

A STUDY ON WORKING CONDITION OF EMPLOYEES WORKING IN CHEMICAL INDUSTRY AT VAPI CITY

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ABSTRACT

This is a study about studying the working conditions of employees working in Chemical Industry at Vapi city. The research survey has been done in Vapi G.I.D.C. of South Gujarat Region which is very named for establishment of Chemical Industries. This research study focuses on working condition of employees at work place. As we know if working condition of employees will be sound, they will work freely and feel stress less at work place; their performance will certainly increase and they will be highly motivated to produce output in the organization. The next part is the literature review because during the making of this report many research papers have been referred, so out of those numbers, few which have really helped in this report are mentioned. Employee's attitude towards organization will be positive if their work environment will be cool and supportive while working at work place. In the research methodology, the descriptive research design is applied, where the data collected while using construct questionnaire method, and 50 sample sizes are taken for this research survey. The data analysis has been done to get final findings & conclusion of the research report. It was found out that in chemical industry at Vapi city; the working condition of employees is cool & supportive. They work without taking stress or having very low level of work pressure. The report ends with the references & bibliography where all the sources from where various datas are collected including books, magazines and websites are enlisted. The data is collected analyzed and evaluated systematically while using factors analysis.

KEYWORDS: Working Condition, Stress Level, Employee's Attitude, Performance, Chemical Industry.

Introduction

Working conditions refers to the working environment and aspects of an employee's terms and conditions of employment. According to ILO (International Labour Organization), "Working conditions are the core of paid work and employment relationships. Generally speaking, working conditions cover a broad range of topics and issues, from working time (hours of work, rest periods, and work schedules) to remuneration, as well as the physical conditions and mental demands that exist in the workplace".

Working conditions are nothing but the environment in which one works, as influenced by factors such as cleanliness, lighting, equipment, paid overtime, uniforms, access to amenities, etc. working conditions have a significant impact on employee productivity and on the eventual success of a business. While conditions often vary by industry, and on the resources of the employer, successful small business owners pay attention to understand the conditions under which they expect their workers to perform.

Working conditions are the context within which a worker is expected to perform his job. Here work context means the physical and social factors that influence the nature of work, which it further divides into three categories:

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- **Physical Conditions:** the physical conditions of the workplace and physical demands of the job. These conditions include things like lighting, the size of the space in which a worker must perform his/her job, exposure to potential toxins, allergens, chemical or biological hazards, and what kind of physical strain (i.e. heavy lifting, a worker can expect to undergo.)
- **Interpersonal Relationships:** All jobs require some type of contact with others, but the nature and frequency of this contact varies from job to job. Work conditions in this category may include working with customers, making "cold calls" by telephone or in-person, working with people who are hostile or potentially dangerous, regular public speaking, answering phones or responding to email.
- **Structural Job Characteristics:** Structural characteristics are defined by job performance expectations, such as job scheduling, the consequences of making a mistake, latitude of independent decision making, and whether the job is largely unstructured or requires a lot of repetitious tasks.

Work conditions can have a significant impact on morale and productivity. In addition, healthy work conditions also protect the well-being of employees, reducing the chances of workplace injuries along with resulting financial liabilities and the need to take time off. Providing details about a company's work environment and conditions helps job searchers determine whether this job is a worth full or not. Statements about work conditions and environment, including the physical demands of jobs, can be useful in defending against discrimination or disability accommodation lawsuits. For example, if a restaurant line cook is expected to stand on her feet in a loud, hot kitchen for a long shift, a restaurant may be justified in not hiring somebody who is unwilling or unable to work under those conditions.

Literature Review

Dorman (2000) overviewed of issues relating to the economic safety, health, and wellbeing at work. He deals with such issues as the costs of accidents and ill-health for individual workers as well as for companies and society. He argued that, for companies to provide effective improvement of safety and health conditions, the costs of ill-health must be economic, internal, variable and visible. **Goetzel (1999)** has introduced a method called "Health Productivity Management". It aims to establish links between today's business climate, people, operational challenges, and ultimately the productivity of an organisation. The method is based on the idea that improving worker health is directly related to how productive and profitable organisations can become. According to **Barefoot Economics (2001)** revealed that personnel's high work ability, work satisfaction and organisational commitment had a positive relationship to workplace success. **Bunn, Pikelnny, Slavin, Paralkar (2001)**, a sound level of working condition includes the measurement, analysis, and management of the individual component programmes affecting employee safety, health and productivity. For example, a comprehensive and widely acceptable working condition has had a significant impact in terms of reducing stress and improve productivity, measured as absenteeism. **Cooper, Liukkonen, Cartwright (1996)**, the authors assessed the costs and benefits to organisations of stress prevention in the workplace. They presented three case studies and found that stress prevention presents a means whereby an organisation cannot only reduce or contain the costs of employee health but can also positively maintain and improve organisational health and productivity. **Court (2003)**, the paper entitled 'Links between the quality of working life and productivity-Evidence to the enquiry submitted by the health and safety commission and health and safety executive' is a response to the work foundation enquiry into links between the quality of working life and productivity. The evidence that is presented is based on national data for UK work-related injuries, diseases, and their impact on absenteeism and the costs for society and companies. **Galiker (2000)**, the author states that improving the well-being of its workers, offers a company the opportunity to enhance its performance. This is illustrated with cases from companies such as Beiersdorf AG, Suva Niederlassung and Volkswagen AG. **Kreis, Bodeker (2003)**, the authors studied the evidence found in literature sources for the effectiveness of workplace health promotion. They looked at 25 reviews of published sources and more than 400 studies for programmes in the workplace on alcohol, nutrition, stress, tobacco and so on. **Langhoff (2002)**, occupational safety and health contributes to corporate goals. To make this relationship visible is a challenge for a results-oriented occupational safety and health system. **Serxner, Gold, Anderson, Williams (2001)**, the authors examined the impact of a worksite health promotion programme on short-term disability days in a large telecommunications company. This study found that participation in a health promotion programme had a significant impact on average net days lost for employee short term disability absence.

Research Methodology

- **Scope of the Study:** The present study is aimed at studying the working conditions of employees working in chemical industry at Vapi City of Valsad District. The findings of the study will throw light on certain working conditions affecting stress level of employees and would help to formulate better plans to make a better working condition.

Objectives of Study

- To identify various factors affecting working conditions of employees working in chemical industry at Vapi City.”
- To study the existing working condition of employees working in chemical industry at Vapi City.
- To assist the management to recognize the importance of working conditions for betterment of employees.

Sampling Unit and Sample Size

The present study proposes to cover the chemical industry of GIDC Vapi city in Valsad district and respondents were selected according to Purposive Sampling Method.

Sources of Data

- **Primary Data:** Primary data was collected from 50 respondents from different chemical companies such as M.M. Chemical Pvt. Ltd., Aarti Industries, Triveni Chemicals, Hirebna Industries in GIDC Vapi City, Valsad. The sample is inclusive of middle level employees as well as lower level of employees and the secondary data has been collected from magazines, reports, newspapers and websites.

Statistical Tools

The collected data has been analyzed and presented with the tools like Factor Analysis, **KMO and Bartlett's Test**, Scree Plot, and Descriptive Statistics Analysis.

Limitations

- The present study has constraints of time and money.
- There may be chances of errors due to random sampling.
- The respondents were from Valsad district only and therefore may not give the same result as on a national scale.

Data Analysis and Interpretation

Demographic Profile

Demographic Variables	Category	Frequency	Percentage
Age Group of Respondents	Under 30 Years	25	35.72
	31-50 years	30	42.85
	Above 50 years	15	21.43
Category of Respondents	Lower level employees	40	57.15
	Middle level employees	30	42.85
Type of Respondents	Male	50	71.42
	Female	20	28.58
Marital Status.	Unmarried	22	31.42
	Married	48	68.58
	Divorced	00	00.00
Monthly Income	Less than 10,000	05	07.14
	10,000-20,000	32	45.72
	20,000-30,000	15	21.42
	Above 30,000	18	25.72

The above demographic profile depicts 42.85% respondents were between the age group of 35-50 years Most of them belong to (57.15%) lower level employees. Out of all respondents major were male with more than 70%. Major ratio of respondents had marital status nearly with 70% while monthly income of respondents was found in between 10,000 and 20,000 with more than 45% out of all respondents. The sample respondents were divided into three age groups while into two category regards with their job position.

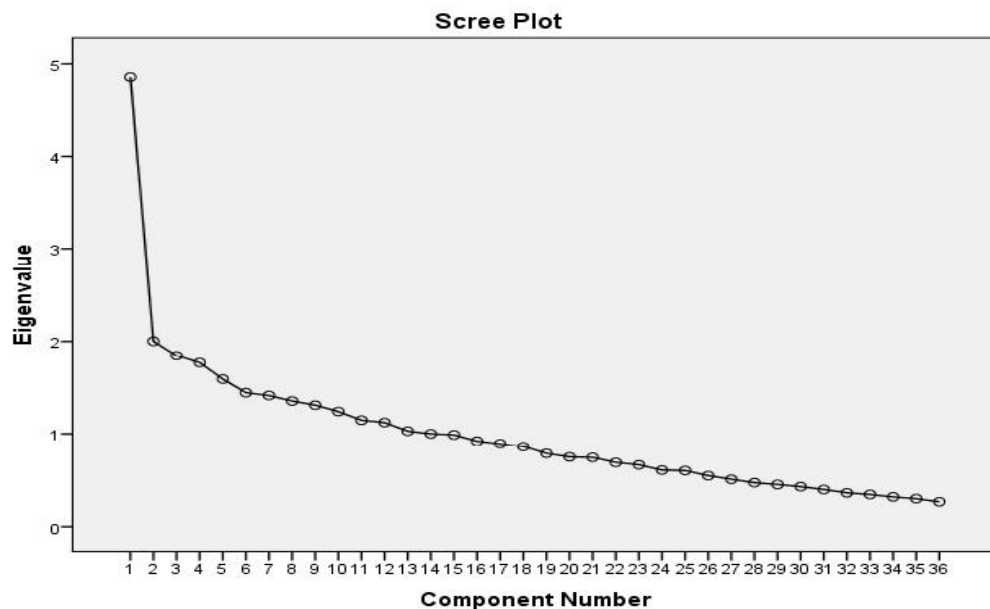
• **Factor Analysis**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Workplace Bullying	50	1	5	1.29	.671
Technological/System Problem	50	1	5	1.78	.910
Fear of Job Loss	50	1	5	1.78	.859
Over Workload	50	1	5	2.00	1.054
Availability of Equipments	50	1	5	2.06	1.148
Physical Work Environment	50	1	5	2.07	1.250
Work Demand	50	1	5	2.07	1.037
Longer Time Frame	50	1	5	2.10	1.094
Support from Peers and Colleagues	50	1	5	2.19	1.168
Management Relationships	50	1	5	2.22	1.113
Change in Organization	50	1	5	2.29	1.217

The above table states that out of 70 respondents; mostly respond that workplace bullying is a big factor for working conditions of employees in the organization as lowest mean 1.29 was there among various factors affecting working condition of employees. While there is equal respond for technological/system problem & fear of job loss with 1.78 mean values respectively for both. But change in organization is the least factor affecting for employees working condition with highest mean values of 2.29 out of total factors according to the respondent's views. There is a tie response between two factors i.e. physical work environment and work demand with the mean values of 2.07 for both factors. Thus, it can be stated that in chemical industry at Vapi City, the employees are more concerned and feel stressed with workplace bullying along with technology advancement & fear of job loss.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.672
Bartlett's Test of Sphericity	Approx. Chi-Square	1423.797
	Df	630
	Sig.	.000

From the above KMO and Bartlett's Test, It can be stated that the researcher can use Factor Analysis in this study as Kaiser-Meyer-Olkin Measure of Sampling Adequacy value is more than 0.6 and Significance value is found to be less than 0.05.



From the above Scree Plot, it can be interpreted that there are 05 major components are extracted out of all variables of employees' working condition which is found to be less than 1 Eigen value. It means these all extracted components are more suitable variables of employee working condition in chemical industry at Vapi City.

Rotated Component Matrix Table

Sr. No.	Statement	Value	Component	Avg. Value of Component
1	Rudeness of senior employees towards their junior employees	0.780	Workplace Bullying	0.670
	Ageist comment on employees	0.561		
2	Deadlines to complete tasks given by management	0.747	High Ambitious Target	0.670
	Stress level in absence of colleague	0.700		
	Task completion on time	0.565		
3	Organization is committed for individual growth	0.798	Fear of Job Loss	0.671
	Company's strict policy towards absenteeism, leave and holidays	0.544		
4	Innovation and Automation in work	0.755	Technological/System Problem	0.683
	New techniques of doing work	0.611		
5	Excess work load beyond employee's capacity.	0.740	Over Workload	0.633
	Less remuneration for overtime work	0.526		

The above table data has been extracted from Rotated Component Matrix Table. It is found that there are 5 major components affecting level of employee's working condition in chemical industry at Vapi City. Technological/system problem is found to be the major component amongst all the other components with the average mean component value of 0.683. Workplace bullying and physical work environment were the components of equal average mean values of 0.670. Fear of job loss was also the crucial factor for working condition of employees into the organization with the average component mean value of 0.671. But employee's over workload was found to be the least component amongst all with the average component mean value of 0.633. Thus, it can be said that there are some major components which affect employee's working condition in chemical industry at Vapi City like... workplace bullying, over workload, technological/system problem, fear of job loss, physical work environment etc.

Findings

The basic objective of this study was to identify some factors that affect working condition of employees working in chemical industry at Vapi City. It is found that over workload, physical work environment, availability of equipments, technological/system problem, longer time frame, fear of job loss and workplace bullying affect working condition of employees. In addition to these factors there are some potential factors such as infrequent rest breaks, noise and overcrowding, polluted air, ergonomic problems, health and safety risks, unclear responsibilities or expectations, conflicting job demands, multiple supervisors, inefficient communication patterns, lack of family-friendly policies, lack of preparation for technological changes, poor chances for advancement or promotion office politics, competition and other conflicts among staff. It is found that there are 5 major components affecting working condition of employee's in chemical industry at Vapi City. Technological/system problem is found to be the major component amongst all the other components with the average mean component value of 0.683 and workplace bullying and high ambitious target were the components of equal average mean values of 0.670 while fear of job loss was also the crucial factor for working condition of employees into the organization with the average component mean value of 0.671. Findings shows that both management and employees are responsible for creating a sound working condition. Out of all respondents major were male with more than 70%. Major ratio of respondents had marital status nearly with 70% while monthly income of respondents was found in between 10,000 and 20,000 with more than 45% out of all respondents.

Thus, management and employees both can work together to develop a sound level of work environment. Findings reflect that major of employees are working in an unacceptable working conditions which is very intriguing fact which has to be taken into consideration by the management authorities.

Conclusions and Suggestions

The present study was conducted in chemical industry at Vapi City with an intention to study working condition of employees. This was done using a detail questionnaire. The study revealed that most of the employees lack with a sound level of working condition. One of the important factors of working condition identified during the survey was workplace bullying while working at workplace. At the end of the study it can be concluded that various crucial factors can working condition of employees for both; lower level and middle level employees thus, management should try to develop a better level of working condition for employees by providing various facilities and initiating various activities like yoga and meditation. The organization should implement yoga as a work stress reduction tool. Medical examination can be made mandatory for all level of employees. Counseling can be made mandatory in the organization. Management must reduce over workload by job rotation procedure or recruiting new employees and designing job on employees properly. Lectures regarding how to maintain a balance between work and family should be initiated. At the end, I would like to conclude that it was a great experience to study working condition of employees working in chemical industry at Vapi City.

References

1. Cohen, S , Tyrrell, D , & Smith, A (1991) *Psychological stress and susceptibility to the common cold*. *New England Journal of Medicine*, 325,606-612.
2. Crandall, C., Priesler, J, & Ausprung, J (1992). *Measuring life event stress in the lives of college students: The undergraduate stress questionnaire*. *Journal of Behavioral Medicine*, .12(6), 627-662.
3. Cushway, D. (1992) *Stress in clinical psychology trainees*. *British Journal of Clinical Psychology*, IL 169-179.
4. Dohrenwend, B., & Shrout, P. (1985). "Hassles" in the conceptualization and measurement of life stress variables. *American Psychologist*, 1Q(7), 780-785.
5. Dollahite, D. (1991). *Family resource management and family stress theories: Toward a conceptual integration Lifestyle: Family and Economic Issues*, .11(4), 361-377.
6. Freudenberger, H., & Richelson, G. (1980). *Burnout: The high cost of high achievement*. New York: Anchor Press. Gadzella, B. (1994) *Student-life stress inventory: Identification of and reactions to stressors*. *Psychological Reports*, 11, 395-402.
7. Garden, A. (1991). *Relationship between burnout and performance*. *Psychological Reports*, 963-977.
8. Gerson, J. (1985). *Women returning to school: The consequences of multiple roles*. *Sex Roles*, .U., 77-92.
9. Goplerud, E. (1980). *Social support and stress during the first year of graduate school*. *Professional Psychology*, 11, 283-290.
10. Greenberg, J. (1992). *Study of stressors in the college student population*. *Health Education*, .11(4), 8-12.
11. Greenberg, J. (1996). *Comprehensive stress management*. Dubuque, IA: Brown & Benchmark. Halleck, J. (1976). *Emotional problems of the graduate student*. In J. Katz & R.T Hartnett (Eds.), *Scholars in the making* (pp.161-176).
12. Cambridge, MA: Ballinger. Heins, M., Fahey, S., & Leiden, L. (1984). *Perceived stress in medical, law, and graduate students*. *Journal of Medical Education*, 169-179.
13. Hill, R. (1949). *Families under stress*. New York: Harper & Row. Hinds, H., & Burroughs, W. J. (1997). *How you know when you're stressed: Self evaluations of stress*. *Journal of General Psychology*, 124, I OS-II I.
14. Hines, M. (1996). *Follow-up survey of graduates from accredited degree-granting marriage and family therapy training programs*. *Journal of Marital and Family Therapy*,_II, 181-194.
15. Holmes, T. H , & Rahe, R. H. (1967). *The social readjustment rating scale*. *Journal of Psychosomatic Research*, .U(2), 213-218
16. Hudson, S. & O'Regan, J. (1994). *Stress and the graduate psychology student*. *Journal of Clinical Psychology*, 22(6), 973-977.

