

Industrial Relation Climate and Provision of Labour Welfare Measures in Manufacturing Sector

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Abstract

The study was conducted on a sample population of 150 employees of two manufacturing units based in West Bengal, India. Mostly permanent workers at plant level and employees of the zonal offices were considered for the purpose of the study. The overall objectives of the study focus on finding the general causes of job dissatisfaction and industrial fatigue among workers in the manufacturing sector, including the problem of industrial relations and getting proper statutory labour welfare benefits. Improper job scheduling, overburden of work and job complexities were some of the major factors of industrial fatigues that had been detected from structured questionnaire survey. Though majority of the employees revealed that the general industrial climate was good, in many cases employees were not aware of the claim settlement procedure about various provisions under the Gratuity Act and ESI Act leading to delays and payments not being received in time. This study also established the fact that overall industrial relation climate, availability of welfare measures and awareness level of the employees about different social security schemes varies with the educational level, total tenure of the employees in the present company and total years of working experience of the employees in the manufacturing sector. Lastly, lack of proper trade union to reflect employee grievances, proper training and engagement programmes are the other causes of disengagement and attrition of employees in the manufacturing sector, as also reflected from this study.

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Keywords

Industrial relation, labour welfare, labour legislation, manufacturing

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Introduction

Manufacturing sector is emerging to be one of the integral parts of economic growth in India. As technology encouraged creativity, with digital transformation, the Indian manufacturing sector is steadily moving towards more automated and process-driven manufacturing, which is projected to improve efficiency and enhance productivity. With 17% of the nation's gross domestic product (GDP) and over 27.3 million workers, the manufacturing sector plays a significant role in the Indian economy. Through the implementation of different programmes and policies, the Indian government hopes to have 25% of the economy's output come from manufacturing by 2025 (*Source: IBEF-India Brand Equity Foundations*). India now has the physical and digital infrastructure to raise the share of the manufacturing sector in the economy and make a realistic bid to be an important player in global supply chains.

But total number of employees in over 2.50 lakh factories decreased in 2020–2021 to 1.60 crore from 1.66 crore in 2019–2020, while the number of workers employed in the factories reduced to 1.26 crore from 1.31 crore during the same period. The employment numbers in factories then showed a pickup in 2021–2022, with the number of employees rising to 1.72 crore, marking a compounded annual growth rate (CAGR) of 1.7% from the pre-pandemic year of 2019–2020. The number of workers, too, recorded an increase in 2021–2022 to 1.36 crore, with a CAGR growth of 2.1% over these 2 years (*Source: The Indian Express E-paper*). Keeping in view India's vision of becoming 'Atmanirbhar' and to enhance India's manufacturing capabilities and exports, an outlay of ₹1.97 lakh crore has been announced in Union Budget 2021–2022 for production-linked incentive (PLI) schemes for selected key sectors for a period of 5 years starting from fiscal year (FY) 2021–2022.

On the other hand, attrition in the manufacturing and services industries saw an increase of 0.46% from 7.81% in second quarter to 8.27% in third quarter, according to a report by TeamLease Services (*Source: Hindu Business Line 30 January 2023*). This report also confirmed that attrition has increased for a number of reasons in this sector, which include a high demand for skills in technology, risk, assurance and areas such as environmental, social and governance (ESG). In the post-COVID period, talent management has become more important and the impact was high on the manufacturing segment as claimed by Balasubramanian A, Vice-President and business head at TeamLease Services. It leads to retrenchment, poor pay cuts, lack of growth and closing down of some of the factories, leading to frustration and boredom on the general workers and poor quality of work life for the employees in manufacturing sector. The general reasons may be manifested in the form of employees getting better opportunities in other sectors compared to the manufacturing

sector, or they are not being able to acclimatise in their workplace due to lack of autonomy, wrong job allocation, overburden of work, lack of work–life balance, bad boss, not getting better pay packages and welfare benefits. Among start-ups in manufacturing, attrition rates were alarmingly high at 26%. Attrition has increased for a number of reasons, including an unprecedented high demand for hot skills in technology, risk, assurance and areas such as ESG. So, creating an enduring employee relation climate through better career prospects, trustworthiness among employees and employer group through highest level of employee engagement, and developing potential leaders are the key human resources (HR) challenges faced by managers in this sector. Again, it is imperative that monetary rewards and social recognition have an impact on employees' performance. Generally, as an effort to stimulate employees' performance, many companies in manufacturing sector had used extrinsic rewards (e.g., monetary incentives and recognition) to motivate their employees (Ayesha, 2014). While some of the empirical research had shown that extrinsic rewards help to enhance individuals' performance, which contribute ultimately towards organisation performance and better industrial relation climate.

In this study, an attempt has been made to find out the general causes and dissatisfaction among the workers and employees of two manufacturing unit based in Kolkata and Howrah and also to find out how far the organisations were providing labour welfare benefits and whether general workers and employees were aware of their rights and privileges of getting their claim under different labour legislation, namely ESI Act 1948, Employees Provident Fund and Misc. Provision Act 1952, Maternity Benefit Act 1961, Payment of Gratuity Act 1972, etc. The research design is exploratory, and convenient sampling is applied for data collection from the respondents. The total sample size was 150 respondents, both men and women. Data were collected from employees of two large-sized manufacturing plant engaged in synthetic industrial belts and polymer products and another in the manufacturing of spinning cans used in real estate construction work. The scope of the study mainly includes all permanent employees of two manufacturing unit near Kolkata in West Bengal. The main aim of the study is to investigate the industrial relation problems at their workplace and how far they are benefitted from welfare benefits that are provided to them from their companies. Though the findings of the study are specific to these two manufacturing units, from the studies in literature reviews, it can be concluded that some of the industrial relation problems that are highlighted in this study are more or less the trends in the manufacturing sector that the workers are facing today in India.

Theoretical Framework: John Dunlop Model of Industrial Relation

A conceptual model, as depicted by John Dunlop in the 1950s (Figure 1), explained that the industrial relation system was a subsystem of the wider society that existed to resolve economic conflict. It comprised four elements and these are actors, contexts, a body of employment rules that are the outcome of the interaction between the actors and a binding ideology. The actors were identified as employers

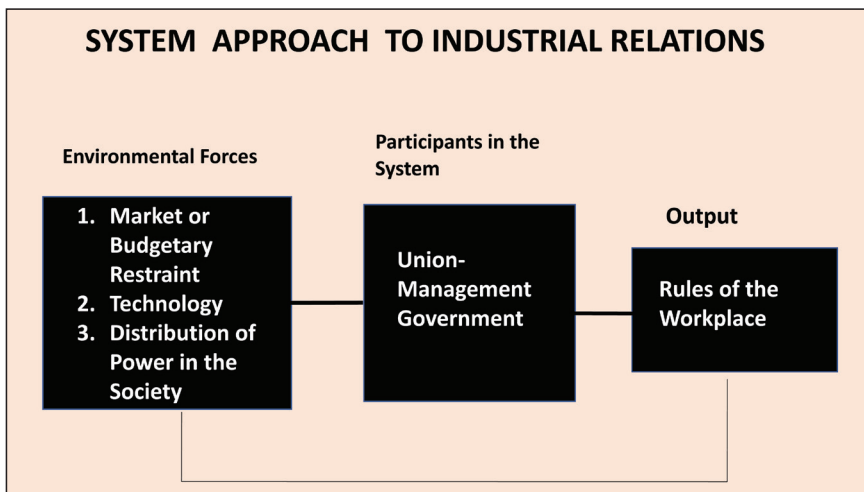


Figure 1. Simplified Version of John Dunlop Approach to Industrial Relations.

and their organisations, employees and any representative body of workers, such as trade unions, and the government and public agencies. The contextual factors that shaped the conduct of industrial relations were technology, market and budgetary constraints and the distribution of power within the wider society. Within these constraints, the actors develop substantive and procedural rules by unilateral action, by joint regulation, or by tripartite action involving the state. Finally, the whole system is bound together by shared understandings and beliefs leading to the rules of the workplace or happy industrial relation system.

Dunlop's argument was that employment relationship in any industrial system culminates into a set of rules and regulations, which will govern the relationship. The rules and regulations define and specify rights and obligations of actors in the industrial system. Dunlop depicted about two types of rule—substantive and procedural—in industrial system. Substantive rules will include general work conditions, welfare package and remuneration considerations. Procedural rules have to do with the methodology adopted by industrial actors to ascertain substantial rules. These include collective bargaining, grievances, promotion, transfer or layoff. Web of rules are standard, expected behaviours of actors in the industrial-relations system (Anderson & Gunderson, 1982). So, in this study, an attempt has been made to find out general awareness of the employees about their substantive rules and how far the peaceful co-existence of the procedural rules are possible to be maintained in the manufacturing sector.

Objectives of the Study

1. To find out the general causes of job dissatisfaction and industrial fatigue at workplace among the employees.

2. To investigate how the industrial relations climate, availability of welfare benefits and nature of claim settlements under different labour legislations vary across the demographic profile of the surveyed population like level of education, service period in the present company and their total years of industry experience.
3. To find out the awareness level of the employees regarding the availability of welfare benefits and how to process the claim settlement in case they are eligible to get the labour welfare benefits as per the legislative provisions.

Literature Review

Upadhyay and Gupta (2012) revealed that employee communication has a pivotal role in the area of increased level of satisfaction of employees. It is obvious that satisfied employees have high morale. Welfare measures and work experience had no relation with satisfaction in their study. Therefore, it is not only recommended that company should provide for adequate measures on welfare but also company should not burden itself by increasing the cost part of it in order to earn the competitive edge and for making a positive brand image. Other important factors such as good and open communication, motivational factors, empowerment, etc., should be taken into consideration for higher level of employee satisfaction.

Mishra and Mishra (2013) discovered few important factors which were the prominent causes for attrition in the rapid growing Indian manufacturing sector. They were monetary benefits, absence of motivation, absence of personal benefits and poor working condition. Therefore, to reduce the level of attrition, industries must generate some opportunities for the growth of their human assets within the organisation through adaptation of new innovative technologies and effective training programmes.

Jayashree (2015) investigated job satisfaction with various aspects of employee welfare among 297 employees of garment industry, and statistical analysis revealed that employee welfare measures were positively related with job satisfaction, working condition, canteen facilities, rest rooms and financial incentives. It was also concluded labour welfare measures (LWM) followed in garment industry were satisfactory.

Hemlatha et al. (2017) discussed in their study that the main purpose of employee welfare is enrichment of employees' life and keeps them happy, satisfied and contented. Employee welfare helps to motivate the employees for their better performance in the workplace; it also improves the human relationship. It leads to an increased level of job satisfaction among employees. Job satisfaction is a multifaceted dimension and a very significant integral component of organisational climate. It acts as an important element in between management and employee relationship.

Loganathan and Ashwini (2017) showed in their study that in manufacturing industry, the level of attrition is very high and it is a critical issue. Bhardwaj and Singh (2017) made their study on engineers and non-engineers in a manufacturing industry in India. Their study showed a strong relationship between type of job

and factors of attrition. Statistical analysis clearly stated that there was a strong relationship between type of job and factors of attrition. Thus, change in any one will affect the other as well. At the same time, other important outcomes like for technical jobs salary is the most important factor and for non-technical people relationship with their immediate boss is the major factor.

Anusha and Bindu (2019) depicted that every organisation has different pattern of dealing with its employees through its policies on allocation of resources, reward, penalty, leadership, decision-making style, etc. The organisation policy, attitudes and behaviour of its members result in the creation of a unique organisational strategy. Unions in unprotected sectors were unable to oppose greater flexibility even when there were no considerable wage gains, whereas workers in protected sectors manage to maintain their status and at times even enhance their welfare, both in terms of higher wages and better working conditions.

Beloor et al. (2020) conducted a study on job satisfaction level and employee welfare in garment industry. The findings of the study showed that there is an association between welfare facilities provided and satisfaction in job. The study explored that welfare facilities had a significant impact on the job satisfaction. Analysis also revealed that experience, education level and salary of an employee had an association with the job satisfaction.

Nagakumari and Pujitha (2021) concluded from their study that though company was providing both statutory and non-statutory benefits, as well as employee welfare facilities, and employees are satisfied, but still there is a scope for further improvement. So that efficiency, effectiveness and productivity can be enhanced to accomplish the organisational goals.

Yadav (2021) carried a study which identified the statutory and non-statutory LWM adopted by different industries and its relationship between employee satisfactions at workplace. His article had given a comprehensive review of various studies conducted by experts and researchers of all over the globe on LWM and its determinants and establishes the relationship between employee satisfactions at workplace.

Maiya (2022), in her study, tried to establish a relationship between the satisfaction level of the workforce, especially operators, with regard to the labour welfare facilities provided by the organisation. The study intends to highlight the gap that was created in the COVID-19 pandemic situation with reference to the facilities under LWM. Her research also aims to analyse the labour welfare schemes in the manufacturing sector.

Identification of Research Gap

Different research articles, through literature review, reveal that comprehensive studies regarding the impact of the demographic profile of the employees in manufacturing sector on the factors of overall industrial relation climate, availability of statutory and non-statutory welfare measures are less. So, this study is focused on making an investigation in this particular gap to find out the real

causes of frequent absenteeism or industrial fatigue and job discontentment in manufacturing sector, as well as to find out whether important variables of industrial relation have any kind of relationship with the demographic profile of the sample respondents and their awareness level regarding the various welfare measures under study.

Research Methodology

Type of Research

Exploratory research approach is used, which investigates research questions that had not previously been studied in depth. Exploratory research is often qualitative and primary in nature, but in case of large samples, it can also be quantitative. In this study, exploratory research is used as the data collection in the manufacturing sector is quite challenging and sometimes, due to the security reasons within the plant or factory sites, information gathered is limited.

Data Collection

Primary data were mainly collected through a structured questionnaire. The questionnaire was framed in such a way which covers many of the variables of industrial relation climate, covering the personnel policies, labour welfare benefits and social security schemes. Some of the critical factors of industrial relation which are taken for study at the primary level are overall industrial climate, major causes of grievance and dissatisfaction among the employees, any reasons for industrial unrest in the present company and factors responsible for industrial fatigue, stress and strain. Nearly 200 sample respondents were surveyed, including both male and female employees from the zonal offices of the manufacturing plant which are in Kolkata and factory sites in Howrah, West Bengal, India. Mainly employees who are in the permanent payroll of the company are taken for the study. The employees surveyed include both technical and non-technical background, and all employees have preliminary reading and writing skills. Sometimes, questionnaires are also clarified with the help of their immediate supervisor if few of them fail to understand some questions in English. Out of 200 respondents, only 150 completed questionnaires were taken for the purpose of the study, as nearly 50 questionnaires were either incomplete or wrongly interpreted by the respondents.

Besides, secondary data are collected from the websites of these companies as well as from some company handbooks and official documents from HR department for getting the real information. Sometimes, interview schedules with open-ended questionnaires were taken, mainly for shop floor managers, supervisors or technical experts who were managing the production plant and monitoring the job scheduling of the workers to know their views regarding the overall industrial relation climate at their present workplace.

Sampling Frame

The sample was taken from two zonal offices of the manufacturing plant which are in Kolkata and factory sites in Howrah, West Bengal, India. The demographic profiles of the respondents that had been considered from our study were educational level, years of services in the present company and total working experience of the surveyed population in the manufacturing sector. Two large-sized manufacturing plants are engaged in synthetic industrial belts and polymer products, and another is in the manufacturing of spinning cans used in real estate construction work. Data collection was done during the period from June to September 2021. Some of the employees of the zonal office, plant level and some hardcore workers, those who were included in the muster roll or employee register of the permanent employee of the company, were taken as the sample of the study. Contractual workers of the plant were not considered. In those plants, there were some contractual workers, and those contract or casual labourers face many issues, unlike permanent employees, and they were also not provided with any benefits like medical insurance and provident funds. But most of these contractual workers were working less than 3 years, and they did not stay there for longer period of time and were mostly mobile. Contractual workers were mostly employed for a temporary period not directly by the company but by a principal contractor, so they are excluded from this study.

Employees were interviewed during their convenient time under COVID-19 restrictions, and most of them had knowledge of local vernacular and some were also proficient in understanding English language. Some of the shop floor workers may not understand English, so they were taken interviews in local vernacular with the help of their immediate supervisor or manager.

Sampling Type

Convenient sampling technique was applied in this case. In this study, convenient sampling method is used due to the scarcity of time and resources and COVID-19 restrictions and also for the ease of respondents according to their accessibility. Most of the employees under study were in different job schedules and highly engaged. To make data collection during their time of work is almost impossible. Employees were contacted with the help of their immediate supervisor at a suitable time and place according to their convenience so that they can get sufficient time to read, make clarification if necessary and fill up the response sheet. So, we have to make prior appointment with their respective departmental head or shop floor supervisor by contacting with the labour welfare officer of the plant.

Validity and Reliability of the Data Sets Used

Preliminary pilot testing was done on a sample of 30 respondents in order to reduce any such confusion regarding the various factors of industrial relations and labour welfare facilities. Some of the factors are also changed and modified after

the pilot testing and taking views and suggestion from some of the shop floor supervisors of the workers at the plant, and some of the improvements of the items are made are added or discarded accordingly.

Besides *Cronbach's alpha* coefficient confirms the internal consistency of the set of items of the structured questionnaire. The present data set for the study shows Cronbach's alpha value is equal to 0.939. In general, any value greater than 0.50 is desirable of the Cronbach's alpha. So, the data set is quite reliable and valid.

Data Analysis

From Table 1, it has been revealed that majority of the sample respondents, that is, 61% are graduate and maximum number of respondents are young less than 5 years of service in their present job profile among the surveyed sample. Only 46% of the employees were having total experience of less than 5 years. 38.7% of the sample population were having total job experience of more than 10 years. So, it can be inferred that majority of the sample respondents were young and <5 years of working experience in the present company.

From Table 2 and Figure 2, it can be seen that overall industrial relations climate is fair, as 45.3% of the sample remarked it as good and 27.3% of the sample remarked it as excellent.

From Table 2 and Figure 3, it is revealed that poor wage structure is the main cause of grievance and dissatisfaction among employees (56.7%), followed by inadequate working conditions (33.3%).

From Table 2 and Figure 4, poor personnel policies (43.3%) followed by lack of career advancement (31.3%) are major reasons for some of the incidences of industrial unrest in the present companies.

Table 1. Demographic Profile of the Respondents.

Demographic Variables	Frequency	%
Educational Qualification of the Respondents		
Under graduate	49	32.7
Graduate	61	40.7
Post graduate and other technical qualifications	40	26.7
Total	150	100
Length of Service in the Present Company		
0–5 years	92	61.4
6–10 years	14	9.3
>10 years	44	29.3
Total	150	100
Total Working Experience		
0–5 years	69	46.0
6–10 years	23	15.3
>10 years	58	38.7
Total	150	100

Table 2. Frequency and Percentage of Respondents for Some of the Critical Factors of Industrial Relations Climate.

Some Important Factors of IR	Excellent	Good	Average	Poor	Very Poor	Total Respondents
Overall industrial climate at workplace	41 (27.3%)	68 (45.3%)	32 (21.3%)	9 (6%)	0 (0%)	150 (100%)
Main causes of grievance and dissatisfaction among the employees	Poor wage structure	Inadequate working conditions	Personal biases and prejudice	Any other matter	Total respondents	
	85 (56.7%)	50 (33.3%)	12 (8%)	3 (2%)	150 (100%)	
Main reasons for industrial unrest in the present company	Poor working conditions	Bad relationships with peers and co-workers	Poor personnel policies	Lack of career advancement	Other reasons	Total respondents
	20 (13.3%)	15 (10%)	65 (43.3%)	47 (31.3%)	3 (2%)	150 (100%)
Factors responsible for industrial fatigue stress and strain	Excessive control by supervisors	Overburden of work	Job complexities	Improper work scheduling	Wrong allocation of job duties	Total respondents
	9 (6%)	38 (25.3%)	34 (22.7%)	47 (31.3%)	3 (2%)	150 (100%)

Note: IR, industrial relation.

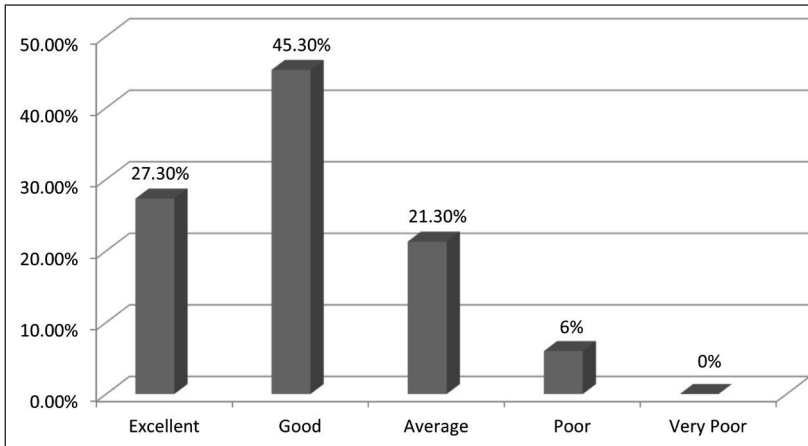


Figure 2. Overall Industrial Relation Climate.

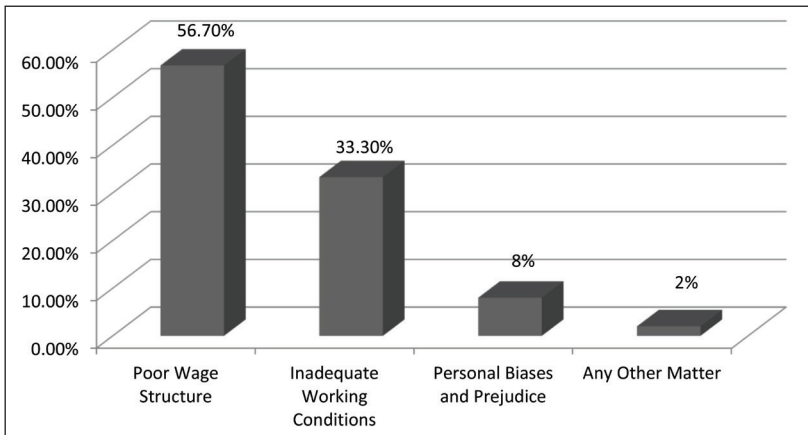


Figure 3. Main Causes of Grievance and Dissatisfaction Among Employees.

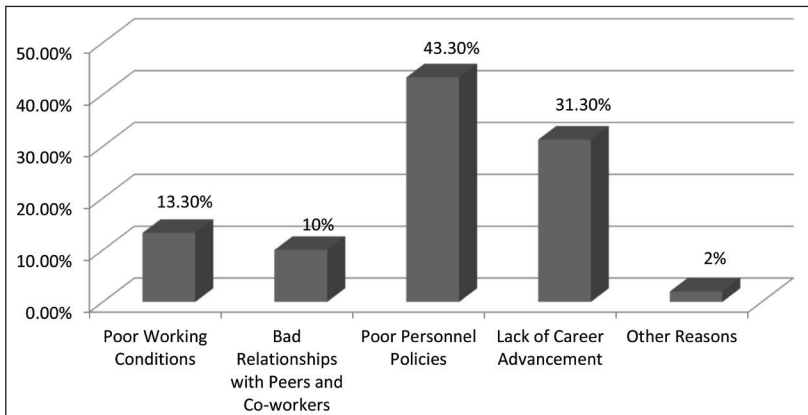


Figure 4. Main Reasons for Industrial Unrest in the Present Company.

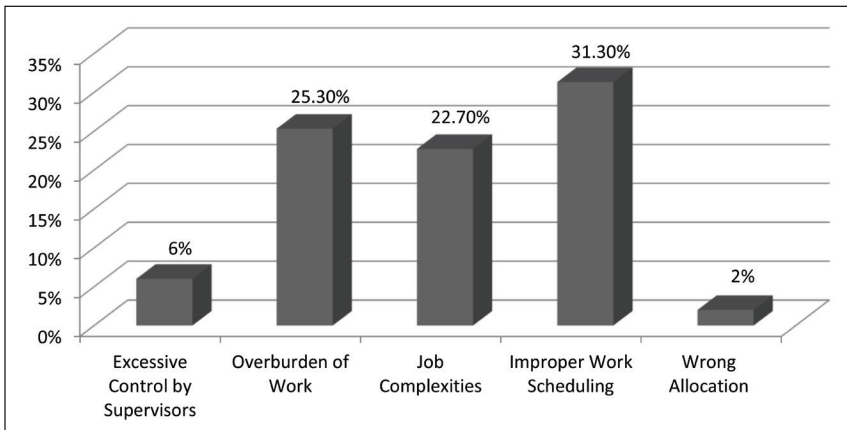


Figure 5. Factors Responsible for Industrial Fatigue.

From Table 2 and Figure 5, it was revealed that the major causes of industrial fatigue as pointed out in this sector mainly arises due to improper job scheduling (31.3%), overburden of work (25.3%) followed by job complexities (22.7%).

From Table 3 and Figure 6, there are problems regarding the issues of claim settlements regarding getting the proper gratuity benefits (mean value—2.81) as well as to some extent Employee State Insurance (ESI) benefits (mean value—3.51) rather than the other benefits.

Different variations of the welfare provisions clearly illustrate the differences in the nature of the state intervention and the distribution of the resources between rich and poor industrial workers. Most of the cases in manufacturing sector, wage earners are fully skilled, semi-skilled and unskilled labourer. In many cases, government loses its economic autonomy and fails to control the distribution of the resources. Here in this study, to investigate how far the general workers are getting major provisions of the welfare benefits, including legislative measures of health and safety at their workplace, we tested through structured questionnaire.

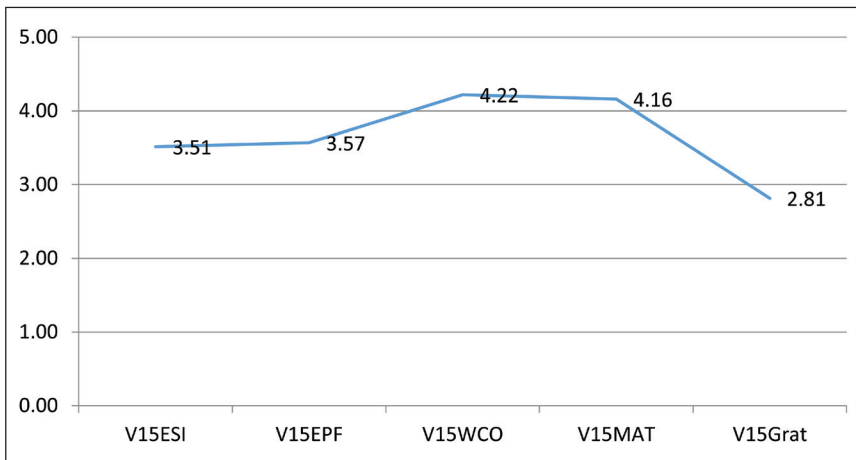
The questions regarding rating of the welfare benefits are compared in a 1–5 Likert scale where '1' means getting least benefits and '5' signifies getting highest benefits. About 16 types of welfare benefits were identified as per the provisions of the Factories Act 1948. These includes *medical, housing, travelling allowance, recreation facilities, education loan facilities for children of the employees, canteen facilities, creche facilities, sanitation, drinking water, seating arrangement, provision for first aid, proper seating arrangement, latrines/urinals, spittoons, lightening and ventilation, washing facilities and rest rooms.*

Factor analysis had been conducted on all the 16 factors of welfare benefits in order to decrease the number of variables and to identify few of the critical variables among the group for further study. In Table 4, the Kaiser–Meyer–Olkin (KMO) test was perform to establish whether the data set of 150 respondents of

Table 3. Mean Values and Standard Deviation Regarding the Process of Claim Settlement in a Scale of 1–5.

	ESI Benefit (V15ES)	Provident Fund Benefits (V15EPF)	Workman's Compensation Benefit (V15WCO)	Maternity Benefits (V15MAT)	Gratuity Benefits (V15Gra)
N Valid	150	150	150	150	150
Missing	0	0	0	0	0
Mean	3.51	3.56	4.22	4.16	2.81
Std. deviation	1.005	0.780	1.408	1.321	1.149

Note: 1 signifies very complex process and 5 signifies very simple process.

**Figure 6.** Mean Value Graph Showing Nature of the Process of Claim Settlement.**Table 4.** Kaiser–Meyer–Olkin (KMO) and Bartlett's Test.

Kaiser–Meyer–Olkin measure of sampling adequacy		0.540
Bartlett's test of sphericity	Approx. chi-square	1519.101
	df	120
	Sig.	0.000

employees in manufacturing unit would be suitable to run the test on factor analysis. For this data set, the KMO and Bartlett's test revealed that sampling adequacy is 0.540, which is >0.50 and the p value $<.05$. Here, degrees of freedom (df) is 120. So, we can run the factor analysis.

Principal component analysis (PCA) is conducted on the set of 16 variables of welfare benefits through dimensionality reduction technique. Table 6 shows that maximum variance explained is generated from smaller set of welfare benefit factors from a pool of 16 components. Each of the components explained certain

Table 5. Communalities.

Factors	Initial	Extraction
Vmedi	1.000	0.780
Vhousing	1.000	0.821
Vtravel	1.000	0.863
Vrecre	1.000	0.652
Veduchi	1.000	0.794
Vcanteen	1.000	0.821
Vreche	1.000	0.886
Vsanitation	1.000	0.623
Vdrink	1.000	0.799
Vseat	1.000	0.765
Vfirst-aid	1.000	0.763
Vlatrin	1.000	0.723
Vspitt	1.000	0.751
Vlight	1.000	0.790
Vwash	1.000	0.603
Vrest	1.000	0.708

Note: Extraction method: Principal component analysis.

percentage of total variance. The eigenvalues of components which are >1 in each case can be taken for further study, excluding the others. Here, in this case, the first five components—medical (Vmedi), housing (Vhousing), travelling allowance (Vtravel), recreational facilities (Vrecre) and education opportunities for children (Veduchi)—are extracted. All these five factors can explain 75.88% of variance in the data set. It is to be noted that eigenvalue in each of this component is >1 . Each of these variables is taken as one factor for further study.

The table for rotated component matrix, Table 8, helps us to determine what the component represents. Here, rotated component matrix generates 5 factors from 16 variables.

Figure 7 shows that the first five factors that we will be taking for further study are showing eigenvalue >1 .

The first five variables extracted from factor analysis are medical, housing, travelling allowance, recreational facilities and educational loan facilities for children are clubbed and computed again as a new variable as *VWelfare 1*.

Questions related to nature of the claim settlement under five important labour legislations of social welfare like ESI Benefit Act 1948, Employees Provident Fund and Misc. Provision Act 1952, Workman's Compensation Act, Maternity Benefit Act 1961 and Payment of Gratuity Act 1972 were asked. Responses were measured in a scale of 1–5 where 1 denotes very complex process of claim settlement and 5 represents very simple process of claim settlement. A new variable, *Vclaim*, was computed based on five above-mentioned variables of labour legislation.

Table 6. Total Variance Explained.

Component	Initial Eigenvalues		Extraction Sums of Squared Loadings		Rotation Sums of Squared Loadings	
	Total	% of Variance	Total	% of Variance	Total	Cumulative %
1	4.496	28.101	4.496	28.101	3.442	21.515
2	3.003	18.766	3.003	18.766	3.231	41.707
3	2.100	13.126	2.100	13.126	2.327	56.253
4	1.365	8.534	1.365	8.534	1.690	66.819
5	1.178	7.361	1.178	7.361	1.451	75.888
6	0.801	5.008				
7	0.611	3.820				
8	0.562	3.513				
9	0.400	2.498				
10	0.348	2.174				
11	0.328	2.047				
12	0.277	1.732				
13	0.247	1.546				
14	0.156	0.974				
15	0.076	0.477				
16	0.052	0.322				

Table 7. Component Matrix.^a

	Component				
	1	2	3	4	5
Vmedi	0.780	-0.357	0.003	0.057	0.203
Vhousing	0.739	-0.444	0.096	0.015	0.262
Vtravel	0.605	-0.517	0.413	-0.159	0.184
Vrecre	0.485	-0.254	0.473	-0.276	0.229
Veduchi	0.538	-0.173	0.419	0.009	-0.547
Vcanteen	-0.332	-0.018	0.650	0.528	0.095
Vcreche	0.351	0.155	-0.038	0.848	0.130
Vsanitation	0.480	0.583	0.145	0.160	-0.074
Vdrink	0.630	0.445	-0.420	0.086	0.143
Vseat	0.497	0.592	-0.231	-0.267	0.208
Vfirst-aid	0.580	0.225	-0.160	0.152	-0.572
Vlatrin	0.617	0.550	0.121	0.049	0.152
Vspitt	-0.506	0.583	0.355	-0.168	-0.008
Vlight	-0.328	0.630	0.331	-0.017	0.419
Vwash	0.510	0.470	0.071	-0.310	-0.141
Vrest	0.041	0.302	0.752	-0.085	-0.205

Note: Extraction method: Principal component analysis. Five components are extracted.

Table 8. Rotated Component Matrix.^a

	Component				
	1	2	3	4	5
Vmedi	0.224	0.760	-0.303	0.158	0.189
Vhousing	0.132	0.842	0.248	0.102	0.149
Vtravel	-0.042	0.916	0.044	0.137	-0.045
Vrecre	0.095	0.755	0.225	0.014	-0.148
Veduchi	0.049	0.409	0.232	0.755	0.005
Vcanteen	-0.415	0.003	0.622	-0.103	0.502
Vcreche	0.205	0.052	-0.074	0.085	0.910
Vsanitation	0.660	0.010	0.262	0.215	0.269
Vdrink	0.794	0.048	-0.338	0.037	0.225
Vseat	0.857	0.032	-0.078	-0.111	-0.108
Vfirst-aid	0.450	-0.030	-0.143	0.719	0.150
Vlatrin	0.771	0.203	0.192	0.051	0.220
Vspitt	0.087	-0.477	0.651	-0.239	-0.186
Vlight	0.264	-0.267	0.585	-0.551	0.066
Vwash	0.681	0.106	0.163	0.244	-0.204
Vrest	0.097	0.099	0.798	0.220	-0.055

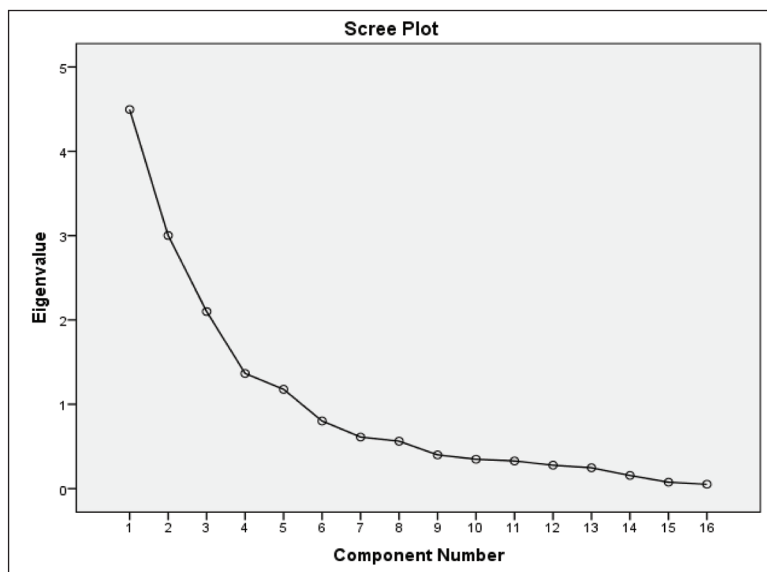
Notes: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalisation.

^aRotation converged in seven iterations.

Table 9. Component Transformation Matrix.

Component	1	2	3	4	5
1	0.607	0.649	-0.197	0.381	0.160
2	0.742	-0.529	0.390	-0.110	0.075
3	-0.187	0.390	0.897	0.080	0.044
4	-0.173	-0.148	-0.029	0.105	0.968
5	0.128	0.354	-0.055	-0.908	0.174

Note: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalisation.

**Figure 7.** Scree Plot.**Table 10.** Computed Variables.

1. Vmedi	VwelfareI
2. Vhousing	
3. Vtravel	
4. Vrecre	
5. Veduchi	
Claim under	
1. ESI Act 1948	Vclaim
2. EPF and Misc Provision Act 1952	
3. Workman's Compensation Act 1923	
4. Maternity Benefit Act 1961	
5. Payment of Gratuity Act 1972	

One-way Analysis of Variance (ANOVA) Testing

One-way ANOVA was conducted to find out the nature of the variances of the demographic profile of the respondents, like *educational level of the respondents, total service period in the present company and total job experience of the respondents in the manufacturing sector*, with three factors below:

- (a) *Industrial relation climate (V6)*, (b) *availability of welfare benefits (Vwelfare1)* and (c) *ease of claim settlement under the above five labour legislation in their company (Vclaim)*.

The null and alternative hypotheses are framed as follows:

Null Hypothesis

H_0 : There are no such impacts of industrial relation climate, welfare benefits or getting claim under the welfare labour legislation with the educational background of the respondents in the surveyed population.

Alternative Hypothesis

H_1 : Perception of industrial relation climate, welfare benefits and claim settlement varies across different educational background of the respondents.

Here we see that (Table 11) in each case p value $< .05$. So, null hypothesis is rejected, and alternative hypothesis is accepted. So, employees' perception about industrial relations climate, getting welfare benefits and claim settlement vary across different educational level of the respondents. Probably, more educated employees are more aware about all these three factors.

Table 11. One-way ANOVA—(Variation With the Educational Level of the Respondents).

		Sum of Squares	df	Mean Square	F	Sig.
V6	Between groups	27.780	2	13.890	25.308	0.000
	Within groups	80.680	147	0.549		
	Total	108.460	149			
Vclaim	Between groups	4.069	2	2.034	3.506	0.033
	Within groups	85.283	147	0.580		
	Total	89.352	149			
VWelfare1	Between groups	27.559	2	13.779	21.377	0.000
	Within groups	94.753	147	0.645		
	Total	122.312	149			

Null Hypothesis

H_0 : There are no such variations in the perception of industrial relation climate, welfare benefits or getting claim as per statutory provisions varies across the total service periods of the respondents in their present company.

Alternative Hypothesis

H_1 : Perception of industrial relation climate, getting welfare benefits and getting benefit under statutory provisions varies across total service periods of the respondents in the present company.

Here we see that (Table 12) in each case p value $< .05$. So, null hypothesis is rejected, and alternative hypothesis is accepted. So, employees' perception on industrial relation climate, welfare benefit and getting benefit under different labour legislation vary with the total service periods of the respondents in the present company.

Null Hypothesis

H_0 : There are no such variations of the perception of industrial relation climate, welfare benefits or claim settlement under the various labour legislations with the total job experience level of the respondents in the manufacturing sector.

Alternative Hypothesis

H_1 : Perception of industrial relation, welfare benefit and getting benefit under different labour legislation varies with the total job experience level of the respondents in the manufacturing sector.

Table 12. One-way ANOVA—(Variation With the Total Service Period of the Respondents in the Present Company).

		Sum of Squares	df	Mean Square	F	Sig.
V6	Between groups	29.750	2	14.875	27.781	0.000
	Within groups	78.710	147	0.535		
	Total	108.460	149			
Vclaim	Between groups	9.308	2	4.654	8.547	0.000
	Within groups	80.044	147	0.545		
	Total	89.352	149			
VWelfare I	Between groups	19.727	2	9.863	14.134	0.000
	Within groups	102.585	147	0.698		
	Total	122.312	149			

Table 13. One-way ANOVA—(Variation With the Total Years of Job Experience in the Manufacturing Sector).

		Sum of Squares	df	Mean Square	F	Sig.
V6	Between groups	5.174	2	2.587	3.682	0.028
	Within groups	103.286	147	0.703		
	Total	108.460	149			
Vclaim	Between groups	11.184	2	5.592	10.516	0.000
	Within groups	78.168	147	0.532		
	Total	89.352	149			
VWelfareI	Between groups	1.928	2	0.964	1.177	0.311
	Within groups	120.383	147	0.819		
	Total	122.312	149			

Here we see that (Table 13) in the first two variables p value $<.05$. So, null hypothesis is rejected, and alternative hypothesis is accepted.

But for the variable welfare benefit, p value $>.05$, so null hypothesis is not rejected. Getting different welfare benefits does not vary with the total experience level of the respondents in this sector so far.

Correlation Analysis

Pearson bi-variate correlation analysis was carried out between the above three variables: (a) Industrial relation climate ($V6$), (b) welfare benefits ($VwelfareI$) and (c) ease of claim settlement under the above five labour legislation in their company ($Vclaim$).

Null Hypothesis

H_0 : There is no such relationship between industrial relation climate and availability of welfare benefits.

Alternative Hypothesis

H_1 : Relationship exists between industrial relation climate and availability of welfare benefit for workers.

Table 14—correlation matrix shows that industrial relation climate ($V6$) is showing significant negative correlation at 0.01 levels with welfare benefit ($VwelfareI$) and vice versa. Since perception of employee relation climate is compared in the Likert scale in a reverse order in the questionnaire, where 1 denotes excellent industrial relation climate and 5 denotes very poor industrial relation climate, and availability of welfare benefits increases from 1 (least benefit) to 5 (highest benefit) in the scale. So, null hypothesis is rejected, and alternative hypothesis is substantiated.

Table 14. Correlations Analysis.

		V6	Vclaim	VWelfare I
V6	Pearson correlation	1	-0.007	-0.518**
	Sig. (2-tailed)		0.932	0.000
	N	150	150	150
Vclaim	Pearson correlation	-0.007	1	-0.286**
	Sig. (2-tailed)	0.932		0.000
	N	150	150	150
VWelfare I	Pearson correlation	-0.518**	-0.286**	1
	Sig. (2-tailed)	0.000	0.000	
	N	150	150	150

Note: **Correlation is significant at the 0.01 level (2-tailed).

So, it can be inferred that there exists the relationship between industrial relations climate and availability of welfare benefits in the present study.

Null Hypothesis

H_0 : There is no such relationship between claim settlement and availability of welfare benefits.

Alternative Hypothesis

H_1 : Relationship exists between claim settlement and availability of welfare benefit for workers.

Table 14—similarly, nature of claim settlement is showing significant negative correlation at 0.01 level with availability of welfare benefits. Procedure of claim settlement is compared in an inverse way in the questionnaire, where 1 signifies very complex process and 5 signifies very simple process of claim settlement. So, negative correlation is substantiated. Null hypothesis is rejected, and alternative hypothesis is accepted. So, there exists a relationship between claim settlement of welfare benefits under various labour legislation and welfare benefits.

Null Hypothesis

H_0 : There are no such relationships between industrial relation climate and claim settlement.

Alternative Hypothesis

H_1 : Relationship exists between industrial relation climate and claim settlement for the workers.

Here, no significant correlation is noticed (p value $>.05$). So, the null hypothesis is substantiated.

From the above bivariate correlational matrix, it can be concluded that workers are quite aware of the welfare measures available to them, and unavailability in turn may lead to large-scale job dissatisfaction, industrial fatigue and industrial unrest. But the factor regarding the process of getting claims under various labour legislations do not have a direct impact on industrial relation climate in the present study.

Findings

From the data analysis and frequency distribution (Table 2) of some of the critical factors of employee relation climate in the manufacturing sector, it was revealed that only 45.3% of the sample depicted that the industrial relation climate at workplace is good. 56.7% of the sample indicated that poor wage structure can be one of the major causes of grievance and job dissatisfaction among the employees and another 33.3% had explained that inadequate working conditions can also be one such major factor. Very small percentage of the sample had indicated about personal biases, prejudice and other reasons. Improper job scheduling (31.3% of the respondents), overburden of work (25.3%) and job complexities (22.7%) can be some of the causes of industrial fatigue among the workers. The process of getting benefits under the various labour legislation is also not smooth, especially as employees face lot of problems while claiming different benefits under the Gratuity Act and ESI Act. While taking open-ended interviews, the supervisors, who preferred to remain anonymous, often complained about long-drawn process of claim settlement due to inadequate data and clarification on the part of the companies. General employees need to understand the whole process. Sometimes, due to their ignorance of not having adequate technical skill or computer proficiency to handle the online mode of claim settlement, the system was disrupted. In some cases, there were few incidences where employer denying gratuity to few workers by showing different grounds, but employees were not getting any support due to lack of trade union or inadequate knowledge and education to go to the court or state labour commissioners' office with their cases.

From the factor analysis on the availability of different welfare benefits, we have considered only the first *five factors, that is, medical benefits, housing, travelling allowance, recreation facilities and education for children* from the 16 variables, which are only computed as the major welfare factors to be considered for the study, discarding the others as their eigenvalues >1 (Table 6). From the one-way ANOVA testing (Tables 11, 12 and 13), it was revealed that overall industrial relation climate and getting benefits under different social security legislation varies with the educational level, total tenure of the employees in the present company and total years of working experience in the manufacturing sector. Though getting adequate welfare benefits varies with the different educational background and total years of service in the present company, but it does not vary with level of total experience of the sample in the manufacturing

industry. Pearson correlation study (Table 14) established one of the major objectives of the study that the industrial workers and white-collar employees in the surveyed population are aware of their rights and privileges of getting the social security measures under different social security schemes of Government of India. Significant correlation exists between the industrial relation climate and availability of welfare measures at the plant level. But in case of the variable representing industrial relation climate (*V6*) and getting benefits under social security labour legislation (*Vclaim*), no such significant correlation is noticed in the surveyed population. But different benefits under labour legislation showed significant correlation with general welfare measures of the workers in the factory.

Conclusions

Top management should constantly review the industrial relation climate and go for regular HR audit on a priority basis to find out the causes of rampant absenteeism, industrial fatigue and discontentment of the workers regarding their poor pay packages, bonus, incentives and the way to revive those. Full employee engagement programme with proper identification of training needs should be the topmost priority to reduce redundancy and industrial fatigue among the workers. Recruitment of labour welfare officer, especially in a manufacturing plant employing 500 or more workers who is qualified to handle labour-related problems is urgent for such manufacturing plant. Regular redresses of the employee grievances by forming an employee redressal cell is also required. Formulation and implementation of the welfare policies by interpreting these policies to the general workers should be the top priority of this welfare officer. If needed, outside trainer or person from legal background should be employed to train employees and make them aware about various welfare measures and how to get their legitimate claim under various labour laws which are applicable at their workplace. Company should also give priority to technical training so that employee can handle the online system of claim settlement on their own without much effort. Apart from the structured questionnaire survey, some of the employees are personally interviewed, where they revealed that they expect proper extrinsic reward in the forms of bonus or profit sharing or adequate individual incentives. So, in this manufacturing sector, proper reward management programme linking with employee performance scheme need to be implemented in order to reduce discontentment and employee absenteeism and for better industrial relation climate.

So, in this study, an attempt has been made to reflect the problem of growing attrition of employees in the manufacturing sector, and in general, there is still lack of education, training and awareness level on the part of the employees. The study thus reflects that many of them are also not sure about the different welfare benefits that they are entitled to get. On the other hand, this research also establishes the fact that the more an employee are having education level and rich industry experience in this sector, the more they are conscious about their rights and privileges that are entitled to. Lack of trade union to fight for their causes and

discontentment are also indirectly established from this study. Lack of trade union sometimes can be deteriorating on the perspectives of the employee or worker in the manufacturing sector rather than the employer's side. Trade union complying with a more constructive and proactive role and constant coordination with management or labour officer is also the need of the hour in the manufacturing sector today in India. So, by 2030 if India wants to become the manufacturing hub in the global market, then there is a need to revamp the industrial relation climate along with employee training and engagement programme effectively.

Limitation and Scope of Future Study

Due to the COVID-19 pandemic situation, the scope of study is only limited to two such manufacturing units, and if comparison can be made on basis of gender, then different result can be obtained. However, this study can also be linked with the attrition level of the workers to get a more vivid picture of employee dissatisfaction and grievances. There were some contractual workers apart from the general workers in the two plants who are generally working for short-term periods and less than 3 years. They are not included in the muster roll of the companies but are appointed by third party or a principal contractor. Our investigation revealed that discontentment was also there among the contractual workers due to dishonesty of some principal contractor. Their problems need to be addressed also in order to maintain happy industrial relations and problem of the contractual worker in the manufacturing sector which can be another scope of future study.

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