CHAPTER - TWO
THE SETTING AND METHOD OF THE STUDY

- Indian industrial profile
- Profile of the selected industrial enterprises
- Survey population
- Sources and methods employed for collection of data
- Method of analysis
  - Variables involved
  - Pattern of analysis
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Indian Industrial Profile

Industry as a means of accelerated development has been recognised by Indian planners from the times immemorial. We find elaborate discussions on the role of Industry even in the treatise of Kautilya - the renowned economist of Ancient India. Although Krishi, Pasupalaya and Vanijya were recognised as the three principle vocations providing men with the means of livelihood, stress at that time was laid on manufacturing in industries.¹

Before the arrival of the Britishers India was industrially advanced as compared to the economies of the West European Countries. Indian Textiles, Crafts and many other items were famous all over the world. The Britishers systematically destroyed the industrial base of India. As result India inherited a weak industrial structure at the time of Independence.

Realising this fact no doubt progress of industrialisation over the last four decades has been a striking feature of Indian economic development. Process of industrialisation was launched in the early fifties. The first Industrial Policy Resolution was passed in 1948. This resolution was amended from time to time in 1956,
1973, 1977 and then in 1980. Again, in order to remove the hazards - leading to frustration, escalation of cost and other bottlenecks, in setting up new projects or in the expansion of existing one; the Industrial Policy resolution was amended on May 31, 1990 - which covered the following areas:

The practice of Industrial licensing has been abolished for all industries with a maximum capital of Rs. 2 crores excepting in the case of 18 industries related to defence needs, social reasons and manufacture of luxury items.

No prior approval from Government under Monopolies and Restrictive Trade Practices (MRTP) Act, is required before starting new industries or expanding the existing one or in case of mergers and take over. Rather the emphasis of MRTP Act will be only on controlling and regulating monopolistic, restrictive and unfair trade practices.

The new industrial policy has opened up some of the areas also to private sector on a selective basis to encourage competition, which are till now reserved only for public sector. Similarly public sector will also be allowed to enter areas not reserved for it.
To attract foreign investment, the new policy provides for automatic approval in the high priority industries for direct foreign investment in companies up to 51 per cent of share capital. Thirty four industries have been included in this high priority sector. A special Empowered Board will be set up shortly to negotiate with a number of large international firms and approve direct investment, and automatic permission will also be available for foreign technology agreements in high priority and non high priority sector industries.

In pursuance of this policy, large investment has been made in building up capacity over a wide spectrum of industries. Industrial production has also made rapid strides in terms of variety, quality and quantity. But still Indian Industrial sector is far behind the desired destination. Perhaps this all is due to regional imbalances, lack of entrepreneurship, under utilization of resources, poor performance of Public sector and above all the indifferent attitude of the most important, precious and active factor of production - "the employee".

It is the employees and not the machines or money which develop or ruin an organisation. The employee today,
whether an officer or a worker is much frustrated and shows his half heartedness towards work. If we want to be at par with other nations in the field of Industrial growth, the very cause of frustration among our most active factor has to be traced out and appropriate measures have to be initiated for resolving the same.

PROFILE OF THE SELECTED INDUSTRIAL ENTERPRISES:

Constrained with time and other resources the present study has been confined only to the four enterprises stratified randomly selected from the Northern Region to represent the prominent segments of the Indian Industrial sector, namely, public, co-operative and private. These enterprises are The Hindustan Insecticides Ltd., Delhi; Maruti Udyog Ltd. Gurgaon; The Haryana Co-operative Sugar Mills Ltd., Rohtak and The Hindustan National Glass Industry (Pvt.) Ltd., Bahadurgarh. The first two enterprises represents the public sector; the third one presents the co-operative sector whereas the last one is from the private segment of the Indian Industrial Sector. With a view to understand the importance of the selected enterprises, a brief background of the concerned industrial group and the enterprises themselves would be of interest in this context.
HINDUSTAN INSECTICIDES LIMITED (HIL):

Pesticides which include insecticides, fungicides, rodenticides etc. have assumed a vital role both for agriculture and public health purposes. Pesticides industry has registered a steady progress during the past three and half decades time. Basic manufacture of pesticides commenced in India only after 1952 with the setting up of a plant at Rishra near Calcutta for manufacture of benzene-hexa chloriade (BHC), which was followed by another DDT plant (Hindustan Insecticides Ltd., Delhi) in 1954. Currently there are only forty seven units engaged in manufacture of technical grade pesticides and over 500 Units making formulations. Today approximately one lakh employees are employed in pesticides industry. As a result of increase in production of pesticides in the country, imports of the same have come down substantially and India is almost self sufficient in point of meeting the demand for pesticides.³

There are only two enterprises in Public Sector in Pesticides Industry and one of them is HINDUSTAN INSECTICIDES LTD.(HIL) which manufactures pesticides primarily for National Malaria Eradication Programme. It's a Government of India undertaking with its Head Quarters at Hans Bhawan, ITO, New Delhi, situated at Jakhira, Delhi,
on Delhi-Rohtak Road, National Highway No.10, about 5 kilometres from Karnal bypass. Its establishment is an outcome of an agreement with UNICEF and WHO in 1952. This enterprise came into existence in 1954 and went into production in April 1955 with a capacity of 700 tonnes DDT per annum, which was doubled twice in 1958 and 1970 bringing the total rated capacity of the plant to 2,744 tonnes per annum.

HIL has three plants. While one is located at Delhi, the other two are found functioning at Udyogmandal and Rasayani, respectively, in the States of Kerala and Maharashtra. The enterprise is engaged in the manufacture of DDT, BHC, Malithion and Endosulfan, the four major pesticides used in the country.

HIL with an authorised capital of Rs. 50 crores (as on Dec.1990) is entirely financed by Government of India. With all its shares being in the name of the President of India. Specific allocation of funds are made every year in the name of company through the concerned ministry and the Managing Director of it is authorised to use the same as and when required in the interest of organisation.

**MARUTI UDYOG LIMITED (MUL):**

The automotive industry in India commenced its
development in early 1940's with the establishment of first passenger car plant on the outskirts of Calcutta followed by two more plants at Bombay and Madras during 1950's. Though passenger cars and commercial vehicals industry took shape through Sixties and Seventies of the current century, the emphasis was on the manufacturing of public transport vehicals and on medium and heavy duty commercial vehicals, agricultural tractors and two wheelers. Consequently nearly for three decades there was no induction of new technology in passenger car sector and production stagnated. However, the year 1982 marked an important watershed in the history of Indian Automotive Industry. The Central government decided to take up the manufacture of a people's car in public sector. The advent of Maruti Car opened the floodgates of contemporary Japanese Technology to Indian Market. Indian Governments' liberalisation of Industrial Policy set in motion a near total transformation of the Industry through modernisation and technological upgradation. The Car Market had been dominated for the past three decades by mainly two major producers i.e. Hindustan Motors Ltd. and Premier Automobiles Ltd., but today MARUTI UDYOG LTD is at number one and had left all the cars, jeeps and vans manufacturers far behind.4

Standing on 120 hectares of land with a built up
area of 8000 square metres, situated on Palam-Gurgaon Road in Haryana, 10 Km. from Palam Air Port, Maruti Ltd. was originally a Private owned company subsequent upon the nationalisation of this private firm, The Maruti Udyog Ltd. was incorporated as a public sector enterprise in 1981. In pursuit of a foreign culture the company contacted several auto makers in Europe and Japan and finally Suzuki Motor Company of Japan was selected.

On Oct. 2nd, 1982, a licence agreement to last for a period of ten years was signed between Suzuki Motor Company and Maruti Udyog Ltd. for the transfer of technology relating to this project. At the same time Joint Venture agreement was also signed between Indian government and Suzuki Motor company, accordingly subscribing 26 per cent equity shares with the option of raising it upto 40 per cent to Suzuki. Moreover the Joint Venture agreement made Suzuki Motor Company an active partner in the management of Maruti Udyog Ltd. Mr. O.Suzuki, President of Suzuki Motor Company is also a director in Maruti Udyog Ltd. In addition Suzuki has put some of their engineers, technicians and other managers to work in various areas of the project till company establishes its own. Maruti Udyog Ltd. with its Head Offices in New Delhi has also four regional officer in Bombay, Madras, Calcutta and Chandigarh.
On January 23, 1992 in a very significant development, the Government of India issued orders for raising the share of its parent Japanese Company (Suzuki Motor Company) from 40 to 50 per cent equity, making Maruti Udyog Ltd., the first Public Sector company to a Joint Sector Venture with the purpose to enjoy the advantage of both- the private administration and the interest and support of Government. Regarding the new structure of the company the Suzuki and the government intends to discuss the matter soon with a view to finalise its shape.

THE HARYANA COOPERATIVE SUGAR MILLS LIMITED (HCSM), ROHTAK:

India is the birth place of Sugarcane and sugar. There is mention of sugarcane in the Atharva Veda in 500 B.C. This is perhaps the earliest description of sugarcane in the history of world. there are references of Sugar in the institute of Manu, the medival treatise of Charaka and Susruta in the records of Megesthenes and also in Arthashastra of chanakya during 321-296 B.C.  

Today also Sugar Industry occupies an important place in the organised industrial sector of India. it is the second largest processing industry next only to Cotton Textile Industry of the Country. In 1989-90 there were 392 sugar factories in India employing nearing 1.5 lakh
population. On Dec. 12, 1986 Government had announced a policy for licensing of additional capacity in Sugar Industries during Seventh Plan. Again in May, 1989 the licensing policy was relaxed. Accordingly, the first priority was accorded for establishment of new Sugar Factories in Cooperative Sector followed by Public sector.

Currently there are 217 out of 392 factories in Cooperative Sector. In Haryana itself out of eleven Sugar Mills only one is operating in private sector and The Haryana Cooperative Sugar Mills Ltd. Rohtak is the oldest one depicting the segment of Cooperative sector. Situated at a distance of one mile from the city, by the side of Circular Road between Bhiwani and Jhajjar routes; six furlong away from Rohtak Junction on the Southern bank of famous Drain No.8. The mill was registered under the Punjab Cooperative Societies Act in May 1954, with an authorised Capital of Rs. 1 crore. On May 10, 1955 an order for a Complete Sugar Manufacturing plant of double Corporation and sulphitation process with crushing capacity of 1000 tonnes a day, with M/S A.F.Craig X Co.Ltd. Paisley, Scotland (U.K.) was placed. The erection of the plant started in the same year and so on the factory made its debut on the industrial map, when it went into production in Nov., 1957. Subsequently in 1967 the capacity was raised to 1,250 tonnes and further in
1980 it was raised upto 1,750 metric tonnes per day. The installation of a Distillary Plant is also under thought.

**HINDUSTAN NATIONAL GLASS INDUSTRY (PVT.) LIMITED, (HNG) BAHDURGARH:**

Glass making is almost an oldest art on the earth. Glass has been used since the earliest times, as is seen from the archaeological findings. Though the antiquity and use of glass was known from many countries, Mesopotamia is the earliest place of its manufacture. Undoubtedly, glass was known in India in first millennium B.C. as this has been proved by the discovery of four glass beads and a cylinder of pure blue glass at Maski in Southern Daccan.\(^8\)

Though first glass factory was set up by Bal Gangadhar Tilak about 100 years ago in Cooperative Sector, the organised glass industry flourished in India only after 1932. Currently the country is almost self sufficient in practically all the items of glass and glasswares. Also the quality of glass products manufactured in India compares well with those in abroad.

As in 1985-86 there are about 31 Units producing glass bottles and tumblers; 8 Units of sheet glasswares; 4 Units of Vaccum flasks and 4 Units of Laboratory glasswares, employing nearly 1.5 lakh population of the country.\(^9\)
The Hindustan National Glass Industry (Pvt.) Ltd., Bahadurgarh, represents the private sector. With its Head Office in Calcutta the enterprise established in 1961, commenced its business in 1964. The enterprise, biggest and unique in Asia, produces various items of glass such as tumblers and bottles of different sizes and shapes to be used by all a common man and in the factories as well, as containers for their product. Throughout India and also in some other countries like Shrilanka, Nepal, Saudi Arabia, Bengla Desh and Kenia.

Running round the Clock in three shifts the plant is situated in East of Bahadurgarh, a town on border of Delhi, on National Highway No.10, with Bus Stand in front and Railway Station on its backside.

All the organisations selected for the purpose of this study are from Northern India and are located in Delhi and Haryana. But while selecting these organisations a special care has been taken. Each organisation has its own unique characteristics. HIL a public sector enterprise is the second largest pesticides producing unit in the country. MUL stands at number one in manufacturing of passenger cars. Secondly, the second enterprise (MUL) again from public sector has been selected because of its unique policies mainly based on Japanese Corporate Culture and thus a better comparison of Indian and Japanese cultures had also been visualised.
Sugar has its birth place in India and The Haryana Cooperative sugar Mills Ltd., Rohtak is the oldest Sugar Mills in Cooperative Sector in the State of Haryana. Glass making has been considered and proved the oldest art on the earth and The Hindustan National Glass Industry (Pvt.) Ltd., Bahadurgarh is the Unique in Asia. Moreover, all the selected industrial Enterprises are rich in manpower. A bird's eye view is depicted of the selected enterprises for this study in Exhibit 2.1

SURVEY POPULATION:

Of the total number of employees found working in various organisations selected to complete this research endeavour, a total sample of 203 respondents have been selected on a stratified basis so as to provide representation to all the three categories of employees, namely, top and executive level of managers, supervisors and operative employees. While selecting the respondents, care has been taken that all the broad functional areas of management, namely, Personnel, Finance, Production and Marketing get their due representation with a view to secure perceptions of all categories of employees. Some pertinent details of the sample would be of interest in this context.

Since the strength of total number of employees
EXHIBIT 2.1: INDUSTRIAL ENTERPRISES SELECTED FOR THE STUDY: 
VITAL INFORMATION

<table>
<thead>
<tr>
<th>Industrial Enterprises</th>
<th>Year of establishment</th>
<th>No. of Employees</th>
<th>Place of Location</th>
<th>Sectoral Representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIL</td>
<td>1952</td>
<td>740</td>
<td>Zakhira, Delhi</td>
<td>Public</td>
</tr>
<tr>
<td>MUL</td>
<td>1982</td>
<td>3239</td>
<td>Gurgaon, Haryana</td>
<td>Public</td>
</tr>
<tr>
<td>HCSM</td>
<td>1955</td>
<td>758</td>
<td>Rohtak, Haryana</td>
<td>Cooperative</td>
</tr>
<tr>
<td>HNG</td>
<td>1964</td>
<td>878</td>
<td>Bahadurgarh, Haryana</td>
<td>Private</td>
</tr>
</tbody>
</table>

* As found on rolls between June 1989 to June 1990.
differ in all the four enterprises, the total number of respondents chosen from each one of them, have also varied for different hierarchical levels.

In HIL the total number of employees were 740 as at the end of June 1989; 15 were in the top and executive level managerial cadre, 75 in the supervisory and the rest 650 were operative employees. And, the sample chosen includes: 7 Heads of the various Functional Departments, 18 Supervisors and 26 operative employees; it means a total sample of 51 from HIL.

In Maruti Udyog Ltd the strength of employees was 3,239 at the close of July, 1989 in which were included 28 managers (L_{18} and L_{19}), 92 Supervisors (L_{8} and L_{10}) and 3119 operative employees. Of these we selected 14 managers, 12 supervisors and 26 operative employees. Thus the total number of respondents selected from MUL stands at 52. As MUL has a well defined scheme of promotions and it was discovered during the preliminary discussions with the union leaders/members that promotions for the operative employees more or less confirm to the laid down policies, therefore, it was thought proper to delimit the number of respondents from the supervisory and operative employees.
EXHIBIT 2.2: ENTERPRISE AND HIERARCHY-WISE DISTRIBUTION OF THE CHOSEN SAMPLE

<table>
<thead>
<tr>
<th>Enterprise</th>
<th>Managers</th>
<th>Supervisors</th>
<th>Operative Employees</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIL</td>
<td>7</td>
<td>18</td>
<td>26</td>
<td>51</td>
</tr>
<tr>
<td>MUL</td>
<td>14</td>
<td>12</td>
<td>26</td>
<td>52</td>
</tr>
<tr>
<td>HCSM</td>
<td>5</td>
<td>19</td>
<td>26</td>
<td>50</td>
</tr>
<tr>
<td>HNG</td>
<td>6</td>
<td>12</td>
<td>32</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
<td><strong>61</strong></td>
<td><strong>110</strong></td>
<td><strong>203</strong></td>
</tr>
</tbody>
</table>
The strength of employees in the Haryana Cooperative Sugar Mills Ltd, Rohtak stood at 758 as at the end of Dec., 1989. Hierarchically this strength included 10 managers, 78 Supervisors and 670 operative employees. Of these 5 managers, 19 supervisors and 26 operative employees have been selected for the study. It adds up to 50 as respondents from this unit.

In HNG the strength of employees stood at 878 in July, 1989 which covered 12 managers, 50 Supervisors and 816 workers. Of these a total sample of 50 respondents comprising of 6 managers, 12 supervisors and 32 operative employees have been set aside. The enterprise and hierarchywise distribution of total respondents selected for this study may be seen in Exhibit 2.2

**SOURCES AND METHODS EMPLOYED FOR COLLECTION OF DATA:**

The work has been completed mainly with the help of primary data / first hand informations gathered by the author, although secondary data too have been used particularly for appraising the promotion policies of the covered industrial enterprises.

In terms of the first and second objectives the information in respect to promotion policies have been collected from the Brochures available on Recruitment and
Promotion Rules for Employees in case of HIL, and from Post Appraisal Counselling Formats, Circulars relating to Service Rules and documents pertaining to Service Agreements with the Union in case of MUL, HCSM and HNG respectively. A few gaps in the informations, pertaining to promotion policies, were further filled in by holding personal discussions with the executives found working in the personnel departments of the covered enterprises on the one hand and by cross examining the solicited informations from the leaders of workers' unions.

With a view to analyse and contrast the actual practices from the laid down promotion policies items were included in Part 'C' and 'D' of the schedule designed for carrying out this study. These items included questions broadly on such issues as the type/types of promotion policy/policies being practised in respect to their managerial, supervisory and operative employees.

And in order to evaluate the impact of actual practices on such aspects as job satisfaction, morale, loyalty and sense of belongingness; employee's turnover rate and on the overall organisational efficiency and productivity, the primary informations have been gathered via inclusion of focussed questions on aforesaid subjects in the Part 'A' and 'C' of the schedule referred to above.
The informations relating to these aspects have, however, been in the form of perceptions of the respondents belonging to different categories. The impacts of actual promotional policies on the above mentioned aspects have been assessed with the help of results of 't' test and through appropriate types of percentages.

A set of questions further find their place in Part 'E' of the schedule for soliciting informations from the respondents to improve the existing promotion policies and practices as found prevalent, so as to ensure desired level of organisational efficiency and effectiveness. However, the suggestions received from the respondents have been analysed in an analytical and descriptive manner.

Thus an exhaustive schedule has been designed (see, please, appendix : A.1) for gathering adequate primary informations with a view to satisfy all the objectives set for this study. This Schedule has its six parts. The first part deals with the general questions such as the name, designation, status and experience etc. of the respondent, the second part relates to such questions as may highlight the impact of promotion policies in the accomplishment of organisational objectives. The nature of questions covered in part
third, fourth and fifth have already been highlighted above. The concluding part of the schedule includes certain open-ended questions pertaining to promotion. Let us, however, mention in respect to this closing part that non-too-incoming responses could be given by the respondents. To the above it may be further added that quite a meaningful information was also collected by the author via recording certain observations too made at the time of interviewing the respondents. With a view to facilitate free and frank discussion, the interviews were arranged with the respondents at place of their work and in canteens. The Union representatives and Personnel Managers were specifically interrogated. And all efforts were made to create an environment of informal relations in order to have an insight into the research problem and lay hands on non revealed informations. In nutshell, all possible has been done to gather objective, unbiased and really meaningful information on the subject of the study.

METHODS OF ANALYSIS:

VARIABLES INVOLVED:

In terms of the objectives set, the significant variables on which the attention has been focussed could be summarised in three categories, namely, the criteria elements of the promotion policies designed for different
categories of employees by the enterprises falling within the purview of this study, the elements and actual practices observed and those pertaining to the impact on the performance of the concerned enterprises. These dependent variables have been analysed in relation to certain independent variables. Important independent variables which constitute the base of our analysis are:

(i) industrial unit wise HIL (Public Sector) MUL (Public Sector), HCSM (Cooperative Sector) and HNG (Private Sector);

(ii) hierarchical levels - Managers, Supervisors and Operative Employees;

(iii) work experience - which have been divided into three categories viz : Employees possessing Low Experience (1 to 10 years), with Moderate Experience (11 to 20 years) and with High Experience (21 years and above).

In the context of the method of analysis, it may be mentioned that being relatively less significant certain independent variables like age, sex, income group, educational qualifications and different departments have been left out from the orbit of analysis primarily keeping in view the specific tasks set for this study.
ANALYSIS PATTERN:

As indicated earlier a schedule divided into six parts has been used to collect the primary data related to the promotion policies and practices. Then for the purpose of further analysis the score values were calculated from the obtained responses. As the questions included in the schedule were structured to be responded in terms of a five point scale, a maximum of 5 scores were assigned to every statement for the calculation of the score values of each respondent viz: the response SA was assigned 5 scores; the A -4; the I - 3; the D - 2 and SD-1 and out of these five responses the respondent was supposed to check (✓) or encircle (〇) only one response. Thereafter, the response scores of the related dependent variables of individual respondent were counted, the tables (given in appendix B.1 through B.3) were prepared and analysed employing the 't' test and simple percentages.

In order to make a comparison of various dependent variables related to the impact of promotion policy (covered under Part B of the schedule) between general opinion and opinion with own organisation, has been done with the help of 't' test of correlated groups. With a view to maintain accuracy the tables were analysed with the help of a computer; a stepwise computation of this test as programmed through computer, has been illustrated
in subsequent paras. Besides this 't' test in case of individual statements the response frequencies have been calculated and analysed with simple percentages.

Most of the questions in the schedule (Part C) have been arranged to be answered in Yes/No so as to know the actual practice for promotion policies in different selected Industrial Units for various positions. Here the yes response frequencies have been calculated and again analysed with simple percentage method.

Likewise the basis for promotion of employees in their respective organisations have also been analysed with the assistance of simple percentages by counting frequencies, item-wise, included in 'Part D' of the schedule.

Another point worth mentioning is that, in case of the percentage analysis at some places the response frequencies have been clubbed where the replication in favour of a particular response was found negligible.

STATISTICAL TOOLS EMPLOYED:

As indicated earlier the analysis has been done statistically with 't' test and simple percentages. The step-wise illustration of the same as programmed through Personal Computer is as given hereunder:
't' test of Correlated Groups:

\[ \bar{x} \text{ (mean)} = \frac{\sum x}{N} \]

\[ \sigma \text{ (STD)} = \sqrt{\frac{\sum x^2}{N} - \left(\frac{\sum x}{N}\right)^2} \]

\[ \frac{\sigma}{\bar{x}} \text{ SEM} = \frac{\sigma}{\sqrt{N}} \]

\[ r_{12} = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} \]

(xy is the difference of the scores in relation to general Perception and Perception about their own organisation the two variables).

\[ \sigma_d = \sqrt{\frac{\sigma_{x_1}^2}{N_1} + \frac{\sigma_{x_2}^2}{N_2} - 2r_{12}\frac{\sigma_{x_1}^2}{N_1}\frac{\sigma_{x_2}^2}{N_2}} \]

\[ t = \frac{\bar{x}_1 - \bar{x}_2}{\sigma_d} \]

Finally the obtained 't' value of the difference of these two correlated groups was measured up to .05 degree of significance at df obtained through: \( df=(N_1-1)+(N_2-1) \).

The simple percentages were calculated:

\[
\frac{\text{Obtained Response frequencies}}{\text{No. of respondents}} \times 100
\]
NOTES


