CHAPTER I

Introduction

The basic character of the Indian industry was influenced by the Mahalanobis model of economic development. The Mahalanobis model underlined the importance of basic industries for the production process. In the initial stages of the industrialisation of India, when the private capital did not flow into infrastructure areas, the government's investments in infrastructure such as basic industries, transport, roads, railways, mining of coal and iron ore, steel mills, heavy machinery etc. were considered essential for providing momentum for industrial progress. The establishment of basic industries by the government was thought essential to evoke a reaction in the development of various spheres of industrial activity. The crucial factor which led to the adoption of Mahalanobis model was the low level of capital-stock formation in the economy. Growth in
income was linked to the expansion of capital-stock and investment by the government was thought essential to expand the capital-stock. In a closed economy, the domestic supply of capital goods influenced the investment pattern and hence the production of capital goods by the public sector became essential. The emphasis was on those capital goods which could lead to the production of other capital goods.

The implementation of Mahalanobis model required centralised control and planning. The industrial policy resolution of 1956 and the second five year plan (1956-61) gave a practical shape to the Mahalanobis model. The 1956 resolution categorised industries under three headings. The first category was the monopoly of the government. In the second category, the industries meant for progressive takeover by the state were enlisted. The third category of industries was left open for the operation of the private sector. As a follow-up to the policy, the second plan placed
emphasis on industrial growth in crucial sectors like oil, steel, coal, power and machine tools. The allocation of resources was done accordingly.

The implementation of the policy resolution of 1956 was planned through various government agencies, such as Director General of Trade and Development (DGTD) and Bureau of Public Enterprises (BPE). These agencies acted as control mechanisms. The broad statements of the policy resolution were,

a) Control of growth and the industrial composition of output and capacity,
b) Control over foreign exchange utilisation,
c) Control of monopoly and restrictive practices in trade and commerce,
d) Control over investments in certain consumption goods industry to encourage small industrial units,
e) Control over the location of the industry.
An example clarifies the method by which the government attempted to realise its policy directions. To control the Machine tool industry which was in the second category (category 'B') of the industrial policy, the government created a machine tools committee to control the capacity of the industrial units and a development council for machine tools to assess the demand and recommend the types to be manufactured in India. In addition, the import licensing committee controlled the clearance of licenses for manufacture, the foreign collaboration committee monitored the foreign tie-ups in technology and the capital issues committee controlled financial investments, these were in addition to the office of the Director General of Trade and development (DGTD) mentioned above.

Due to the creation of multiple agencies of control, the pace of industrial investment was
adversely affected. To quote Tapas Majumdar, "one major drawback of the public sector undertakings in India is that the three levels of decision-making (the investment policy decisions, the capacity utilisation decisions and the pricing policy decisions) are either left simply un-coordinated or at best co-ordinated only partially and haphazardly through a process of fitful trials and errors."¹ Where control over investments hindered modernisation, overall efficiency of the industry was seriously jeopardised. Not only the public enterprises were affected by the control systems but the private sector units as well. The following diagram provides the pattern of interaction between

various government agencies and public sector enterprises.²

Ministerial intervention has often been regarded as a source of dissatisfaction by the public sector managers. The complain that the accountability gets blurred since decisions are influenced by multiple agencies of control. The political and bureaucratic interference remains a major obstacle in the management of the public sector. Bernard Demello explains the adverse effects of bureaucracy on public sector. He says, "the secretarial bureaucracy in the administrative ministry continues to be relied upon by the political authority as the most reliable instrument in the scheme of things. This is the biggest single factor responsible for strangulating professional and technological competence in the public sector. The sengupta committee has sought to impart a measure of operational flexibility to public enterprises within the straitjacket of a framework in which there can be no real autonomy or purposeful accountability to them."
But the entrenched bureaucracy in the administrative ministries has managed to frustrate any move in this direction. This is evident from the decision taken by the government on the recommendations of the committee. The government has not accepted the recommendation that the chief executives of public enterprises should directly assist the minister-in-charge in discharging his responsibility to parliament on their behalf without the intervention of the administrative secretary. The political authority, i.e., the minister in the established setup, actually functions through the bureaucratic machine which exercises the power and prerogative of control and direction on behalf of the political authority. Though the bureaucracy itself is not accountable to anything, the public sector management bodies are obliged to be accountable to the administrative bureaucracy. So long as this position is not radically altered, the concepts of autonomy as well as accountability in the case of public sector enterprises in all areas of commercial, industrial or
technological activity will remain illusory." The Sengupta committee appointed by the government to suggest remedial measures indicated two important directions among various suggestions. They were a) the creation of holding company and b) the memorandum of understanding. The committee suggested that the holding company eliminates direct contact between the unit and the ministry. It should not only operate as recipient of ministry's guidelines but also provide considerable room for operational freedom of management. The memorandum of understanding is a written commitment on part of the unit management with regard to performance in a specific period of time. The government and the management together formulate the criteria of performance and the expected targets of achievement. The management's responsibility lies in achieving those targets. While the suggestion of the

holding company did not find favour with the government, the memorandum of understanding was signed by those industries which volunteered to accept the proposal. The notable point being the absence of a mandatory sanction for all the public sector units to sign the memorandum of understanding. The main drawback of the memorandum of understanding has been its voluntary nature, which evoked response from only successful industries like ONGC, SAIL etc.

While the issue of 'management structure' remained a problematic area, the financial performance of the enterprises posed another challenge. Since the establishment of public sector is closely linked to social objectives, the priority for financial performance became a debatable issue. One point of view suggested that the provision of social benefits involves the sacrifice of profitability and hence the poor financial performance could be justified. A contrary view pointed out that poor financial
performance slowed down the overall growth rate and hence profitability should be given primary importance. Although both the views provide valid arguments, the cause for the poor financial performance should be known to support a particular point view.

The high cost of public enterprises to the public exchequer may be illustrated through a few exemplary quotations. "In the case of Vizag steel, the planning was so uneconomic and the cost overrun so high that, in the opinion of planners themselves this unit will never be viable, will never make any profit for all time to come." Similarly, "In the beginning of the sixth plan, in the units controlled by SAIL, the annual production was nearly 5 million tonnes of salable steel. In the four years of the sixth plan, another Rs. 5000 crores have been invested and still they propose to produce only 5.7 million tonnes. It

indicates the gross under-utilisation of capacity. As a comparison of cost of productions, "China, which has a similar problem of over-population as in our country and in some respects had lower production in 1949, has today achieved a level of 900 million tonnes of coal production at a cost of less than Rs. 50 per manshift and a productivity of 2 tonnes output per manshift (OMS) in underground mines. As against this, we, in India, after nationalization of coal have reached a production of about 180 million tonnes at an average cost of more than Rs. 220 per tonne and our output per manshift is less than 0.5 tonne." With regard to the high costs of public enterprises, V.V. Ramanadham, an eminent thinker on public explains that the development status of the developing countries was so low that the first efforts towards development involved them in

heavy costs which were analogous to overheads of national economic development. The structural disadvantage of these countries can be known when one examines factors like a) manufacturing as percentage of gross domestic product b) energy consumption per capita c) urban population as per cent to total population d) adult literacy. Dr. Ramanadham explains that these factors aggravate the costs of gestation of national economic development. They raise the costs of technology acquisition and absorption, entail inordinate costs of technical and managerial training, occasion expensive arrangements for skills, saddling the countries with expensive foreign collaboration, and cause uneconomical consequences of capital expenditure on projects. According to Dr. Ramanadham, these are really costs of national gestation. In countries where private enterprises heralded industrial development, such costs were borne 1) through bankruptcies of some enterprises, 2) by virtual enjoyment of monopoly power
by enterprises over a span of time sufficient to compensate their initial high cost and losses, 3) by subsidies offered by the government - e.g. the grant of free land to railway companies in India in the last century and 4) through multi-national operations which either proportioned the manufacturing contents in local activity to suit gradual diminution in structural diseconomies over time or brought the benefits of their global economies to bear on local activity, with a view to some kind of eventual advantage. These costs in some countries tended to devolve squarely on public enterprises. Dr. Ramanadham explains that the costs of national gestation, though applicable to private enterprises as well, are disproportionately associated with public enterprises.

The governments in the developing countries by definitive reservations of certain sectors of activity for public enterprises restrict the location of activity, attempt to choose technologies that sustain
long term self-reliance and not permit immediate profit. The colonization, and recent independence of these countries create certain conditions like the inexperience of governments, the cost tag of the rapid programmes of indigenising government and economic services and overzealous political and parliamentary interference with enterprise matters. In short, Dr. Ramanadham opines that without reference to the 'givens' that conditioned the genesis and evolution of public enterprises in developing countries, attempts at the appraisal of their performance are unlikely to be fruitful.7

Various policies of the government related to the establishment of public sector are prone to criticism. The expansion of public sector into consumer goods industry, the multiple agencies of control and their

operation, the justification of financial performance of various industries, the ineffective results of the worker's participation programmes in management, the policies concerning the import liberalisation and various other issues had been controversial. Although the macro-issues that support the public sector in the form of gestation requirement need not be a point of debate, the individual performance of various industries could also be due to various reasons other than those listed by the thinkers who viewed public sector from a broad framework of its overall functioning. Very important micro issues like the workers' attitudes to work, the atmosphere of industrial relations and the operation of the unit level management were not given their due in the scheme of things. After more than 40 years of independence, and the burgeoning expansion of the public sector, the need to understand the internal organization of public enterprises not only grows but the questions of
gestation and the necessity of public sector for the economy should take a backseat in that these questions have been answered in practice by the expansion of the public sector and also by its achieving commanding heights within the rapidly growing overall economy. Infact today the growth of the private sector itself depends increasingly on the efficient functioning of the public sector.

While the cost of operations of the public sector is a major cause of worry, the profitability of various groups of industries has not been satisfactory. Infact, the total investment in the infrastructure of public sector enterprises in the economy amount to over Rs. 2,15,000 crores and the return is barely 1.5 per cent which is clearly unsustainable as government itself has to raise monies at well over 10 per cent rate of interest. "The profit from the 235 central public undertakings in 1988-89 amounts to Rs. 3,500 crores and is largely derived from the monopoly oil and
state trading sectors and through administered prices. Over 101 undertakings are still in the red. Very few public undertakings operate in the competitive framework."

The following list of Public enterprises indicates the contribution of the top ten profit making institutions in the year 1987-88.  

<table>
<thead>
<tr>
<th>Organization</th>
<th>Pre tax profit Rs. in Crores</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONGC</td>
<td>2402.26</td>
<td>38.98</td>
</tr>
<tr>
<td>Indian Oil Corporation</td>
<td>657.76</td>
<td>10.71</td>
</tr>
<tr>
<td>NTPC</td>
<td>302.40</td>
<td>5.77</td>
</tr>
<tr>
<td>Videsh Sanchar Nigam</td>
<td>277.41</td>
<td>5.29</td>
</tr>
<tr>
<td>Mahanagar Telephones Nigam</td>
<td>208.68</td>
<td>3.98</td>
</tr>
<tr>
<td>Bharat Heavy Electrical Ltd.</td>
<td>189.30</td>
<td>3.61</td>
</tr>
<tr>
<td>Hindustan Petroleum Corporation</td>
<td>123.98</td>
<td>2.37</td>
</tr>
<tr>
<td>Oil India Ltd.</td>
<td>93.11</td>
<td>1.78</td>
</tr>
<tr>
<td>Bharat Petroleum Corporation</td>
<td>93.04</td>
<td>1.78</td>
</tr>
<tr>
<td>Airports Authority India Ltd.</td>
<td>82.75</td>
<td>1.58</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3984.00</td>
</tr>
</tbody>
</table>

The top ten companies contributed nearly 80 percent of the profits. The important point that should be noted is that out of the ten companies, five belonged to the oil sector and all these companies are monopolies. Without the oil sector the picture of profitability would have been pathetic.

Until the year 1981-82, the public sector as a whole had made only losses. Since the year 1981-82, it started making profits. In that year it earned a net profit of Rs. 445 crores. With a total investment of Rs. 51,931 crores in 1986-87, the profits after tax represented a return of 3.3 per cent only. If we exclude the profits of 11 petroleum sector companies, there is only loss from the remaining public sector units.
Return on investment in public and private companies.\textsuperscript{10}

<table>
<thead>
<tr>
<th>Year</th>
<th>Public Sector</th>
<th>Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975-76</td>
<td>2.6</td>
<td>8.2</td>
</tr>
<tr>
<td>1976-77</td>
<td>3.2</td>
<td>7.9</td>
</tr>
<tr>
<td>1977-78</td>
<td>-14.0</td>
<td>8.8</td>
</tr>
<tr>
<td>1978-79</td>
<td>0.6</td>
<td>12.6</td>
</tr>
<tr>
<td>1979-80</td>
<td>-0.9</td>
<td>14.1</td>
</tr>
</tbody>
</table>

Another example confirms the trend in the profit-making of public enterprises. In the year 1983-84, 201 public units as a whole made a profit of Rs. 1,486 crores. It is ironical that ONGC alone contributed a profit of Rs. 1,600 crores. Nine others including Oil India, Indian Oil Corporation, BHEL and Air India added up another Rs. 975 crores. However, the other 191 companies made a total loss of 1,097 crores. The

\textsuperscript{10} Sathe Vasanth, 1989. 'Restructuring of public sector' in India. New Delhi: Vikas publishing house.
meager overall profits were against the total investments of over Rs. 36,000 crores.\textsuperscript{11}

While the government control over the management and the profitability of public enterprises have caused considerable concern, the internal working of the public sector units did not attract the attention it deserves. In particular, the aspects of workers' attitudes and trade-union dynamics which operate as crucial variables in the success of an enterprise. By and large, the efforts of the government to promote workers' participation in management were not successful. As studies indicate, the trade-union movement could not fully perceive its role as a participant in management. Especially the trade-unions did not appreciate the implications of their becoming a responsible part in the production process.

\textsuperscript{11} Dey Tarun, 1985. 'Public Sector-A close look'. Times of India, 9th August.
representatives of workers and management on the works committees and the Joint Management Councils in the case of the HMT units in Hyderabad had operated in accordance with the traditional conception of their respective positions. As a result these channels of workers' participation became a part of the bargaining fora that operated in the industry. The multiplicity of unions contributed its share to the lack of consensus among workmen. One point of view on trade-unions suggested that a trade-union is necessarily a system of opposition.\textsuperscript{12} Hence the attempt to initiate the participation of the union leadership could not be successful. In addition, the worker-representatives on the works committees and joint management councils were not given a responsibility for decision-making. This reduced the interest of the workers in these committees and councils. It was also observed that the

\textsuperscript{12} Ramaswamy E.A. and Ramaswamy Uma, 1981. 'Industry and Labour' Delhi: Oxford University Press.
managements of the public enterprises showed a lack of inclination to implement these schemes in letter and spirit. Broadly the causes for the failure of the works committees and the joint management councils could be identified as the lack of participatory culture among both the parties. Infact, the tradition of union-management conflict was built into the system.

The union-management relationship not only influenced the workers' participation in management but shaped workers' attitudes as well. The trade-union affiliation to central trade-union organizations widened the scope of trade-union politics. The trade-unions which tended to be the front organizations of national political parties, opened up the possibility for political leaders' influence in the functioning of a public enterprise. The management of the public sector, already susceptible to political pressure, faced additional stress in the trade-union leaders' manipulation of the corridors of power. The union-
management relations acquired a tendency to go beyond the plant level deliberations. When the process of collective bargaining was overwhelmingly influenced by the political manipulation external to the organizational setting, the workers were impelled to choose and support the politically powerful union leaders from outside. This was particularly true with regard to HMT. Since important policy decisions affecting the workmen took shape in the agencies created by the government, it became imperative for the workers to choose leaders who could influence the government. A contrary view underlined the 'model-employer' stance of central government towards employees. This view pointed out that public sector workers enjoyed various benefits in the form of systematized wage grades, housing, transportation etc. and since the decisions concerning these issues were dealt favourably at the all-India policy level, in the dialogue at the plant level, local issues became of greater importance. The workers then tended to choose
internal leaders who were able to articulate individual issues involving interpretation of rules and consideration of local level physical and interpersonal social environment. In the actual history of HMT trade union, therefore, the internal and external leaders both played their part and accommodated each other in various situations for mutual support. In HMT of Hyderabad, the alignment of various internal and external leaders was quite a reality during various elections.

For analysing the role of a trade-union in an enterprise, we need to look at the specific history of worker-management, worker-leader relationship in the context of the public unit's performance. The trade-union organizations like CITU which are ideology based, operated by developing a committed cadre in the workforce. Over a period of time, in plants where ideology based unions like the CITU affiliated ones operated, the union's politics had come under the
influence of the party cadre. The presence of party cadre tended to create problems of conflict with management. Broadly, it could be seen that the culture a trade-union generated within the organization had seriously affected the attitude of the workforce towards the management.

Workers' attitude to work was affected by various factors such as the trade-union influence, the work situation, the kind of ideology the union propagated and the manner in which the leaders handled workers' grievances etc. However, other specific factors were,

a) nature of the workers' relationship with fellow workers,

b) the attitude of the supervisors towards the workers,

c) the individual personality as well as the social background of the workers and leaders.
These 'base level' factors had not been the focus of attention on the part of the scholars concerned with the public sector. Our study is an attempt to bridge the gap. The issues that confront trade-union within a plant generally emanate from three major areas of management. They are,

a) setting of production targets by management (production related issues)

b) the formulation of disciplinary procedures, and

c) the provision of benefits for the workers.

From the workers' point of view, these issues affect their day-to-day work. The trade-unions in order to gain the support of workers have to evolve strategies of close linkages with the management on the one hand and certain type of public postures on the other hand. If one observes the trade-union elections,
various unions resort to discussion of issues and methods to resolve problems. Anti-management postures are a common phenomena. While the general issues related to plant are openly dealt with, an undercurrent of issues operate which do not come out in the common forums. The caste affiliation of the candidates, regionalism etc., although remain subdued in public discussions, have considerable impact on voting pattern. The problem that confronts a researcher is to unscramble the undercurrents of social and personal factors which influence the dynamics of relationship. The questions posed are, how the workers choose a group of leaders? And how do these leaders solve their problems? These questions apart from being central to the study of workers' attitudes also affect the overall performance of the enterprise in a big way.

Some thinkers on public enterprises like Bagaram Tulpule hold the opinion that management within the constraints of government control can still operate
efficiently. They feel that within the parameters set by the governments, an efficient manager has considerable scope of operation.\textsuperscript{13} Seen from this point of view, the operation of unit and its analysis illustrates the strategy of management in industrial relations.

The study of the three crucial variables a) trade-union b) the workers' attitudes to work and c) the operation of the management, in relationship with each other facilitates the understanding of the internal organization and offers a scope to link it with macro-issues external to the organization. In the study of the three variables, the focus of attention is on the functioning of the organization. The study of the major contributions to the theory of organizations has helped us in placing various empirical issues in

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\textsuperscript{13}. Bagaram Tulpule, 1977. 'Amidst Heat and Noise'. New Delhi: AIMA.
\end{flushleft}
perspective. This thesis merges various middle range theoretical stand points. The open system approach of Katz and Kahn for example greatly facilitates the analysis of various faces of the organization as sub-systems. Similarly, Etzioni's analysis of compliance within the organizations has helped in grasping the responses of workman's commitment to the organization. In analysing the issues that needed technical expertise, e.g., the issues concerning technology, a general view of the respondents has been constructed. The picture provided on various crucial issues of this kind was obtained by cross checking the general opinion. The absence of technical expertise was compensated by grasping the relevance of these issues to the overall functioning of the organization. Hence, at many points in the thesis, the focus was not on the technical detail but on the relevance of the point of explanation to the objective of the study. i.e. the understanding of the internal organization of a public enterprise.
The Weberian conception of bureaucracy is a model of organization which gives less importance to the informal dimension of social structures within organizations. Various elements of bureaucracy such as hierarchy, rules, regulations and procedures, specialisation, predictability and rationality are essential normative and structural elements of the model. Modern organizations have universally adopted bureaucratic forms of functioning. Infact, it could be argued that complex organizations cannot function without using bureaucratic models. However, the dysfunctions of bureaucracy are many. The rigidity of bureaucratic system giving way to conservatism and technician is well known. Similarly, bureaucracy determines the individual initiative. The impersonality of bureaucratic system militates against such human qualities as complexity and uniqueness. It
is argued that bureaucracy even affects the personality
to conform to its norms. The excessive commitment of
the individual to his own role within the bureaucratic
system clashes with the broader objectives of the
organization. While the study of formal aspects of
organizations can fully utilise the available theory of
bureaucracy, the diversity of individual approaches
probably linked to the fact that individuals act as
complete personalities and not as fragmented roles
forces us to look at the informal dimension within
organization.

Parallel to the concept of bureaucracy which could
be considered as a contribution from the discipline of
sociology, other disciplines like management and
administrative theory have also contributed to the
understanding of the formal dimension of the
organization. Henri Fayol mentions the following

principles of formal organization. They are, division of work, authority, responsibility, discipline, unity of command, unity of direction, subordination of individual interest to general interest, remuneration of personnel, centralization of decision-making, scalar chain of hierarchy of command, order, equity, stability of tenure of personnel, initiative and sense of belonging among personnel. These ideas of Henri Fayol are the basic principles on which the administrative theory has been built. He defines management as consisting of five elements namely 1) to command 2) to organise 3) to forecast and plan 4) to coordinate and 5) to control. 15

The emphasis of scientific management rests upon man-machine coordination for efficiency. Frederick. W. Taylor formulated the principles of scientific management. His conception of monetary incentives

producing the required initiative in workers is no longer popular. The scientific management school was pre-occupied with technical control and maximization of efficiency through the coordination of man and machine. It developed models showing the division of labour in terms of function and authority. Growth came to be shown in the context of increasing specialization, efficient placement of human in the chain of command, and changes in the delegation of authority and responsibility. The treatment of workers as mere appendages to machines by this school is not acceptable to many a management thinker. The inherent assumption in Taylor's principle is that people are lazy and they try to shirk work. Taylorism has been widely criticised of dehumanization of work. The concepts of scientific management are widely used in industrial engineering, industrial management and personnel management.

The Hathorne studies of Elton Mayo initiated a study of informal relationships in organizations. While experimenting with lighting conditions and their effect on production with two groups of workers, (one test group and the other control group) Mayo found that irrespective of the change in lighting conditions, the production of both the groups went up. This baffled the researchers. It was noticed that change was perceived by the groups as a means to improve production. Changes in physical environment were also interpreted as related to competition between control group and experiment groups. The dynamics of informal linkages acting as intervening variables came to be high-lighted.\textsuperscript{17} Elton Mayo's observations led to the development of the human relations school. Individual as a member of work group became an important area of study. The emphasis on the individual, the work group

\textsuperscript{17} Mayo Elton, 1930. 'The human problems of industrial civilization', Harvard: Harvard University Press.
and participation in decision-making has been widely accepted. The human relations school was criticised for its preoccupation with the concerns of the employer as regards the morale, efficiency and productivity of the employees. The basic assumption of this school is that there exists no contradiction in the interests of workers and management and that it is possible to resolve conflict by reorganizing relationships within the organization.\textsuperscript{18} It did not look at the organization in the context of its place in the wider society. The human relations school which neglects conflict has also been criticised as having a pro-capitalist bias.

Chester I Bernard described an organization as a dynamic social system of cooperative interactions with the purpose of satisfying individual needs. A

\textsuperscript{18} Rothlisberger. FF. Dickson. WS. 1939. 'Management and the workers', Harvard: Harvard University Press.
cooperative system is complex of physical, biological, personal, and social components which are in specific systematic relationship by reason of the cooperation of two or more persons for a definite end. He defines formal organization as a system of consciously coordinated activities or energies of two or more persons. His emphasis on the psychological and social aspects of organization leads to the analysis of motivational and non-rational elements of human behaviour. His explanation of the conscious coordination provides the opportunity for the investigator to deal with the level of coordination among different individuals of the sub-units of the organization. According to Chester Barnard the policy decisions concerning the general approach towards goal attainment and the allocative decisions concerning utilization of resources available to the organization fall in the category of providing 'effectiveness' to

the organization, whereas decisions concerning facilitating cooperation and motivation among participants fall in the category of providing 'efficiency' to the organization. In this sense, the second category of decisions imply a higher degree of voluntary human involvement and creative responses and thus, do not yield so easily to analysis.

Philip Selznick explains that organizations may be viewed from two stand points which are analytically distinct but empirically united in the context of reciprocal consequences. In his view any organizational system is an economy and at the same time, it is an adaptive social structure. His view of organization as an economy facilitates the analysis of leadership in connection with the legitimacy of authority and dynamics of persuasion. This view of organization is in concurrence with the management viewpoint that leadership is an art of winning consent and support from the participants. Discussing about
delegation as an organizational act he states that it refers to formal assignments of functions and powers to roles and official positions. Delegation often involves concrete individuals, who have interests and goals which do not always co-incide with the goals of the formal system. This situation might result in personalities offering resistance to the formal authority. He further explains that deviations from the formal system tend to become institutionalised so that unwritten laws and informal associations are established. The institutionalisation process transforms the personality differences into structural aspects of formal organization. Conceiving of formal organizations as cooperative systems signifies the relevance of informal structures in the organizational analysis.

Selznick refers to structure as an adaptive 'organism' which reacts to influence from external environment. He characterises structural-functional
analysis as that which relates contemporary and variable behaviour to the system of stable needs and mechanisms. The "needs" in the above statement relate to the self-maintenance of the empirical system. The day-to-day activity serves the purpose of maintenance and defence of the system. The structural-functional approach gives ample scope to study empirical systems as adaptive to external environment. To clarify the structural-functional analysis, he draws homology with individual personality which has the need to defend its ego, utilises repetitive mechanisms such as rationalisation, projection and regression in its defense. The typical pattern of structural-functional analysis can be derived from the homology. Selznick gives three major ideas which are involved in the frame of reference outlining the theory of organizations.

They are,

a) The concept of organization as a cooperative system and an adaptive social structure made of interacting individuals, sub-groups, and informal and formal relationships.

b) Structural-functional analysis which relates variable aspects of organization (such as goals) to stable needs and self-defensive mechanisms and

c) The concept of recalcitrance as a quality of the tools of social action, involving a break in the continuum of adjustment and defining an environment of constraints commitment and tension.

Talcott Parsons gives us an interesting model of organizational analysis. His approach provides scope for the analysis of the relationship between
organization and its environment. He states that the attained goal of an organization (system) can be utilised by another system. i.e. the output of one organization becomes an input for another organization. The characteristic of 'goal attainment' thus is given primacy in Parsons' discussion of the social system.

The development of power in a political sense takes place in the organization when the persons responsible for mobilising resources for the attainment of organizational goals control the decision-making. The goal of the organization is a specialised or differentiated function for the larger social system. The other sub-systems of the larger social system constitute the situation or environment in which the organization operates. Hence organization has to be analysed as a special system whose primary interest is the attainment of 'system goals'.

The analysis of the structure of an organization, according to Parsons, can be attempted from two
different view-points. The first is the cultural-institutional point of view and the second is the 'group' of role point of view. At the cultural-institutional level of organizational analysis, the system of values should spell out the institutional pattern responsible for the generation of these values in terms of the context of goal attainment, adaptation to the situations and integration of the system. Since the organization is a sub-system, the value system of the organization implies the more generalised values of the super-ordinate system. The value system of the organization should legitimise the goal of the organization in terms of the functional significance of its attainment for the super-ordinate system. The legitimation of the primacy of this goal should take place over the possible interests and values of the organization and its members.

The second approach based on group or role analysis views an organization 'through its constituent
personnel and the roles they play in the functioning of the organization. The administration which carries out the policy formulation, decision-making and their implementation through line and staff comes under the focus of attention. This approach leads to the typical study of the formal authority structure.\textsuperscript{21}

In the analysis based on value system as the main point of reference, structure can be divided into three main components. The first concerns the field of institutionalisation of the modes of procurement of resources to attain the goal. The second is the aspect of the institutionalisation concerning the process of goal attainment, and finally, is the aspect of institutional patterns defining and regulating the limits of commitments of the organization as related to other organizations sharing the same environment of the

\textsuperscript{21} Parsons Talcott, 1956. 'Suggestions for a sociological approach to the theory of organizations' Administrative science quarterly, I PP. 63-85.
inclusive system. In the process of implementation of the three sets of institutionalisation requirements, three kinds of decisions are involved, the policy decisions, the allocative decisions and the coordination decisions.

Exercise of power is seen as a crucial function of organization by Etzioni. The sub-ordinate and super-ordinate relations are seen in terms of the power applied on sub-ordinate participants and resultant involvement of participants. He classifies the power applied on lower participants as comprising of three categories: coercive, remunerative and normative. When the relationship of compliance is congruent, the three categories of power evoke three kinds of responses: aginative, calculative and moral respectively. A congruent compliance relationship exists when the kind of involvement that tends to be generated by the predominant form of organizational power are the same.
He explains that organizations tend to shift their compliance structures from incongruent compliance structures tend to resist factors pushing them toward incongruent compliance structures.22

Daniel Katz and Robert L Kahn present a theoretical model of organization which they refer to as 'energic input-output system'. In this model the energic return from the output reactivates the system. Social organizations according to them are flagrantly open systems, in that the input of energies and the conversion of output into further energic input consists of a transaction between the organization and the environment. Their conception of organization as consisting of a patterned activity of a number of individuals opens up the possibility to study individual and group behaviour in organizations. They explain that an open system with the characteristic of

negative entropy emphasizes the close relationship between a structure and its supportive environment. Without continued inputs the structure would soon run down. Human effort and motivation is the major source of maintenance in almost all social structures. Hence, though the theoretical approach deals with relationships, these relationships concern human beings. This expression of Katz and Kahn's model indicates the relevance of human behaviour operative in every aspect of the various sub-systems in a structure.

The major categories of sub-systems of an organization are production sub-system, maintenance sub-system, adaptive sub-system and managerial sub-system. The criticism of systems approach is severe on the ground that it considers an organization as constantly being in a state of dynamic equilibrium. The concept of dynamic equilibrium is a postulate on which the entire open-system theory rests. The
following arguments indicate the criticism:

1) Reaction to extra-systemic change is not always adjustive,

2) Social systems can, for longer periods, go through a vicious circle of every-deepening mal-integration,

3) Change can be revolutionary (both profound and sudden),

4) The social structure itself can generate change through internal conflicts and contradictions.\(^{23}\)

The open system is characterised by importation of energy from the environment, transformation of energy into product and export of the product into

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environment. The open system also shares the properties of negative entropy, feedback, homeostasis, differentiation and equifinality. The law of negative entropy implies that it survives only so long as it imports more energy from environment than it expends in the process of transformation. The feedback informs the environment. It acts as a signal to the system to correct its malfunctioning to maintain its homeostasis or dynamic balance. The principle of equifinality asserts that the system can reach the same final state from different initial conditions and by different paths of development. 

Within the systems approach to the study of organizations, the Tavistock institute of London conceived the idea of 'socio-technical' system, which explains that any productive organization is a

combination of technology (task requirements, physical layout, equipment available) and a social system (a system of relationships among those who must perform the job). According to this conception, it would be wrong to argue that only the social psychological character of participants determines the nature and performance of job. Similarly, it would be a misconception to think that an established structure and procedure of performing a job (the technical setup) has an overwhelming impact on the conduct of the participants in the organization. The technology and the social system have a mutual impact on each other and it is from this perspective that an organization should be viewed. The properties of the open system in combination with the idea of socio-technical system suggest the multiple channels of interaction of the organization with the environment.25

Simple view of the organization conceived as an open system.\textsuperscript{26}

![Diagram of a simple system: Input → Transformation → Output, with Maintenance and Regulation.]  

Without the coordination of three systems indicated in the diagram, the organization can not function.

The view of organization from the socio-technical point of view questions some of the traditional conceptions of work-organization. The traditional ideas of organization implied an established pattern of activity and influenced organization for over a century in the industrialised countries. Hierarchy and uniform

\textsuperscript{26} Litterer A Joseph, 1973. 'The analysis of organizations', New York: John Wiley
activity for the participants of organization were considered dominant features. Mechanisation, standardisation and specialisation were the principles on which industrial production was carried out. After a point, it could be observed that organization created by man started creating the 'organization man'. The dehumanisation of work was reflected in jobs like those of the assembly-line workers whose work-life tended to get fragmented, routinised, monotonous and stressful. The new technological developments in the form of automation and later in the micro-chip revolution brought in new forms organization and a new way of improving the quality of working life. But there is widespread opposition to new ideas. Einar Thorsrud explains the reasons why there is widespread opposition to new ideas of organization.27

1) The traditional formats were quite suitable to the main technological trend, i.e. mechanisation, and it took time to realise that the shift to process and electronic technology required new formats.

2) The effectiveness of large-scale, hierarchical organizations was measured in simple economic terms that did not reveal their wastage of energy, human resources and their threat to ecological balance.

3) Traditional forms protect the privileges of people with power and high status. This was true not only of owners, members of management and highly educated specialists but also of groups of privileged workers and staff.

4) The traditional forms 'conditioned' or taught people to accept what they saw all around.
With time, people stopped looking for alternatives. Those who had privileged positions found good reasons why they needed them or deserved them. Those who had not, learnt to live with the situation.

5) The traditional forms included payment systems, planning and administrative routines etc. which needed to be adjusted to new forms of organization. When these adjustments took place, uncertainty arose about how managerial control was to be maintained. This may have been the case even when the new forms were designed to reduce the needs for internal coordination and control and enabled the management to concentrate on the more important control of interaction between the organization and outside world,

6) It takes time to develop new forms of organization. Before the necessary
conditions for new forms are established, people often give up and return to 'the devil they know' rather than take risks with the unknowns.

This study attempts to understand the traditional form of labour organization in its functioning and its impact on the participants. The views of the participants are given prominence in the observation and various facets of the organization are discussed.
The Plant

The Hyderabad unit of Hindustan machine tools ltd. has been selected for the study. The study is confined to the two divisions of the company, the machine tools and the lamps. The two divisions together employ a workforce of nearly 4500. Both the divisions have separate administrations headed by the general managers. The head office is located at Bangalore and the unit management is accountable to the Chairman and Managing directors and four functional Directors on the board for the functions of personnel, marketing, policies and corporate planning. While the machine tools division is strategic to the economic development providing industrial infrastructure to the country, the lamps division finds its place in the consumer goods sector of the country. This aspect of the organization facilitates the study of government policy affecting different sectors and offers a chance to compare the
two divisions. Situated in the suburbs of Hyderabad, the company owns a fleet of busses to provide transport facility to the employees residing in various parts of the city. Nearly one fourth of the workforce live in the two housing colonies, constructed by the HMT housing board.

Machine tools division

The growth in the productive capacity of the machine tool industry was the linchpin for the Mahalanobis strategy because, in an essentially closed economy, accumulation of capital stock would not be possible in its absence. As late as 1960, machine tools accounted for only 0.3 per cent of the total value of manufactured goods. This itself shows how the machine tools which no doubt, have strategic importance for development, had been neglected. The growth in machine tool production accelerated sharply with the implementation of the Mahalanobis strategy during the
second five year plan. The performance of the industry is apparent from the fact that in the ensuing third plan its production went up by roughly twice as much as for the whole of the preceding twenty years.28

The penetration of foreign machine tools into the economy has been growing since the early 70's. In 1973 imports represented 28 per cent of total consumption of machine tools in India. By 1985, however, the self sufficiency gap had widened to 56 per cent. This unsatisfactory development strongly suggests the increasing dependence on foreign made tools to satisfy the market for the sophisticated high-technology machine tools which India is not yet able to produce.

A more disturbing aspect of the industry's growth performance has been with regard to exports. Although machine tool exports have always represented an insignificant proportion of the machine tool output, no

progress at all has been achieved in improving the ratio of output to exports. In 1984, the proportion of exports to production was 7 per cent only.\textsuperscript{29}

The fact that India which ranked 11th in world machine tool production in 1966, slipped to 18th in 1986 seems to suggest that other newly industrialising countries are experiencing relatively faster growth in machine tool output. According to 'American Machinist' country survey, India's output value of US$ 29 billion represented only 0.9 per cent of world machine tool output. The picture is even gloomier for exports. Here India ranked a lowly 28th, with only around US$ 20 million as export earnings. Against this figure Taiwan, Singapore, Brazil and South Korea earned 12.0, 4.0, 1.9 and 1.2 times as much respectively. India's exports in 1986 accounted for barely 0.2 per cent of the world machine tool exports. In the 1980-81 IMTMA -

\textsuperscript{29} Mathews, Ron, Ibid.
annual report, the industry's total output of 'machining centers', one of the most advanced pieces of tool technology, amounted to only two units. The same year's output for Japan was 4,820 units, with production as high as 333 units even as far back as 1971. The age distribution of machine tools in India indicates that 53 per cent of tool population is more than 10 years old, whilst over 21 per cent is more than 20 year old.\(^{30}\)

The HMT is one of the world's 10 largest machine tool houses. Now it has 14 factories, 20 divisions and 28,000 employees. During the industrial recession of 1966-70, HMT diversified its activities and moved into manufacturing of special purpose machines for the company's continuity in business. HMT of Hyderabad took up this activity. These machines ranged from drum turret Lathes to high speed multi-spindle automatics and

30. Mathews Ron, Ibid.
transfer lines. The technological environment of machine tools is rapidly changing in the wake of the electronic and mechatronic revolution in the manufacturing world. The machine tool industry in the country is poised for a high leap forward. The development council for the machine tool industry has visualised a steady 15 per cent annual growth for machine tools in the next decade. This implies that, the production will go up from its present Rs. 330 crores to around Rs. 1,160 per annum by 1992-93.

The special purpose machines manufactured by HMT of Hyderabad require a lead time of nearly 8 to 10 months. Each product has approximately 300 components and around 130 machines are produced every year. These components flow through approximately 25 manufacturing stations taking a considerable amount of time (waiting time, transit time and other delays).
The performance of HMT Hyderabad division (Machine Tools).

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (Rs. in Lakhs)</th>
<th>Sales (Rs. in Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979-80</td>
<td>1202.15</td>
<td>1202.44</td>
</tr>
<tr>
<td>1980-81</td>
<td>944.65</td>
<td>906.69</td>
</tr>
<tr>
<td>1981-82</td>
<td>1604.62</td>
<td>1603.46</td>
</tr>
<tr>
<td>1982-83</td>
<td>2103.63</td>
<td>2042.48</td>
</tr>
<tr>
<td>1983-84</td>
<td>2600.91</td>
<td>2339.82</td>
</tr>
</tbody>
</table>

Lamps division

The company set up a plant at Hyderabad for manufacturing lamps, lamp making machines and fluorescent lamps in collaboration with a Hungarian firm Tungsram, in the year 1978. It manufactures range of bulbs, tubes and needed components. Unlike machine
tools division, the lamps division has experienced poor financial performance since its inception. Presently the unit faces tough competition in the market from private sector companies like Philips, Bajaj, Sylvania Laxman and Crompton Greaves.

The performance of the unit during the years from 1978 to 1983.

(Rs. in Lakhs)

<table>
<thead>
<tr>
<th>Year</th>
<th>Profit or Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978-79</td>
<td>- 87</td>
</tr>
<tr>
<td>1979-80</td>
<td>+ 12</td>
</tr>
<tr>
<td>1980-81</td>
<td>-300</td>
</tr>
<tr>
<td>1981-82</td>
<td>+ 12</td>
</tr>
<tr>
<td>1982-83</td>
<td>-461</td>
</tr>
</tbody>
</table>

One of the reasons attributed for the losses was higher consumption of materials than the norms fixed.
This is evident from the following figures.

<table>
<thead>
<tr>
<th>Item Particulars</th>
<th>Value in Rupees 1982–83</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Budgeted norms per 1000 Nos.</td>
</tr>
<tr>
<td>1. Consumption</td>
<td></td>
</tr>
<tr>
<td>A. GLS Lamps</td>
<td></td>
</tr>
<tr>
<td>i) Raw Materials</td>
<td>1453</td>
</tr>
<tr>
<td>and components</td>
<td></td>
</tr>
<tr>
<td>ii) Stores and spare</td>
<td>410</td>
</tr>
<tr>
<td>parts, packing materials etc.</td>
<td></td>
</tr>
<tr>
<td>B. F.E. Lamps</td>
<td></td>
</tr>
<tr>
<td>i) Raw Materials</td>
<td>6630</td>
</tr>
<tr>
<td>ii) Stores and spare</td>
<td>1877</td>
</tr>
<tr>
<td>parts, packing materials etc.</td>
<td></td>
</tr>
</tbody>
</table>

Excess manpower and weak marketing policies have also been regarded as the major causes for its financial loss. To reduce the excess workforce, a watch-case division has been proposed for establishment into which the excess workers of the lamps division
will be diverted. While the pruning of man-power is a step towards efficient cost-management the other important factor, viz. competition in the market, needs to be tackled. Bulbs being a consumer product, only the efficient marketing can increase the sales. The retail shop owner gains his share of profit in the of commission for the bulbs and tubes sold. The private companies with their flexible and aggressive marketing policies offer better commission to the retailer and get their products sold. Slackness in devising aggressive market policies is clearly evident in the case of the lamps division.

No specific projections of demand were made for lamp making machinery before establishing the project. The total production during the last five year (1978-83) was only 8 machines which was the annual licensed capacity. The capacity utilisation for production of lamps also was only 74 per cent in 1982-83. There was higher consumption of material than norms fixed. Heavy
rejections and quality complaints like shorter life, caps coming off, breaking of holder pins, fusing out etc. were reported. The cost of production was abnormally high, being more than double the budgeted norms for fluorescent lamps in 1982-83. The unit has suffered a total loss of Rs. 8.24 crores during the five years between 1978-83. The parliamentary committee (82-83) also viewed with concern the poor performance of this particular unit. They are of the view that the company should not have gone in for the production of lamps, an area quite different from its main line of production, viz. machine tools. The production management and cost control in the unit left much to be desired. The unit had gone into production twelve years ago, but the modification required in the machinery to achieve the rated production was carried out after nearly six years. The committee also stressed the need for improving the quality of the products and upgrading the technology for the manufacture of lamps as well as lamp making machinery.
The heavy losses of HMT lamps division raised certain important issues. The first being the policy of the government to diversify public sector in the highly competitive consumer market. Generating employment seems the only justification the government can offer in starting Hyderabad lamps division. The other objectives of the establishment of the public sector can not be justified. It is located in the industrially developed urban centre, hence the question of bridging regional imbalance does not arise. The other objectives like promoting self reliance in strategic sectors, providing infrastructural facilities, preventing concentration of economic power, generating surpluses for investment, social control over trade and industry can not be justified in the case of the establishment of HMT lamps division.