



# ORIGINAL RESEARCH PAPER

# Surgery

## 'MEASURING QUALITY OF WORK LIFE OF EMPLOYEES WORKING IN CHEMICAL INDUSTRY'

**KEY WORDS:** Chemical, QWL, Gujarat, Employees

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### ABSTRACT

Chemical industry contributes significantly to improving the quality of life through breakthrough innovations enabling pure drinking water, faster medical treatment, stronger homes and greener fuels. But there was a need to look into the quality of work life among employees with special reference to chemical industry in Gujarat state of India. This study is an attempt to fulfill the same. Basic aim of this study is to study quality of work life of employees working in chemical industries. Descriptive research has been carried out and data has been collected with the help of primary data through questionnaire. Findings reveal that quality of work life of employees working in chemical industry in the Gujarat state of India is quite good as workers are given fair pay, training related to their job, career advancement opportunities are available and they are quite satisfied with their job.

### INTRODUCTION

Chemical industry contributes significantly to improving the quality of life through breakthrough innovations enabling pure drinking water, faster medical treatment, stronger homes and greener fuels. The chemical industry is critical for the economic development of any country, providing products and enabling technical solutions in virtually all sectors of the economy. Indian Chemical Industry is contributing around 2.11 percent of the Indian GDP (Gross Domestic Production). It touches our lives in many different ways. Whether it is thermoplastic furniture we use, or a synthetic garment we wear, or a drug we consume – we are inextricably linked to it. This industry has key linkages with several other downstream industries such as Automotive, Consumer durables, Engineering and Food processing. India is currently the world's third largest consumer of polymers and third largest producer of agrochemicals. India specialty chemical market is expected to reach USD70 billion by 2020<sup>1</sup>. The Indian chemical industry is characterized by:

1. High domestic demand potential
2. High degree of fragmentation and small scale of operation
3. Limited emphasis on exports due to domestic market focus
4. low cost competitiveness as compared to other countries due to higher cost of power and other utility, import duties, taxes, higher cost of capital and raw material and poor infrastructure facility
5. Low focus on R&D despite innovative processes to synthesize product cost effectively.

Chemical industry can be classified into three segments Basic, Specialties and Knowledge Chemicals. The examples are:

- (1) **Basic:** Petrochemicals, Fertilizers, Inorganic chemicals, Alkalies, Chloralkalies, Aromatics, Thermoplastics, Thermo sets and Other Industrial chemicals.
- (2) **Speciality:** Adhesive, Sealant, Catalysts, Industrial gases, Paints and Coating, Pharma additives, Lubricants, Water treatment chemicals, Plastic additives
- (3) **Knowledge:** Agrochemicals, Pharmaceuticals, Biotechnology

### PROBLEMS OF CHEMICAL INDUSTRY

The Indian chemical manufacturers face issues around raw materials, infrastructure & environment, duty structures, human resources, etc. Some of the challenges faced by them have been detailed below –

#### High prices of basic feed stock

Basic raw materials constitute major portion of cost of production (30% to 60%) in the chemical industry. Indian chemical industry either uses natural gas or crude oil as feedstock for manufacturing process. The fluctuations in oil prices therefore affect the growth projections of the firms. At times, the manufacturers are unable to pass-on the cost escalation (occurring due to sudden increase in oil prices) to end consumers. Cost optimization is thus critical for the

chemical units, as their margins may go under pressure during oil crisis.

#### Low R&D levels

R&D intensity is assuming greater significance for many of the manufacturing segments. Since, chemical industry is a knowledge based industry, the competitiveness of the units can be strengthened only through supply of new and innovative products. The areas for R&D in chemical industry include improvements in manufacturing process for reduction in cost of production, application development to diversify demand, and new product development. The level of R&D investments in the Indian chemical sector is low at around 0.3% of total sales.

#### Low Level of Brand Development

Indian chemical producers, excepting a few large producers, generally sell their products as generic products without brand development. There is also low level of interest amongst smallscale producers for brand development, product development as also market development.

#### Dumping / Import Competition

As mentioned earlier, the chemical industry is the second largest industry that has attracted large number of anti-dumping actions in the world. In India, chemicals and petro-chemicals industry is the largest segment that has initiated anti-dumping investigations during the period 1992-2005. 82 antidumping cases (out of 188 cases) initiated by India fall under the category of chemicals and petrochemicals, during this period.

#### SSI reservation / Fragmented nature of industry

The Indian chemical industry is having a fragmented structure with more number of units in small-scale sectors spread in various parts of the country. The installed capacities in most of the small-scale units are smaller as compared to global scales. The limitation in capacity in the SSI sector put them in disadvantageous position while tapping export opportunities with large volume.

### INTRODUCTION TO QUALITY OF WORK LIFE

Quality of work life also refers to the favorableness or unfavourableness of a job environment for people. It is a generic phase that covers person's feelings about every dimension of work including economic rewards and benefits, security, working conditions, organization and interpersonal relationship and its intrinsic meaning in a person's life. The basic purpose of quality of work life is to develop work environment that are excellent for people as well as for production. It aims at healthier, more satisfied and more productive employees and more efficient, adaptive and profitable organization.

'Harrison (1985)<sup>2</sup> defines QWL (Quality of Work Life) is the degree to which the working organization contributes to material and psychological well-being of its members'.

According to the American Society of Training and Development

(1979), it is a process of work organization which enables its members at all levels to actively participate in shaping the organization's environment, methods and outcomes. This value based process is aimed towards meeting the twin goals of enhanced effectiveness of the organization and improved quality of life for employees.

## REVIEW OF LITERATURE

**'Mohammad Baitul Islam (2012)<sup>3</sup>** studied Factors affecting Quality of Work Life: An analysis on employees of private limited companies in Bangladesh'. Quality of work life is a critical concept with having lots of importance in employee's life. This research study attempted to find out the factors that have an impact and significance influence on quality of work life of employees in private limited companies of Bangladesh. The study concluded that an appropriate organization culture, compensation policy, career growth and relative facilities can leads to a satisfied employee mindset which ensure the overall organization productivity.

**'Indumathy R. And Kamalraj S. (2012)<sup>4</sup>** studied A Study on Quality Of Work Life among workers with special reference to textile industry in tirupur district – A textile hub'. There is an attempt to look into the Quality of Work Life among Workers with special reference to textile industry in tirupur district – A textile hub. The sample size taken to conduct the research is 60 workers. For this study, the sampling technique chosen is convenient sampling. Structured interview schedule was used for primary data collection. The investigation has remarkably pointed out that the major factors that influence and decide the Quality of Work Life are attitude, environment, opportunities, nature of job, people, stress level, career prospects, challenges, growth and development and risk involved in the work and rewards

**'M. Kavitha, Anupreeti T and Janani Prabha S (2010)<sup>5</sup>** studied 'A Study on Quality of Work Life among Employees in IT Sector'. The main aim of this study is to know employees balance their life and to identify health determinants in working life among employees. For this purpose quality of work life is measured by taking into account of employees' Health and safety, Work Environment, Job satisfaction, Motivation, Job Designing and Term Effectiveness. The sample size for this study was 50 and primary data was collected from employees' working in IT companies. From this study work environment, job analysis, satisfaction and motivation are the four major determinants of quality of work life which play the vital role for employees' better performance in the organization.

## RATIONALE OF STUDY

There is an attempt to look into the Quality of Work Life among Workers with special reference to chemical industry in Gujarat State of India. The project helps to understand how a company's HR Department's attempts to improve their business by keeping good relations with employees. It helps to understand how good working conditions help employees to work more efficiently. This project is a means to appreciate the nitty-gritty involved in employees' relationship with their organization and their employers. It helps to understand how an organization keeps constant check of quality of work life of employees by taking and evaluating their feedback on job profile, appreciation and rewards, training, congenial relationship in organization. Moreover no other research in this topic has been done in this industry is the reason why researcher selected this topic.

## SCOPE OF STUDY

Scope is limited only up to studying QWL of 100 employees working in chemical industries.

## RESEARCH PROBLEM

Research problem is as given as under:

'To Study Quality of Work Life of Employees Working in Chemical Industry.'

## RESEARCH OBJECTIVES

Basic aim of this research is to find out Quality of Work Life of

Employees Working in Chemical Industry. Other objectives are:

- To measure core aspects of work life of employees.
- To measure Quality of Work Life relating to your immediate superior.
- To give suitable suggestions.

## RESEARCH DESIGN

**Descriptive research** will be carried out in this study because this study aims at describing the Quality of Work Life of Employees Working in Chemical Industry.

## SAMPLE DESIGN

- **Sampling Method:** Non-probability convenience sampling method
- **Sample size:** 100
- **Sample unit:** Employees of Chemical Industry

## DATA COLLECTION METHOD

Primary data has been collected by using data collection instrument as questionnaire. Secondary data has been collected from journals, books, etc.

## DATA ANALYSIS & INTERPRETATION

**Table No.: 1 - Table showing Years of Work**

Since how many years you have been gainfully employed in this organization?	No. of Employees
Less than 1 year	0
2--3	27
3--5	26
5--8	32
Above 8	15
Total	100

Source: Questionnaire

**Interpretation:** From the above chart it is clear that majority that is 32% has reckoned that they have been gainfully employed since 5-8 years in this organization.

**Table No.: 2 – Table showing Satisfaction with current job**

How satisfied are you with your current job?	No. of Employees
Very satisfied	17
Quite satisfied	78
Rather dissatisfied	2
Very dissatisfied	3
Total	100

Source: Questionnaire

**Interpretation:** From the above chart it is clear that majority that is 78% has reckoned that they are quite satisfied with their current job.

**Table No.: 3 – Table showing Fair Pay**

In your opinion, is your pay fair in comparison with the remuneration paid in other occupations? Is your pay:	No. of Employees
Clearly higher than it should be	0
Somewhat higher than it should be	14
About right	49
Somewhat lower than it should be	37
Clearly lower than it should be?	0
Total	100

Source: Questionnaire

**Interpretation:** From the above chart it is clear that majority that is 49% has reckoned that their pay is about right fair in comparison with the remuneration paid in other occupations

**Table No.: 4 – Table showing breaks or rest periods**

In your work, can you generally take breaks or rest periods:	No. of Employees
Sufficiently often	5
Not quite often enough	87
Far too seldom	8
Total	100

Source: Questionnaire

**Interpretation:** From the above chart it is clear that majority that is 87% has reckoned that breaks or rest periods are not quite often at their workplace

**Table No.: 5 – Table showing Opportunities for receiving training**

In your current workplace, do you have good, fair or poor opportunities for Receiving training to improve your professional skills?	No. of Employees
Good	19
Fair	75
Poor	6
Total	100

Source: Questionnaire

**Interpretation:** From the above chart it is clear that majority that is 75% has reckoned that there are fair opportunities for receiving training.

**Table No.: 6 – Table showing advancement opportunities**

In your current workplace, are your advancement opportunities good, fair or poor?	No. of Employees
Good	17
Fair	59
Poor	24
Total	100

Source: Questionnaire

**Interpretation:** From the above chart it is clear that majority that is 59% has reckoned that advancement opportunities in their workplace are fair.

**Table No.: 7 – Table showing Psychological violence**

Psychological violence at work, or workplace bullying,	No. of Employees
Not at all	2
Occasionally	70
Continuously	28
Total	100

Source: Questionnaire

**Interpretation:** From the above chart it is clear that majority that is 70% has reckoned that occasionally there is a psychological violence at work, or workplace bullying at their workplace.

## TESTING OF HYPOTHESIS

The analysis involves the application of the Chi-square test for testing the significance level of the formulated hypothesis through SPSS software:

The broad hypothesis formulated is as under:

1.  $H_0$  : There is no significant difference between age of the respondents and Measuring Quality of Work-Life Relating to Your Immediate Superior

**Table 1 showing Age-wise testing of Trust in Internet Shopping**

Hypothesis	Chi-square	df	Significance	Decision
Age * My superior supports and encourages me	20.500	9	.015	Hypothesis rejected and Significant relation
Age * My superior trusts his/her employees.	23.670	9	.005	Hypothesis rejected and significant relation
Age * My superior speaks openly about everything concerning the workplace.	12.001	9	.213	Hypothesis accepted and No significant relation
Age * There Are A Lot Of Conflicts Between Me And My Superior	19.001	12	.089	Hypothesis accepted and No significant relation
Age * My Superior Does Not Care About his Employee's Feelings	44.760	15	.000	Hypothesis rejected and Significant relation

2.  $H_0$  : There is no significant difference between Education of the respondents and Measuring Quality of Work-Life Relating to Your Immediate Superior

**Table showing Education-wise testing of Trust in Internet Shopping**

Hypothesis	Chi-square	df	Significance	Decision
Education * My Superior Supports And Encourages Me	19.576	12	.076	Hypothesis accepted and No Significant relation
Education * My Superior Trusts His/Her Employees	14.769	12	.254	Hypothesis accepted and No significant relation
Education * My Superior Speaks Openly About Everything Concerning The Workplace	23.724	12	.022	Hypothesis rejected and significant relation
Education * There Are A Lot Of Conflicts Between Me And My Superior	47.188	16	.000	Hypothesis rejected and significant relation
Education * My Superior Does Not Care About This Employees Feelings	34.106	15	.025	Hypothesis rejected and Significant relation

## FINDINGS

Following are the findings of the study:

- 32% employees are working in the organization for 5 to 8 years.
- 78% are quite satisfied with their current job.
- 49% of employees' opinion is they are getting right pay in comparison with the remuneration paid in other occupations.
- 87% of employees are not taking break quite often enough.
- 75% agree that they have fair opportunities for receiving training to improve their professional skills in their current job.
- 59% had attended courses while being paid by their employer over last 12 month.
- 59% feels that they have fair advancement opportunities in their workplace.
- 79% has reckoned that occasionally there is a psychological violence at work, or workplace bullying at their workplace.
- 77% suffered from continuous mental tension due to work.
- There is significant relationship between Age and My superior supports and encourages me.
- There is significant relationship between Age and My superior trust his/her employees.
- There is no significant relationship between Age and my superior speaks openly about everything concerning the workplace.

- There is no significant relationship between Age and There Are A Lot Of Conflicts Between Me And My Superior.
- There is significant relationship between Age and My Superior Does Not Care about This Employees Feelings.
- There is no significant relationship between Age and My superior supports and encourages me.
- There is no significant relationship between Age and My superior trust his/her employees.
- There is no significant relationship between Age and my superior speaks openly about everything concerning the workplace.
- There is no significant relationship between Age and There Are A Lot of Conflicts between Me and My Superior.
- There is significant relationship between Age and My Superior Does Not Care about his Employees Feelings.

### SUGGESTIONS

1. Workers should be encouraged to take sufficient breaks during their work
2. Stress –relief programmes or training should be conducted for workers
3. Psychological violence or bullying at workplace should be controlled

### CONCLUSION

Thus it can be concluded that quality of work life of employees working in chemical industry of Gujarat State in India is quite good as workers are given fair pay, training related to their job, career advancement opportunities are available and they are quite satisfied with their job. However, it is observed that workers working in chemical industry are so busy that they are not taking enough breaks which is harmful for their health and which leads to stress environment at workplace. There is also lot of bullying at workplace in chemical industry.

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