PERCEPTION OF COOKWARE INDUSTRY EMPLOYEES REGARDING HEALTH, WELFARE, AND SAFETY MEASURES IN TIRUNELVELI

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ABSTRACT

The research study titled "Perception of Cookware Industry Employees Regarding Health, Welfare and Safety Measures in Tirunelveli" investigated the Perception of Cookware Industry Employees in this region. The sample for the study consisted of 184 respondents, and the research employed a descriptive research design. Data was collected through a structured questionnaire, and a simple random sampling technique was used to select the sample size. Primary Data have been gathered through questionnaires administered to the respondents. Secondary Data have been collected from the various websites. The collected data were tabulated and analysed using two statistical tools. Kruskal-Wallis Test was used for analysing variance among different groups and Factor Analysis was applied to reduce the 40 variables in the data into 4 key factors.

Through factor analysis, the study identified four significant factors that influence employees' satisfaction towards the Health, Welfare and Safety Measures. The key factors are Occupational Health, Care Secure Measures, Health Guard Strategies and Safe Zone Strategies. These factors were found to have a significant impact on employees' level of satisfaction with the Health, Welfare and Safety Measures and its implications for workplace safety and well-being. Based on the employees' opinion the study provided several key recommendations to improve employee satisfaction. These recommendations aim at enhancing the implementation of the Factory Act's provisions, especially in the areas of occupational health, safety measures, and overall workplace security. This research contributes valuable insights into how employees perceive about the Health, Welfare and Safety Measures in the context of their working conditions in Tirunelveli and suggested actionable measures for improving their satisfaction levels.

Keywords: Health, Welfare, Safety, Working Conditions and Satisfaction Level

INTRODUCTION

Health, welfare, and safety measures in the workplace are fundamental aspects of ensuring the well-being of employees and creating a productive, secure environment. These measures are designed to protect employees from hazards, improve their quality of life at work, and maintain their physical and mental health. The concept of workplace health and safety has gained increasing importance in industries worldwide, with governments and organizations implementing laws and standards to safeguard workers.

In the context of factories and industries, including sectors like cookware manufacturing, health, welfare, and safety measures encompass a broad range of policies and practices. Health measures focus on the prevention of work-related illnesses and the promotion of general well-being, which can include ergonomic practices, regular health screenings, and access to medical facilities. Welfare measures aim to improve the quality of life of employees, offering facilities such as clean restrooms, meal breaks, recreational areas, and other benefits that ensure employees' mental and emotional comfort at work. Safety measures are designed to prevent accidents and injuries in the workplace, addressing risks such as machinery malfunctions, hazardous materials, fire safety, and employee training on emergency procedures.

The Factories Act, 1948 in India, for example, is a key piece of legislation that mandates various health, welfare, and safety measures in industrial workplaces. It sets standards for ventilation, cleanliness, lighting, medical facilities, and the safe operation of machinery, ensuring that employers provide a safe and healthy working environment for their employees. Implementing these measures not only complies with legal requirements but also leads to increased employee satisfaction, reduced absenteeism, and improved productivity. By fostering a safe and healthy workplace, companies demonstrate their commitment to employees' well-being, which in turn enhances their reputation and long-term success.

REVIEW OF LITERATURE

Smith, J. (2023), in his project entitled "Innovations in Workplace Safety: A Comprehensive Review" explores the influence of psychological factors on occupational safety. It examines the role of individual characteristics, attitudes, and behaviours in promoting or hindering safety in the workplace. The review also discusses organizational factors and interventions that can enhance employee safety perceptions and compliance with safety practices.

Roberts, E. A., Wilson, J. M. (2023), in his project entitled "Employee Welfare and Organizational Performance: A Systematic Literature Review" investigated the relationship between employee welfare and organizational performance. The study explores the effects of welfare programs, work- life balance initiatives, and employee support on organizational outcomes such as productivity, profitability, and employee retention. The findings highlight the positive association between employee welfare and organizational performance.

Thompson, A. M., Davis, R. L. (2022), in his project entitled "Employee Welfare Programs and Organizational Outcomes: A Literature Review" explored the impact of employee welfare programs on organizational outcomes. The review examines various types of welfare programs, such as wellness initiatives, work-life balance policies, and employee assistance programs. It synthesizes findings on the effects of these programs on employee engagement, productivity, and overall organizational performance.

Carter, M. A., Johnson, S. T. (2022), in his project entitled "Employee Welfare and Job Satisfaction: A Meta-analysis", examined the relationship between employee welfare and job satisfaction. The analysis integrates findings from multiple studies to provide a comprehensive understanding of the impact of welfare programs, benefits, and supportive practices on employees' satisfaction levels. The results highlight the positive association between employee welfare and job satisfaction, emphasizing the importance of investing in employee well-being.

Adams, R. L., Thompson, L. M. (2022), this systematic review examined the impact of employee wellness programs on healthcare costs. The review analyses various types of wellness programs, such as preventive screenings, fitness incentives, and disease management

initiatives. It synthesizes findings on the cost-effectiveness of these programs in reducing healthcare utilization, medical expenses, and absenteeism.

RESEARCH METHODOLOGY

The size of the sample chosen for the study is 184. Simple random sampling method has been adopted for selecting the sample size. Primary data are collected from the sample through questionnaire method. The structured questionnaire was used for data collection. The tool used for the analysis of collected data are Kruskal-Wallis Test and Factor Analysis.

OBJECTIVE

The objective of this study is to find the level of satisfaction of Cookware Industry Employees regarding Health, Welfare and Safety Measures in Tirunelveli.

NULL HYPOTHESIS

There is no significant difference between the marital status and Perception of Cookware Industry Employees regarding Health, Welfare and Safety Measures in Tirunelveli.

ANALYSIS AND RESULTS

TABLE 1

RESULT OF KRUSKAL-WALLISTEST

Test Statistics [a, b]	
	Employees Perception
Kruskal-Wallis H	1.897
Df	1
Asymp.Sig.	0.168
a. Kruskal-Wallis Test	
b. Grouping Variable: Marital status	

Calculated significant value = 0.168, Level of Significance = 0.05

Level of Significance < Calculated significant value

So, we accept the null hypothesis

SATISFACTION TOWARDS HEALTH, SAFETY AND WELFARE OF EMPLOYEES

Reliability Analysis

The Instrument is reliable since the Cronbach's Alpha is more than 0.958 which is at the acceptable level of reliability of the scaled items. The universal standard followed in the research is, if the Cronbach's Alpha is more than 0.7 which is highly reliable scale.

TABLE 2

RELIABILITY STATISTICS

Cronbach's Alpha	No. of Items
0.958	40

Table Significance & Sampling Adequacy

TABLE 3

KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.928
Bartlett's Test of Sphericity	Approx. Chi-Square	4158.930
	Df	780
	Sig.	.000

KMO measure of sampling adequacy should be more than 0.6 and closer to 1. KMO

measure of Sampling Adequacy is 0.928 and the P Value (0.000) should be less than 0.05 (5% level of significance). Thus, the result shows that the sample size is adequate and it is significant for further analysis.

TABLE 4

TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.834	39.584	39.584	15.834	39.584	39.584	6.267	15.668	15.668
2	2.124	5.311	44.895	2.124	5.311	44.895	5.108	12.769	28.437
3	1.572	3.930	48.825	1.572	3.930	48.825	5.065	12.662	41.099
4	1.267	3.168	51.993	1.267	3.168	51.993	4.358	10.894	51.993
5	1.197	2.992	54.985						
6	1.113	2.783	57.768						
7	1.059	2.646	60.415						
8	1.014	2.536	62.950						
9	0.938	2.344	65.295						
10	0.919	2.298	67.593						
11	0.877	2.193	69.786						
12	0.794	1.984	71.770						
13	0.772	1.931	73.701						
14	0.732	1.830	75.530						
15	0.723	1.807	77.337						
16	0.628	1.571	78.908						
17	0.618	1.544	80.453						
18	0.594	1.485	81.937						
19	0.585	1.464	83.401						
20	0.559	1.396	84.798						
21	0.524	1.311	86.109						
22	0.493	1.233	87.342						
23	0.456	1.140	88.481						
24	0.428	1.069	89.551						

25	0.412	1.029	90.580						
26	0.353	0.883	91.463						
27	0.351	0.877	92.339						
28	0.340	0.849	93.189						
29	0.311	0.777	93.966						
30	0.301	0.753	94.719						
31	0.286	0.715	95.434						
32	0.269	0.673	96.107						
33	0.249	0.623	96.729						
34	0.223	0.558	97.287						
35	0.222	0.555	97.842						
36	0.211	0.528	98.370						
37	0.189	0.473	98.844						
38	0.165	0.412	99.256						
39	0.158	0.394	99.649						
40	0.140	0.351	100.00						

Total Variance of the Factors: The total variance explained of the factors should be more than 60%. Thus, the 4 factors explained 51.993 % variance between the factors of homogeneous variables.

TABLE 5

ROTATED COMPOUND MATRIX

	Component			
	1	2	3	4
1.Clean and well- maintained	0.207	0.154	**0.607**	0.257
2.Ventilation	0.149	**0.622**	0.222	0.126
3.Temperature	**0.669**	0.215	0.239	-0.055
4.Lighting facilities	**0.493**	0.280	0.219	0.384
5.Rate your work-life balance	0.267	0.164	0.235	**0.545**
6.Drinking water facilities	**0.509**	0.211	0.315	0.162
7.Toilet facilities	**0.603**	0.106	0.152	0.397
8.Removal of Dust and fumes	0.219	0.284	0.300	**0.495**
9.Self-training	0.197	**0.460**	-0.168	-0.405
10.Safety equipments	0.279	**0.709**	0.223	0.063

11.First aid kit	**0.662**	0.220	0.150	0.053
12.Fire extinguisher	0.230	0.398	**0.405**	0.347
13.Emergency exit	**0.717**	0.086	0.138	0.176
14.Avail of emergency alarm	0.383	0.382	0.222	**0.418**
15.Safety inspection and audit	**0.581**	0.198	0.179	0.419
16.Break time	0.117	0.063	**0.610**	0.405
17.Drinking water Supply	0.068	**0.633**	0.156	0.337
18.Sitting facility	0.236	0.293	**0.511**	0.302
19.Canteen facility	**0.412**	0.330	0.299	0.291
20.Lunch and restroom facilities	**0.462**	0.272	0.082	0.453
21.Transportation facility	0.332	0.376	0.299	**0.419**
22.Aware of health policy	0.272	0.054	**0.847**	0.048
23.Aware of safety policy	0.229	**0.681**	0.031	0.174
24.Safety policy written in a working place	0.363	0.349	**0.416**	0.402
25.Supporting mental health policy	**0.439**	0.287	0.271	0.227
26.Grievance handling policy	**0.463**	0.319	0.091	0.388
27.Personal protective equipment policy	**0.547**	0.256	0.256	0.324
28.Risk assessment conducted regularly	0.217	0.100	**0.808**	0.106
29Accidental benefits	0.128	**0.615**	0.071	0.225
30.Checking the condition of machineries	**0.379**	0.359	0.375	0.228
31.Bonus	0.283	0.342	0.310	**0.545**
32.Provident fund	**0.553**	0.104	0.269	0.260
33.Insurance	0.377	**0.456**	0.343	0.219
34.Retirement benefits	**0.516**	0.423	0.280	0.283
35.Incentives	0.333	0.176	-0.012	**0.552**
36.Devices for cutting	0.134	0.170	**0.738**	0.008
37.Protection for eyes	0.226	**0.444**	0.173	0.163
38.Precautions against dangerous fumes	0.180	0.363	0.370	**0.468**
39.Precaution in case of fire	**0.407**	0.355	0.379	0.173
40.Gloves	**0.504**	0.310	0.095	0.453

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation covered in 7 iterations

Naming of Factors: Rotated matrix reveals that variables 3, 4, 6, 7, 11, 13, 15, 19, 20,

25, 26, 27, 30, 32, 34, 39 and 40 are grouped under factor 1; that variables 2, 9, 10, 17, 23, 29, 33 and 37 are grouped under factor 2; 1,12,16, 18, 22, 24, 28 and 36are grouped under factor 3; 5, 8, 14, 21, 31, 35 and 38 are grouped under factor 4. F1 = Occupational health, F2 = Care secure measures F3 = Health guard strategies F4 = Safe zone strategies

Findings of the Study

- From the Kruskal-Wallis Test, it is found that there is no significant difference between the marital status and work life balance of respondents.
- It is found out from factor analysis that out of 40 variables in the data are reduced into 4 factors and each factor is identified with the corresponding variables. Out of 40 statements regarding Satisfaction towards health, safety and welfare of employees, “Occupational health”, “Care secure measures”, “Health guard strategies” and “Safe zone strategies” influenced the Satisfaction towards health, safety and welfare of employees.

SUGGESTIONS

- ✓ The company may improve the working environment and work place surrounding the employee and may be provided with better comfort with good temperature.
- ✓ Safety committee have to be formed to monitor the safety issues.
- ✓ Availability of emergency alarm is most important in the manufacturing area.
- ✓ The safety policy should be displayed in both English and Tamil at the workplace.

CONCLUSION

The welfare measures, including access to proper rest areas, sanitation, and recreational facilities, also contribute significantly to the well-being of employees. However, employees' feedback suggests that some of these measures may still be inadequate or inconsistently applied across different workplaces, highlighting the need for a more standardized approach. Furthermore, employees in the cookware industry have emphasized the importance of regular training and awareness programs to ensure safe working practices and prompt response to emergencies. When

these measures are effectively implemented, they not only mitigate health and safety risks but also foster a positive work culture where employees feel valued and secure. Overall, while many cookware industries in Tirunelveli comply with the basic standards set by regulations like the Factory Act, 1948, ongoing efforts to enhance health, welfare, and safety measures are essential for continuous improvement.

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