

# A Study On Employees Health And Safety With Reference To Omicon Engineering

T. PREM VASANTH RAJ<sup>1</sup>, DR.S. RATHIKA<sup>2</sup>, DR.S. SARA<sup>3</sup>

<sup>1,2</sup>Dept of MBA

<sup>2</sup>Associate Professor/Head of Dept of MBA

<sup>3</sup>Associate Professor/Head of Dept of MBA

<sup>1,2,3</sup>Prince Shri Venkateshwara Padmavathy Engineering College,  
Ponmar, Chennai-600127

**Abstract-** This study has been enriched in OMICON ENGINEERING to identify the improving health and safety. Employees health and safety is a fundamental concern for organization worldwide. this abstract of explores the multifaceted aspects of safeguarding employees in the workplace. It discusses the legal obligations, risk assessment, and preventive measures that employees must implement. Industries in rural areas are more prone to labour problems. In order to bring down labour problems, employee health, safety should be given due importance. Management must also ensure that facilities provided by should reach the employees. Through this analysis we should avoid probable accidents and injuries in ports and docks through personal protective equipments. The study gives ideas about how far employees are satisfied with prevailing welfare facilities. To find out health related problems among the employee's and how far the health facilities are helpful and also to create the awareness regarding safety equipment among the workers. The objective of the study includes, to study about employee's health and safety measures in Omicon Engineering, to identify whether the employee's are satisfied with the welfare facilities provided to them, to identify the reasons for non-use of Personnel Protective Equipment (PPE'S), to analyze the health related issues and health facilities provided to employees.

**Keywords-** Legal obligations, Risk Assessment, protective Equipments, Probable accidents and injuries.

## I. INTRODUCTION

Employees Health implies" the arrangements guaranteeing the health of laborers in the in the conditions under which work is carried on the mechanical offices."

Employees Safety implies" the exercises that look to limit or to take out risky conditions that can cause real damage".Word related safety is worried about dangers in zones where individuals work; workplaces, producing plants, ranches, development locales, and businessandretailoffices,opensafetyisworriedaboutperilsintheh

ome,inmovementandamusementandin different circumstances that don't fall inside the extent of word related safety.

In port occupational health services have very broad functions, going far beyond medical supervision of the personnel and concerned at least as much with treatment, it will usually be convenient in a port of any size, for the port authorities to organize their own medical services with medical services with medical and nursing personnel employed part time or full time according to the number of workers to be supervised.

Accidents and injuries in ports and docks may be caused by environmental factors like bad weather, confined spaces , poor lighting and so on and in many instances, by the need to work fast. A number of accidents could be attributed to non use of Personal

Protective Equipments (PPE'S). The type and degree of hazards during dock work vary according to the nature of the cargo and the working conditions.

## II. INDUSRTY PROFILE

The electrical industry is a vital sector encompassing the design, production, and distribution of electrical components, devices, and systems essential for modern infrastructure and technology. With a rich history dating back to the discoveries of electricity by luminaries like Benjamin Franklin and Nikola Tesla, this industry has evolved into a cornerstone of global development. Today, it is characterized by a diverse range of subsectors, including power generation, transmission, and distribution, as well as electronics manufacturing, renewable energy technologies, and smart grid solutions.generation, transmission, and distribution, as well as electronics manufacturing, renewable energy technologies, and smart grid solutions.One of the defining features of the electrical industry is its constant innovation and adaptation to technological advancements. This sector drives progress in areas such as energy efficiency, automation, and renewable energy integration. Major players in this industry include multinational corporations developing cutting-edge power

systems, small and medium enterprises specializing in niche electronics components, and startups revolutionizing energy storage and grid management. cutting-edge power systems, small and medium enterprises specializing in niche electronics components, and startups revolutionizing energy storage and grid management. The industry's impact extends beyond manufacturing and extends into infrastructure development. It plays a pivotal role in global efforts to transition towards sustainable energy sources, with a focus on reducing carbon emissions and enhancing energy security. Moreover, the electrical industry fuels the growth of emerging technologies such as electric vehicles, smart homes, and industrial automation.

### III. NEED FOR THE STUDY

This study to ensure the safety, health and welfare at work of his or her employees. To manage and conduct work activities in such a way as to ensure the safety, health and welfare at work of all employees. To manage and conduct work activities in such a way as to prevent any improper conductor behavior likely to endanger employees.

### IV. OBJECTIVES OF THE STUDY

#### PRIMARY OBJECTIVE:

- A Study on Employee's Health And Safety in OMICON Engineering

#### SECONDARY OBJECTIVES:

- Are Employee's using the given safety Equipment Properly.
- Awareness about Health and Safety offered by the company.
- Are the employees satisfied with the facilities provided by the organization
- Are the employees experienced and Aware of handling materials

### V. SCOPE OF THE STUDY

The study will give necessary information to management for further improvement in welfare measures of the employees in the rural industries. From this study the management can identify the problem of employee's regarding health and safety of the employees working in the various department of the rural industries. The study gives feedback in identifying right thing needed for employees, so as to provide better health and safety facilities.

## VI. LITERATURE REVIEW

**ABaker;(2023):** Suggested that the organization should provide good fencing facilities to avoid accidents in the industry. Health and safety also suggested that the organization should provide safety equipment to all workers, who work at height occasionally or daily. The occupational health and safety implications associated with compressed and extended work periods have not been fully explored in the mining sector. Absenteeism and incident frequency rate data were collected over a 33 month period that covered three different roster schedules. The only significant change in absenteeism rates was an increase in the maintenance sector in the third data collection period.

**ConnorCoReynolds;(2022):** Found that implemented health provisions give job satisfaction to majority of workers. The author suggested that the organisation should provide good fencing facilities to avoid accidents in the industry. The study also suggested that the organization should provide safety equipment to all workers, who work at height occasionally or daily. organisation can provide overcoat and mask to avoid health infection. Prabakar. Employees satisfaction & welfare measures a case study with special reference to Don Bosco College of Arts & Science” found that out of all the employees are joined.

**J.M.Niven (2021):** Described that the evaluate economic evaluations of health and safety interventions in healthcare. Problems were identified with valuing benefits in health and safety because they frequently take many years to emerge and are difficult to measure. Understanding of economic techniques within the health and safety professions was limited, resulting in wide-ranging assumptions being made as to the positive economic impact of health and safety interventions. Healthcare managers, health economists, and health and safety professionals have not traditionally worked together and have inherent misunderstandings of each other roles. The review concludes that the aim of future research should be to assist the National Health Service (NHS) to make valid decisions about health and safety investment and risk control methods.

**PeterHasleand HansJorgenLimborg(2020):** Commented that regarding preventive occupational Health and Safety Activities in SmallEnterprises has been reviewed in order to identify effective preventive approaches and to develop a future research strategy. There is a lack of evaluation of intervention studies, both in terms of effect and practical applicability. However, there is sufficiently strong evidence to conclude that workers of small enterprises are subject to

higher risks than the larger ones, and that smaller enterprises have difficulties in controlling risk.

**Simon Chapple (2019):** Found that most OECD countries rely on a mixture of market forces, tort liability, compulsory insurance and government regulation to deal with workplace safety and health issues. There are also other non-efficiency reasons for government involvement in workplace safety and health. However, while markets may not be efficient, government intervention can fail to make any improvement and/or not satisfy cost-benefit criteria. While the empirical evidence is not clear-cut, the balance of the evidence suggests that wages may include some consideration for health and safety risks. Evidence also suggests that workers' compensation systems increase the frequency and duration of claims for non-fatal injuries, but may decrease the number of fatal injuries.

## VII. RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. It guides us to how research is done scientifically. It consists of different steps that are generally adopted by a researcher to study his research problems along with logic behind them. The research methodology by itself is a process. It has many stages of activities, grouped together yield the solution to the problem.

### RESEARCH DESIGN:

A research design is purely and simply the framework or plan for a study that guides the collection and analysis of data.

It is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to research purpose with economy in procedure. In the research survey conducted, the research design adopted is "DESCRIPTIVE RESEARCH DESIGN"

- **Sampling design:**

A sample design is a finite plan for obtaining a simple random sampling from a given population.

- **Population:**

The employees of "OMICON ENGINEERING" constitute the workplace of the study. The employees of the company are 300, and it forms the workplace of the present study.

- **Sample size:**

Number

of the sampling units selected from the population is called the size of the sample. Sample of 200 respondents were obtained from the population.

### Sampling Techniques:

- Probability Sampling
- Non-Probability Sampling

### DATA COLLECTION:

- **Primary data:**

The data which is collected for the first time is called as primary data. The various sources for collecting primary data are questionnaire, observation, interview, consumer panels etc. The primary source used for this study is questionnaire. Primary data are collected from the employees of "OMICON ENGINEERING" by circulating a structured questionnaire among them.

- **Secondary data:**

The records and documents pertaining to the overall details of the organization and employees constitute the secondary sources such as books, journals and newspapers. The various sources of secondary data are Books, magazines, statistical data sources etc. Secondary data are obtained from company profile, internet, various other documents, scope need and other reports of the company.

- **STATISTICAL TOOLS:**

SPSS (STATISTICAL PACKAGE FOR SOCIAL SCIENCE):

Statistical package for social sciences (SPSS) is meant for statistical analysis of data. It has tools to obtain accurate results. SPSS is a computer program used for survey authoring and deployment, data mining, text analytics, statistical analysis, and collaboration & deployment. The following statistical tools were used in this study:

- ❖ Chi-square
- ❖ Anova
- ❖ Correlation
- ❖ Regression

- **Percentage analysis:**

In case Percentage refers to a special kind of ratio. Percentage is used in making comparison between two or more series of data. In this study, the number of people who responded in a particular manner is interpreted in the form of percentages.

$$\text{Percentage} = (\text{No of respondents} / \text{Total no of respondents}) * 100$$

**Correlation:**

Correlation analysis is made to determine the degree of relationship between two or more variables. It does not tell about cause and effect relationship. The values of coefficient of correlation lie between +1 to -1. When r = +1, it means there is a perfect positive correlation between the variables.

When r = -1, it means there is a perfect negative correlation between the variables. When r = 0, it means no relationship between the two variables.

**Chi-Square**

The chi-square (x<sup>2</sup>) test is a statistical method used to determine whether there's a significant association between observed and expected frequencies in categorical data. It's particularly useful for analyzing data in contingency tables or when comparing observed data with theoretical expectations.

The formula for the chi-square

The formula for the chi-square statistic is:

$$\chi^2 = \sum (OE) E$$

Where:

- ( $\chi^2$ ) is the chi-square statistic. •(O) represents the observed frequency.
- (E) represents the expected frequency under the null hypothesis.

**ANOVA**

ANOVA stands for Analysis of Variance. It's a statistical method used to analyse the differences among means and to determine whether the differences are statistically significant or not.

The basic idea behind ANOVA is to partition the total variance observed in a data set into different sources of variation. It is commonly used when comparing means of three or more groups or treatments.

**Regression**

Regression, in statistics, refers to a technique used to model the relationship between a dependent variable (usually denoted as (Y)) and one or more independent variables (denoted as (X)). The goal of regression analysis is to understand how changes in the independent variables are associated with changes in the dependent variable.

**DATA ANALYSIS AND INTERPRETATION**

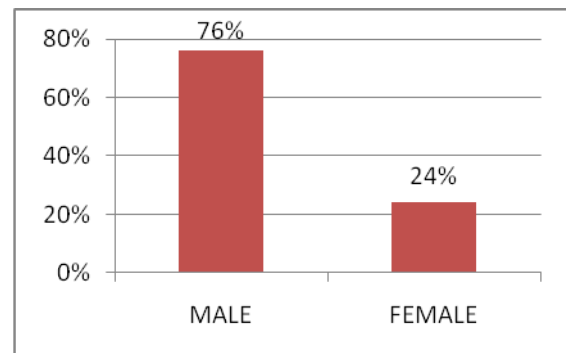
**(a) Table showing the Gender of the respondents**

S.NO	GENDER OF THE RESPONDENTS	NO. OF RESPONDENTS	PERCENTAGE
1	MALE	152	76%
2	FEMALE	48	24%
		200	100%

**INTERPRETATION:**

From the above table 76% of employees are male and 24% of employees are female in the study area.

**Chart showing the Gender of the respondents**



**(b) Table showing the Age of the respondents**

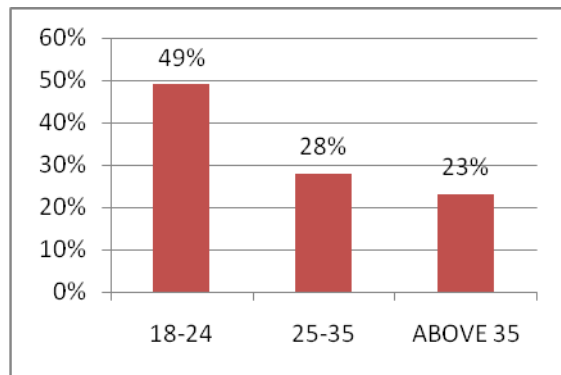
S.NO	AGE IF THE RESPONDENTS	NO. OF RESPONDENTS	PERCENTAGE
1	18-24	98	49%
2	25-35	56	28%
3	ABOVE 35	46	23%
		200	100%

**INTERPRETATION:**

From the above table showing 49% of employees are between the age group of 18-25, 28% of employees are

between the age group of 25-35 and 23% of employees are above 35 age group.

**Chart showing the Age of the respondents**



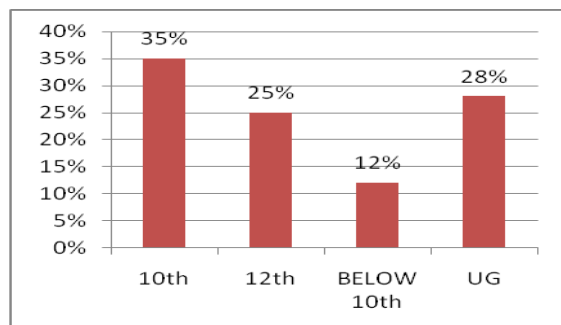
**(c)Table showing the Educational Qualification of the respondents**

S.NO	EDUCATIONAL QUALIFICATION	NO.OF RESPONDENTS	PERCENTAGE
1	10 <sup>th</sup>	70	35%
2	12 <sup>th</sup>	50	25%
3	BELOW 10 <sup>th</sup>	24	12%
4	UG	56	28%
		200	100%

**INTERPRETATION:**

From the above table showing 35% of employees have 10<sup>th</sup> standard qualification, 25% of employees have 12<sup>th</sup> standard qualification, 12% of employees gave below 10<sup>th</sup> standard qualification and 28% of employees have their under graduate degree.

**Chart showing the Educational Qualification of the respondents**



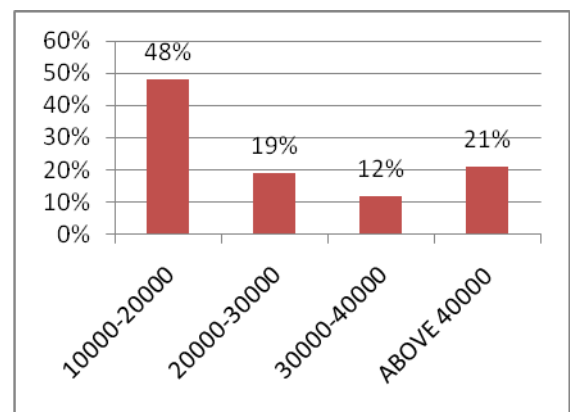
**(d)Table showing the Salary of the respondents**

S.NO	SALARY OF THE RESPONDENTS	NO.OF RESPONDENTS	PERCENTAGE
1	10000-20000	96	48%
2	20000-30000	38	19%
3	30000-40000	24	12%
4	ABOVE 40000	42	21%
		200	100%

**INTERPRETATION:**

From the above table showing 48% of employees are getting salary in between 10000-20000, 21% of employees are getting salary above 40000, 19% of employees are getting salary in between 20000-30000 and 12% of employees are getting salary in between 30000-40000.

**Chart showing the Salary of the respondents**



**(e) Table showing the Experience of the respondents**

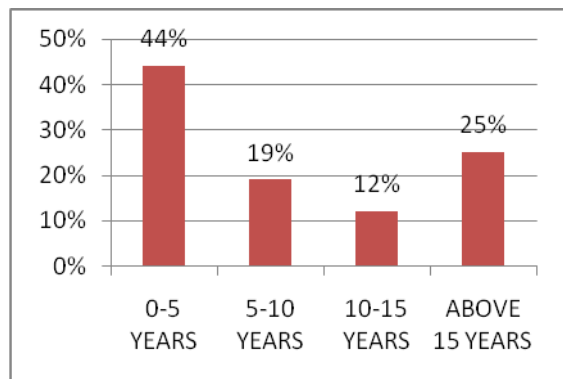
S.NO	EXPERIENCE OF THE RESPONDENTS	NO. OF RESPONDENTS	PERCENTAGE
1	0-5 YEARS	88	44%
2	5-10 YEARS	38	19%
3	10-15 YEARS	24	12%
4	ABOVE 15 YEARS	50	25%
		200	100%

**INTERPRETATION:**

From the above table showing 44% of employees have 0-5 years if experience in an organization, 25% of employees have above 15 years of experience in an organization, 19% of employees have 5-10 years of experience

and 12% of employees have 10-15 years of experience in an organization.

**Chart showing the Experience of the respondents**



**Chi-Square Test**

**Null hypothesis (H0):** There is no significant difference between Experience of the respondent and Procedure for handling and storing flammable materials

**Alternative hypothesis (H1):** There is a significant difference between Experience of the respondent and Procedure for handling and storing flammable materials

**Test Statistics**

	Experience of the respondent	Procedure for handling and storing the flammable materials
Chi-Square	.600 <sup>a</sup>	.000 <sup>b</sup>
df	3	4
Asymp. Sig.	.896	1.000

**Interpretation:** Here the significance was and occurs as 0.8 which is higher than 0.05. Hence accept H0

**Result:** There is a significant difference between Experience of the respondent and Procedure for handling and storing flammable materials

**ANOVA**

**Null hypothesis (H0):** There is no significant difference between Age of the respondent and Potential hazards of hazardous substances used in work place

**Alternative hypothesis (H1):** There is a significant difference between Age of the respondent and Potential hazards of hazardous substances used in work place

**ANOVA**

Age of the respondent

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.000	4	1.000	.	0.00
Within Groups	.000	1	.000		
Total	4.000	5			

**Interpretation:** Here the significance was and occurs as 0.00 which is lesser than 0.05. Hence reject H0.

**Result:** There is no significant difference between Age of the respondent and Potential hazards of hazardous substances used in work place

**VIII. FINDINGS**

- Majority 49% of the respondents are between 18-24 years
- Majority 77% of the respondents are Male
- Majority 35% of the respondents are 10<sup>th</sup>
- Majority 48% of the respondents are between 10,000 to 20,000
- Majority 44% of the respondents are between 0 to 5 years of experience
- Majority 41% of the respondents are familiar with the location of emergency exits and assembly point
- Majority 41% of the respondents have received training on how to properly use fire extinguish here
- Majority 45% of the respondents are aware of the procedure for responding accidents or incidents
- Majority 47% of the respondents have been Informed about the risks associated with your specific job role
- Majority 45% of the respondents use personal protective equipment (PPE) as required for your tasks
- Majority 41% of the respondents are aware of the potential Hazards substances used in your workplace
- Majority 37% of the respondents know the safety protocol for using electrical equipment
- Majority 44% of the respondents have been trained on proper procedure for working at heights

- Majority 44% of the respondents do know how to properly use and maintain respiratory protective Equipment
- Majority 44% of the respondents have received training on safe Driving practices for Company vehicles
- Majority 41% of the respondents are aware of the safety protocols for working in confined spaces
- Majority 44% of the respondents have received training on proper manual handling techniques
- Majority 48% of the respondents do know how to properly dispose of hazard our waste
- Majority 47% of the respondents have received training on preventing eye injuries and the use of eye protection
- Majority 48% of the respondents are have been trained on how to respond to a medical emergency in the workplace

### IX. SUGGESTIONS

1. Employees Health has been affected with pollution factors so the administration office should be reengineered with dust free glass doors & windows
2. Employees have been satisfied with the rural Industries hospital even through Employees need referrals for outside treatment so it should be given to the needy employees
3. Awareness regarding safety be given to the workers related to the use of personal protective Equipments like Documentary films seminars taken over by speaker & real life examples like Direct talk among the workers with the affected workers by the non-use of PPE's
4. 4)To create Awareness program of Employees

### X. CONCLUSION

From the above study it is analysed that safety equipments provided to employees and they are not availing it properly and it causes many injuries inside the organisation, by concluding from the study that there may be a safety equipments utilized by the employees in the organisation and causes of Injuries can be reduced

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