CHAPTER 1: INTRODUCTION
CHAPTER - 1

INTRODUCTION

This study is an attempt towards exploring various aspects of the organisational structure in medium scale industrial concerns in the Indian setting.

In the early years of the twentieth century F.W. Taylor who came into prominence focussed on men instead of machines in order to increase industrial efficiency through his 'time and motion studies'. But his idea of scientific management was not concerned with men in themselves or their relations with fellow men but the attempt was to manipulate them as tools for higher production. However the significance of the human factor was recognised in industry by the industrialists after Taylor.

In the 1920s and 1930s Elton Mayo and his associates came to realise the importance of social factors and human relations among groups by conducting several experimental researches, beginning with a psychological standpoint.

Mayo's researches have been strongly criticised on numerous occasions for not producing the results that it claimed, but have stood the test of time.¹ This research is considered to be the first substantial research in human behaviour at work, and it stands as the founding philosophy of the human relations field. It was emphasized by the proponents of this school of

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thought that industry is not merely an economic organization but it is also a social or human organization, and the social or human side of industry is equally important.

Douglass summarises well the attributes of the industrial worker. Some of these are: (i) industrial man is a human being who acts as a member of a team; (ii) industrial man, working on a team, produces best when his dignity and feelings as a person are respected; (iii) industrial man performs best when he finds 'friendly and supportive relationships' in his work group, and (iv) industrial man is creative.  

Formal groups are deliberately created with structural associations and are formed to accomplish specific goals and carry out specific tasks. The formal structure consists of hierarchy of authority, division of labour, and norms of relations that are laid down in its rules. These refer to the authority relations, the specific functions, the communication system and assignment of responsibilities. Basically, formal groups (i) assist in the accomplishment of goals much less haphazardly than do informal ones; (ii) facilitate the co-ordination of the activities or functions of an organisation; (iii) aid in establishing logical relationships among people and positions; (iv) assist in the application of the concepts of specialisation and division of

labour; and (v) create group cohesiveness as a result of a common set of goals.³

The network of personal and social relations which are not prescribed by formal rules is called informal structure. It consists of congeniality group such as gangs, friendship, and cliques; and the relations between these groups, in terms of expectations, obligations, prestige and influence. It is composed of the animosities, jealousies, and friendships among the people who work together. It is constituted by face-to-face groups, cliques and pressure groups that develop in industry. It is sustained by the folkway, mores, norms and values which guide the behaviour of workers; sometimes in the fulfilment of the goals of the organisation and sometime in retarding the achievement of these goals.⁴

Objectives of the Study

The main objective of this study is to throw light on formal and informal structures in medium scale industry. Just as large scale and small scale industries have distinct characteristics so also the medium scale industries have distinctive features in their formal and informal structures.

The major aspects on which this study is focussed are:
(a) to analyse the socio-cultural characteristics of the functionaries in medium scale industries; (b) to explore the functions of formal structure - hierarchy of authority, departmentalization, wages and salary administration, promotion policy, communication network, grievances and grievance handling, employment status of the respondent, disciplinary actions and welfare schemes; (iii) to explore the function of informal structure - worker and his work group, worker and his relations with functionaries at higher positions, informal network (grapevine), leadership pattern, motivation, power structure; and (iv) to discover the factors affecting industrial relations and conflict.

What is more important from the sociological angle is the fact that in large scale industries there is excessive layering - too many rungs of employees at different levels. Information passes through too many people, decision through too many levels and there is impersonality in interpersonal relationships, whereas in small scale industries the personal relationships are face-to-face and even familistic. The characteristics of medium scale industries are neither like large scale nor small scale industries. The medium scale industries have distinctive sociological features. The present research work is an attempt to bring out these features.
Studies Made So Far

A few studies have investigated the significance of the structure of industrial organization.

Gouranga P. Chattopadhyay and Ashok Malhotra have concluded that authority is necessary for managing any system. On the other hand, the basic thrust of hierarchy is control. Hence the need for control and, consequently, hierarchy must remain. Nina Jacob, V.S. Mahesh and N.M. Agrawal emphasis the need of delayering hierarchy in organisation. V.S. Mahesh has expressed the view that the human beings and their attitudes, aspirations, fears and motivation form organisations; and it is they who are affected when one attempts are made to restructure. Mayer has found that the affect of size on other parameters, the number of subunits, level of hierarchy, and supervisors are ubiquitous. Gardner and Moore have distinguished between the long, narrow structure and the broad flat structure of organisation. The long hierarchy provides the


opportunity of supervision over a small number of workers but
the broad flat structure lightens supervision and provides a
large area of freedom to the workers. The rules and regulations
of the formal organization have been held responsible by Mayer
and Rowan for their expansion and increased complexity.9

Shintra explained how communication is being recognised
as the most important tool of management for promoting
cooperative attitudes among employees.10 A study was made in a
large industrial organization about the tools of communication.11
The studies on formal structures can be undertaken in the spirit
of purely scientific inquiry as has been done by Elliott
Jaques12, A.W.Gouldner13, T.Burns and G.M.Staller14, W.L.Warner

Formal Structure as Myth and Ceremony', American
10. Shintra, V.P. 1967. 'A Study of Communication between
Management and Employees', Indian Journal of Social
Experience of a Large Industrial Organization'.
Business Review, Boston, Jan-Feb., pp.127-133.
13. Gouldner, A.W. 1954. Patterns of Industrial Bureaucracy,
Free Press Clence, Illinoiois.
Innovation, Tavistock Publication, London.
and Low\textsuperscript{15}, and Ram Charan\textsuperscript{16}.

N.R.Sheth\textsuperscript{17}, B.S.Baviskar\textsuperscript{18}, and D.B.Unwala\textsuperscript{19} have made partial attempts in this direction, analysing the structures of relationships among people working in factory in relation to the social and cultural framework within which they live. While Sheth's emphasis is on the social structure around the factory he studied, Baviskar's emphasis is on the political structure and organisation influencing the interactions among management and workers.

Shaila Desouza has concluded that the criteria for the success of non-hierarchical functioning is the value for equality, commonality of goal, and adequate training to empower individuals with skills to achieve the goals. It is particularly applicable to service or knowledge based organizations where delayed decision-making will not hamper the achievement of organisational goals but in fact be profitable by avoiding hasty decisions.\textsuperscript{20}

Pulak Das and K.B.Akhilesh have attempted to examine the effect of four forms of organizational reward, namely, promotion, gross salary, take home salary and yearly company profit based bonus on pay level and benefit satisfaction, and has noted that pay level satisfaction is most sensitive to the variations of the take home salary and least sensitive to the variation of aggregate profit based industrial bonus on the other hand; the benefit satisfaction is almost independent of the take home salary.  

The interest in informal structure developed so much as a result of the Western Electric Studies in the 1930s, that both Dalton and Crozier declared informal organization to actually be the basic structure, that is, what makes people do their work more. Kurt Lewin, after doing pioneering work in the study of small groups became interested in discovering whether some of the methods of dealing with autonomous groups could be applied to groups of workers within an industrial organization. This led to the development of the Hardwood Manufacturing Company's...

experiment programme carried out by Alex Bavelas, John R.P. and Lestern Coch. After Roethlisberger, Gardner, Burleigh and David have shown that in a factory, the kind, and the location of machines have immediate impact on the size and membership of workgroup ('formal' or 'informal'), the norms relevant to sustaining the group, the relative prestige of individual members, and clique formation inside a large group.

Kimber David and Greg Birchall have indentified factors which enhance or reduce trust and have attempted to develope a model which combines theories relating to human values and trust and the way trust influences behaviour in personal, organizational and societal contexts.

Agrawal has emphasised how institutionalized arrangements which relate earnings of workers to productivity, can throw up a type of leadership which in turn helps in motivating the workers to enhance production and in building harmonious relations between the workers and the management.

Singh has concluded that the process of self-empowerment and self-reprogramming in realising one's leadership potential and presents certain techniques that can be successfully used for developing oneself as a leader. 31

Method of the Study

Towards the end of 1954, the government of India decided to locate the third iron and steel plant at Bhilai on the recommendations of the Russian technicians and experts. On the 2nd February, 1955 an agreement was signed between the government of India and the USSR for technical collaboration in the establishment of an iron and steel plant at Bhilai. After the establishment of Bhilai Steel Plant at Bhilai, a number of medium scale industries grew up around Bhilai because of the easy availability of many products and by-products of the Bhilai Steel Plant. The potential for supplying parts and equipment to the Bhilai Steel Plant also gave a fillip to the growth of medium scale industries.

At present ten medium scale industries are operating in the Bhilai industrial estate. From these ten medium scale industries, two with the largest number of workers and two with the smallest number of workers have been taken for intensive empirical study. The two with the largest number of workers are

the Bhilai Engineering Corporation Limited (1395 workers) and the Bhilai Wires Limited (410 workers). The two enterprises with the lowest number of workers are the Simplex Udyog (218 workers) and the Bharat Industrial Works (112 workers). These industries are located in the Chhattisgarh region which lies in the south-eastern part of the state of Madhya Pradesh. Plans are currently afoot to establish a separate state of Chhattisgarh:

A total of 356 respondents belonging to different types of job categories of the four medium scale industries were selected through stratified random sampling, so that all rungs of functionaries - manager, deputy manager, assistant manager, foreman, supervisor and workers (skilled, semi-skilled and unskilled) were represented in the sample and at the same time there was no bias in the selection of particular respondents. A 15% sample for those two industries - the Bhilai Engineering Corporation Limited (208) and the Bhilai Wires Limited (61) - which have the largest number of workers and a 25% sample for two industries - Simplex Udyog (56) and Bharat Industrial Works (31) which have the lowest number of workers, has been drawn. It is obvious that the size of the samples from various industries shows a slight variation in proportion to the total population of the industries. The reason for this is that almost all existing rungs in these industries have been proportionately taken in the present study.
### Method of Sampling

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Name of the Company</th>
<th>Number of Employees</th>
<th>Percentage apply</th>
<th>Sample Drawn</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bhilai Engineering Corporation Ltd</td>
<td>1395</td>
<td>15%</td>
<td>208</td>
</tr>
<tr>
<td>2.</td>
<td>Bhilai Wires Limited</td>
<td>410</td>
<td>15%</td>
<td>61</td>
</tr>
<tr>
<td>3.</td>
<td>Simplex Udyog</td>
<td>218</td>
<td>25%</td>
<td>56</td>
</tr>
<tr>
<td>4.</td>
<td>Bharat Industrial Works</td>
<td>112</td>
<td>25%</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>2135</td>
<td></td>
<td>356</td>
</tr>
</tbody>
</table>

![Bar chart showing the sample drawn for each company]
The major tool used for data collection is a carefully drawn interview schedule. It was pretested several times before finalisation. For depth investigations of formal structure and informal relations, intensive interviews were conducted with the help of appropriately designed interview guides. Observation has also been used for making a study of the work group relations directly. Information regarding formal procedures, hierarchy of authority, rules and regulations, departmentalization, etc. has been collected from the Personnel Offices. The interview schedule consists chiefly of structured and pre-coded questions. The data have been tabulated by the processes of Computer programming.

In the 1998-99 union budget of India the capital limit of small scale industries has been laid down as Rs.1 crore. All the four industries under present study have a total capital outlay of more than Rs.1 crore each. They thus fall in the category of medium scale industries according to the prevailing statutory norms in our country. According to the widely prevalent international norms industries having less than 100 workers are regarded as small scale units. From this criterion also the four industries which have been studied empirically through the present piece of research would come in the category of medium scale industries, as each of these has more than 100 workers.  

All over the world large corporations have been withdrawing from direct manufacturing activities and concentrating more on marketing, technology creation and networking with small and medium firms. Hence emphasis has been given to small and medium firms in the Union Budget 1998-99. Very few studies on formal and informal structure in medium scale industries have been conducted in Indian industrial organizations. Thus, this piece of research is likely to be beneficial for the scholars of concerned disciplines.

Universe of Enquiry

Bhilai Engineering Corporation Limited

The Bhilai Engineering Corporation Limited was established in 1966 in Bhilai as one of the first ancillaries of the Bhilai Steel Plant. Since then this company has grown into a very large and integrated engineering complex manufacturing a variety of high technology and high precision products for India's core sector industries.

The seed for this venture was sown in 1948 by a young and enterprising technocrat Mr. B.R. Jain.

Bhilai Engineering Corporation Limited now provides vital inputs and services to a number of major industries in the country's core sector - steel, mines, cement, power, heavy industries and the railways. Bhilai Engineering Corporation Ltd.
has its factory and registered office in the Industrial Area, Bhilai.

In Bhilai Engineering Corporation Ltd. two major units have been operating - the iron and steel foundry and the engineering division.

The iron foundry was the first unit to be set up with a small foundry beginning its operation with 150 ton. Today, the capacity has been expanded to 1250 ton per month. The foundry now has facilities for manufacturing single-piece castings up to a weight of 30 ton.

The steel foundry was initially setup with a 0.5 ton arc furnace. On subsequent expansion, this capacity was raised substantially by installing a 5 ton arc furnace. The company's capacity for steel castings is now 350 ton per month. Bhilai Engineering Corporation Limited's steel foundry has developed a wide range of alloys, steels and castings for the core industries. The steel foundry also produces CASNUB bogies for the Indian Railways.

The engineering division comprises workshops for the fabrication, machining and assembly of technological equipment. The manufacturing facilities consist of a well equipped fabrication and assembly shop. Equipment up to 50 ton is being manufactured here. The engineering division manufactures a wide range of products. Some of these products include material
handling equipment like Grab Buckets, special purpose rolling stock for steel plants, rolling mill equipment, heat exchangers and pressure vessels.

Bhilai Wires Limited

The Bhilai Wires Limited (BWL) is a listed, public limited dividend paying company engaged in the manufacturing of different sizes of mild steel and carbon steel wires. The company was incorporated as a public limited company on 22nd June 1971 and commenced business on 8th August 1973. Bhilai Wires Limited has its factory and registered office in the Industrial Area, Bhilai. The company has an installed capacity of 24,000 ton per annum.

Bhilai Wires Limited is engaged in the manufacturing of a wide variety of high carbon wires, mild steel wires, special wires and strands. The main customers of the company include the Post and Telegraph Department, various electricity boards and various private concerns.

Bhilai Wires Limited has been promoted by Mr.H.P.Khetawat, who is also the Chairman and Managing Director of the company.

Simplex Udyog

In 1940, a small company called Simplex Engineering and Foundry Works was founded by Late Shri Bhanji Monji Shah at
Jabalpur. In 1980, Simplex Udyog started associating itself with the giant public sector company, the Bhilai Steel Plant, in the construction of the steel plant. In 1990, Simplex established well knit comprehensive facilities for fabrication, castings, forging and machine shops with inhouse design and engineering facilities.

The Simplex Group of Industries has three units in the Bhilai Industrial Area, namely: the Simplex Engineering Corporation, the Simplex Udyog and the Simplex Casting.

In the Simplex Udyog, three main units - Machine Shop, Fabrication Shop and Assembly Shop - have been operating.

Bharat Industrial Works

The Bharat Industrial Works (BIW) has been working in steel fabrication, erection and mechanical equipment erection. The company's workshop is very well equipped and capable of undertaking submerged arc welding. The Bharat Industrial Works has a wide network spread all over the country. The company has 38 years of experience in its field and has a wealth of expertise, skilled man power and equipment. One of its unit was established at Hatkhoj, Bhilai in 1988. Mr. Mukesh Jain is a Director of the unit.
The present study has been divided into six chapters.

Chapter One deals with the Introduction of the present research work - which provides a concept of formal and informal structure, objectives of the study, review of literature, the method of study and the universe of enquiry.

Chapter Two discusses the socio-cultural characteristics of the functionaries in medium scale industries. It consists of employee's age, marital status, number of dependents, length of service with the organization; and their caste, religion, mother-tongue, native place and type of family.

Chapter Three deals with the functioning of the formal structure - hierarchy of the organization, departmentalization, wages and salary administration, promotion, communication network, grievances and grievance handling, disciplinary action, status of employment, working hours, etc.

Chapter Four deals with the functioning of the informal structure - worker and his work group, worker and his relations with functionaries at higher positions, informal status, informal network (grapevine), leadership pattern, motivations and power structure.

Chapter Five deals with the industrial relations and conflict prevailing in medium scale industries.
A summary and conclusions have been given in Chapter Six.

Lastly, a selected bibliography has been provided.