competent enough to move the product and help increase the turnover.

- 13) Genuine efforts at improving industrial relations should be made. Productivity linked bonus should be encouraged so that there is better man power utilisation while achieving industrial peace. Effective worker education programmes should be conducted routinely.
  
- 14) Most of the public enterprises do not have well planned marketing strategies. These should be developed, especially in the context of severe competition in the wake of liberalisation programme.

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