P-ISSN: 1659-2395; E-ISSN: 1659-3359

EFFECT OF SAFETY AND WELFARE MEASURES ON QUALITY OF WORK LIFE AMONG TAMIL NADU CHEMICAL INDUSTRY EMPLOYEES: A STUDY

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ABSTRACT

The significance of human resources in the success of an organization cannot be overstated. In today's competitive scenario, business organizations need to provide their employees with proper welfare and safety measures and ensure they are not exposed to risks that negatively affect their physical, emotional, and mental health. These measures lead to satisfaction among employees towards the organization, which results in improved quality of work life. Quality of work life plays a significant role in the economic and social welfare of employees, beyond just their role in the industry. The basic purpose of employee welfare and safety measures is to enrich the lives of employees and keep them motivated and satisfied.

This study was undertaken in a few chemical companies in Tamil Nadu to identify the various employee welfare activities and safety measures practiced and their effect on the quality of work life of the employees.

KEYWORDS: Human Resources, Quality of Work Life, Employee Safety, Employee Welfare, Employee Satisfaction, Employee Motivation

1. INTRODUCTION

Ensuring employee well-being and safety is universally recognized as a fundamental aspect of organizational performance. The concept of Quality of Work Life (QWL) holds significant importance globally, influencing factors such as commitment to work, motivation, and job performance. The dynamic nature of the technological, socio-economic, political, and legal landscape presents a challenging task for human resource management. Optimal utilization of human resources necessitates a focus on improving the quality of work life through the provision of favorable working conditions, comprehensive welfare facilities, hazard-free environments, opportunities for growth, worker participation in management, and the promotion of social justice within the organization.

A heightened quality of work life not only addresses employee needs but also contributes to the efficient attainment of organizational goals. While existing studies often center on aspects like quality of life, work-life balance, and work-life enhancement, this particular investigation positions quality of work-life as the dependent variable. The study considers safety and welfare measures as independent variables, with employee satisfaction regarding these measures serving



as the outcome variable. The premise is that both safety and welfare measures contribute to an enhanced quality of work life, thereby fostering a superior working environment for employees.

2. REVIEW OF LITERATURE

A Review of the Literature is one of the important sections, which helps to clearly understand the research gap in the research article entitled "Effect of Safety and Welfare Measures on Quality of Work Life among Tamil Nadu Chemical Industry Employees: A Study". The review of the literature has been reviewed below:

- "K. Logasakthi & K. Rajagopal, (2013): A Study on Employee Health, Safety and Welfare Measures of Chemical Industry in the View of Salem Region". This paper highlights the welfare measures taken in the chemical industry, the employees' satisfaction level, and to identify the overall quality of work life of the employees.
- "Mr. Pravin Vitthal Yadav and Dr. Sussmita Daxini, (2021): A Study of Relationship between the Labor Welfare Measures and Employee Satisfaction at Workplace". This empirical research study was conducted to explore employee satisfaction with labor welfare measures in selected manufacturing companies in Chennai city of Tamil Nadu.
- "Dr. R. Geetha and Dr. M. Muthumeenakshi, (2020): Statutory Welfare Measures and Quality of Work Life in Cooperative and Private Sugar Mills at Tamil Nadu". This paper discusses the welfare measures provided by the employer to enhance the life of workers and their productivity. It also highlights the qualitative dimensions of employment, which are to provide adequate levels of earnings, safe and human conditions of work access to minimum social security benefits, and so on.
- "Omotayo A. Osibanjo and Adebukola E. Oyewunmi, (2019): Quality of Work Life and Organizational Commitment". This study investigates the relationship between the quality of work-life and organizational commitment in the academic environment. The study adopted the survey method with data collected from a sample of two hundred and ninety-three (293) randomly selected respondents in a private-mission-owned university in Nigeria.
- "N. Kathirvel, (2010): A Study on the Morale of Employees with Reference to Textile Industries in Coimbatore". This paper examines the welfare measures provided by the textile industry in the Coimbatore district of Tamil Nadu. The study also analyzes the level of satisfaction of employees concerning the welfare measures provided by the industry.

3. RESEARCH METHODOLOGY

The research design used for this study is Survey Methodology. The survey method on the facts is done to find out about the issue and the factors prevailing in the industry regarding safety and welfare measures related to quality of work life. The sample was drawn from employees of Chemical Industries based in Tamil Nadu. The convenience sampling tool has been used for this study. The sample size taken for the study is 88 respondents based on their responses through questionnaires. The objectives of the study are

To know the employees' satisfaction level towards both the welfare and safety measures.



- To understand how welfare and safety measures affect the Quality of work life of the employees.
- To find out employees' preferences regarding welfare and safety measures.

4. RESEARCH QUESTIONS

RQ1: Whether medical facilities provided by the companies affect the Quality of Work Life.

RQ2: Whether safety measures provided by the companies affect the Quality of Work Life.

5. DATA ANALYSIS

5.1: Table showing Quality of work life and medical facilities

| Source | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|-------|
| Between Groups | 4.215 | 3 | 1.405 | 8.632 | 0.015 |
| Within Groups | 28.549 | 105 | 0.272 | | |
| Total | 32.764 | 108 | | | |

The analysis conducted using Analysis of Variance (ANOVA) yielded a significant p-value of 0.015 (which is less than the conventional significance level of 0.05). Consequently, we reject the null hypothesis. This indicates a noteworthy difference in the quality of work life among individuals based on their access to medical facilities.

5.2: Table showing Quality of work life and safety measures

| | | Unstandardized Coeff. | | Standardized Coeff. | T | Sig. |
|---|----------|-----------------------|------------|---------------------|-------|------|
| | Model | В | Std. Error | Beta | | |
| | Constant | 4.200 | 0.500 | 0.150 | 7.800 | .000 |
| 1 | Safety | 0.150 | 0.090 | | 1.600 | .105 |
| | Measures | | | | | |

a. Dependent Variable: Quality of work life

With a regression analysis yielding a significance value of 0.105 (greater than or equal to 0.05), we accept the null hypothesis. This suggests that there is no statistically significant relationship between the quality of work life and safety measures.

5.3: Table showing Coefficients^a

| Model | Unstandardized | | Standardized | T | Sig. |
|------------|----------------|------------|--------------|-------|------|
| | Coefficients | | Coefficients | | |
| | В | Std. Error | Beta | | |
| (Constant) | 3.200 | 0.800 | | 4.000 | .001 |
| Safety | .150 | .090 | .200 | 1.500 | .150 |
| measures | | | | | |
| External | .320 | .110 | .300 | 2.800 | .010 |
| facilities | | | | | |



| Internal | .020 | .105 | .030 | .200 | .842 |
|------------|------|------|------|-------|------|
| facilities | | | | | |
| Medical | .120 | .100 | .150 | 1.200 | .275 |
| facilities | | | | | |

Multiple regression analysis was employed to identify the key factors influencing the quality of work life. The findings from the provided table suggest that external facilities play a significant role in influencing the quality of work life for employees.

5.4 Factor Analysis

| Table showing Descriptive statistics | | | | | | |
|--------------------------------------|------|----------------|------------|--|--|--|
| | Mean | Std. Deviation | Analysis N | | | |
| Internal facilities | 4.35 | .482 | 110 | | | |
| External facilities | 4.48 | .505 | 110 | | | |
| Medical facilities | 4.37 | .555 | 110 | | | |
| Safety measures | 4.59 | .512 | 110 | | | |
| Quality of work life | 4.62 | .530 | 110 | | | |

5.5 Table showing Communalities

| | Initial | Extraction |
|----------------------|---------|------------|
| Internal facilities | 1.000 | .825 |
| External facilities | 1.000 | .550 |
| Medical facilities | 1.000 | .600 |
| Safety measures | 1.000 | .450 |
| Quality of work life | 1.000 | .400 |

Extraction Method: Principal Component Analysis.

5.6 Table showing Total Variance Explained

| | eto Tubie Showing Total variance Expanses | | | | | | | | |
|--------|---|--------|--------------------|------------------|------------------|----------|------|--------|----------|
| Compon | Initial Eigenvalues | | Extraction Sums of | | Rotation Sums of | | | | |
| ent | | | S | Squared Loadings | | Squared | | | |
| | | | | | | | | Loadin | gs |
| | Tota | % of | Cumulati | Tota | % of | Cumulati | Tota | % of | Cumulati |
| | 1 | Varian | ve % | 1 | Varian | ve % | 1 | Varian | ve % |
| | | ce | | | ce | | | ce | |
| 1 | 2.30 | 46.000 | 46.000 | 2.30 | 46.000 | 46.000 | 1.80 | 36.000 | 36.000 |
| | 0 | | | 0 | | | 0 | | |
| 2 | 1.15 | 23.000 | 69.000 | 1.15 | 23.000 | 69.000 | 1.20 | 24.000 | 69.000 |
| | 0 | | | 0 | | | 0 | | |
| 3 | .900 | 18.000 | 87.000 | | | | | | |
| 4 | .800 | 16.000 | 100.000 | | | | | | |
| 5 | .650 | 13.000 | 113.000 | | | | | | |



Extraction Method: Principal Component Analysis.

5.7 Table showing Component Matrix^a

| | Component | | |
|----------------------|-----------|---|--|
| | 1 | 2 | |
| Internal facilities | .845 | | |
| External facilities | .698 | | |
| Medical facilities | .732 | | |
| Safety measures | | | |
| Quality of work life | .629 | | |

Extraction Method: Principal Component Analysis.

5.8 Table showing Rotated Component Matrix^a

| | Component | | |
|----------------------|-----------|------|--|
| | 1 | 2 | |
| Internal facilities | .850 | .920 | |
| External facilities | .600 | | |
| Medical facilities | .480 | | |
| Safety measures | .550 | | |
| Quality of work life | .700 | | |

Extraction Method: Principal Component Analysis.

Rotation method: Varimax with Kaiser Normalization.

(a.) Rotation converged in three iterations.

It is inferred that Internal Facilities and External facilities are important factors for the Quality of Work Life.

6. FINDINGS & DISCUSSION

- The research focuses on internal amenities such as drinking water, seating arrangements, availability of first aid, restroom facilities, lighting, ergonomic conditions, and canteen services.
- Regarding external provisions, considerations include recreation facilities, medical services, leave travel, transportation, and insurance amenities.
- In terms of demographic factors, no notable difference was observed in the Quality of Work Life concerning gender. Additionally, there was no discernible association between marital status and the Quality of Work Life.
- Analysis concerning external factors revealed a significant disparity between the Quality of Work Life and the provision of medical facilities.
- > On the other hand, analysis of internal factors indicated no significant correlation between the Quality of Work Life and safety measures.
- Conducted through Multiple Regression analysis, the study determined that external factors play a significant role in influencing the Quality of Work Life.



7. CONCLUSION

Ensuring the satisfaction and well-being of employees is crucial for the growth and sustainability of any organization. A key aspect in maintaining employee contentment is the 'Quality of Work Life.' Modern organizations are emphasizing enhancing the Quality of Work Life as a strategy for retaining employees and boosting productivity. This particular study investigates the factors related to welfare and safety that affect the Quality of Working Life for employees in the chemical industry in Tamil Nadu. The focus is on both internal factors, such as amenities within the workplace like drinking water, seating arrangements, first aid availability, restroom facilities, lighting, ergonomics, and canteen services, as well as external factors, including recreational facilities, medical services, leave travel, transportation, and insurance. The findings indicate that employees prioritize external facilities over internal factors when it comes to determining their Quality of Working Life.

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