

Measuring the Effectiveness of Health and Safety Practices at Work Place

Venkata Subbiah. P¹, Krishanna Moorthy.P² & Rahim Basha.S³

¹Assistant Professor in Dept. MBA, Annamacharya Institute of Technology and Sciences, Rajampet.

²Professor in Dept. MBA, Annamacharya Institute of Technology and Sciences, Rajampet.

³Assistant Professor in Dept. MBA, Allagadda Institute of sciences, Allagadda.

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ABSTRACT

Business entities in today's competitive environment are constantly struggling with revolutionary trends in terms of accelerating product and technological changes, global competition, deregulation and demographic changes, and the apparent need to survive by implementing policies and programmes to cope with ever changing work place environment. Corporations in the current era focus on the development of employees and they believed in the ideology of benefiting employees through different approaches. Safety at the work force is an important aspect that many organizations of today's world disregard. Many people face mishaps and accidents in various situations especially due to negligence, recklessness, and carelessness. Many accidents and serious injuries are avoidable and preventable by taking effective safety measures and reducing hazards. Making every employee safe in a work place is the primary responsibility of the management. Management has to strictly follow the legislations relating to the safety measures. This paper focus on Employee safety measures at work place with reference to Andhra Pradesh power generation corporation limited, RTPP. The data is analyzing with using of SPSS and to find the ANNOVA, correlation between the identified variables.

Keywords: Employee safety, Corporations, Health Practices, Health Practices.

1. Introduction:

Workplace safety refers to the prevention of illness, injury, and hazards in the workplace for all employees. Workplace safety involves the creation of a safe and healthy environment for all workers to evade hazards, injuries, and illnesses. Thus "safety is a concept which deals with the prevention of accidents and it minimizing the resulting laws and damage to persons and property" Energy occupies a very important position in the micro as well as macro-economic development of a nation. In fact, it has always remained the mainstay of a country's progress and today it is playing a predominant role in all the walks of life- whether it is running the wheels of the industry or lighting homes or providing heat for domestic cooking or for running a train for transportation of passengers and goods. It is the energy, which provides the main support for subsistence as well as survival of mankind. The world, today, has come to a stage where the economic growth and the standard of living in any country are synonymous with the availability, exploitation and use of its energy resources. Precisely all activities whether economic or otherwise require energy. Both the central and state governments have accorded thrust on the energy sector, mainly as one of the essential sectors to promote the economic development.

The primary objective of safety in the workplace is to create a safe, healthy, and risk-free environment for all workers. Workplace safety involves the evaluation, analysis, prevention, and elimination of hazardous and dangerous elements from the workplace. Workplace safety programs evaluate and remove the risks and hazards relevant to the safety, well-being, and health of workers and other relevant individuals. Organizations develop health and safety standards due to several reasons including laws, regulatory requirements, organizational policies, and historical occurrences. Certain industries and their associations bind organizations to work for the benefit of their employees and they force organizations to focus on different safety related perspectives. Workplace injuries and illnesses caused by working conditions or environment can lead to lawsuits, high costs, and deterioration of the corporate image. There are instances when employees at times die because of severe working conditions. Employees might get injured because of certain safety and the lack of safety would be the only probable reason of this. Enhanced safety measures and appropriate quality of these measures can reduce this perspective to a considerable level.

Safety at the workplace enables organizations to comply with regulatory requirements and prevent high costs resulting from injuries and illnesses. Several corporations can consider the fact that these safety measures would save their health and medicinal costs that would arise when an employee would hurt him. They should take proactive measures earlier through which people can benefit from these perspectives. The management can maintain high levels of productivity and efficiency by creating a safe and healthy working

environment. Conversely, the employees work with dedication due to their perceptions regarding the commitment of the organization with respect to the wellbeing of the workers.

Organizations can ensure the efficiency of all workers and circumvent a considerable amount of costs by ensuring workplace safety and health. Organizations develop different strategies through which they set up different work place safety policies and benefit the workers through this. Workplace injuries and illnesses lead to compensation benefits, health insurance costs, hiring temporary replacements, lost work hours, and lawsuits. Lack of concentration would cost severe damage to an organization and they should sort such issues in order to attain proactive benefits. Business can save a considerable amount of costs by creating and maintaining a safe and healthy environment for all workers. Safeguarding the interests and wellbeing of the employees allows organizations to circumvent costs relevant to injuries and illnesses (Legg, Laird, Olsen, & Hasle, 2014). On the other hand, workplace safety instills a sense of commitment and dedication among the employees due to the safety assurance of the organization. The morale and motivation of the workers increase due to the implementation of rules that safeguard the health and interest of the employees. Employees feel that they are safe to work in this place, and through this perspective, they would perform well.

2. REVIEW OF THE LITERATURE

The ability to survey and assess the state of occupational safety and health has improved to levels greater than ever before. Various reports such as the annual series of occupational safety and health data publications from the Bureau of Labor Statistics (1997) and the National Institute of Occupational Safety and Health Worker Health Chartbook (2001) provide periodic updates on occupational injuries and illnesses. However, the inefficiencies in human resources caused by any circumstances, occurrences, and events can hinder the accomplishments of the organization. Organizations take all necessary measures to ensure the productivity of all workers and employees to maximize profits and achieve organizational objectives (Blair, 2013). Employees would feel that this event would occur again and this would create hurdles in their effective working process. Organizations need to create a safe and healthy working environment for all workers to ensure high levels of motivation and enhancement in efficiency (Stricoff & Groover, 2012). The government establishes and enforces the standards for the safety and health of all workers and their families through the Act. All public and private organizations have to comply with the rules, regulations, and standards prescribed in OSHA (Jung & Makowsky, 2014). The financial and moral aspects of workers' health and safety have a greater influence as compared to regulatory compliance. Corporations can save considerable costs by avoiding high insurance expenses, lawsuits, and employee replacement costs in the event of injuries and illnesses (Barling & Frone, 2003). Hall and Goodale (2007) proposed Health and Safety as 'conditions and factors that affect, or could affect the health and safety of employees or other workers (including temporary, and contract workers), visitors, or any other person in the workplace'. Dorland (2001) asserted 'health' as a state of optimal physical, mental and social well-being. It is not merely the absence of disease and infirmity. Occupational health and safety as contained in Encyclopaedia (1998) made it clear that 'job safety' as the interrelationship between people and work, material, equipment and machinery, environmental and economic consideration such as productivity. These terms 'health and safety' are considered together in the occupational context. Lucas (2007) is of the view that workplace is a physical location in which work related activities are performed under the control of the organization. According to Hughes et al, (2008) health and safety considers the working environment in a company and comprises all factors that impact the safety, health, and well-being of employees. It includes environmental hazards, unsafe working conditions or processes, drug and alcohol abuse, and workplace violence. health safety has been defined in various ways by different scholars. World Health Organisation (WHO) in 1995 defined occupational health to includes the actions for occupational medicine, occupational hygiene, occupational psychology, safety, physiotherapy, ergonomics, rehabilitation, etc. Safety on the other side involves the protection of people from physical injury. The International Occupational Hygiene Association (IOHA) generally defines occupational health and safety (OHS) as the science of anticipation, recognition, evaluation and control of hazards arising in or from the workplace that could impair the health and well-being of workers, taking into account the possible impact on the surrounding communities and the general environment (ILO, 2009). Therefore, occupational health and safety can be seen to concern the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations (ILO/WHO, 1995).

According to Harvey et al (2001) whole body vibration is commonly experienced whilst operating mobile equipment, such as load-haul-dump units, trucks, scrapers and diggers. This can cause or exacerbate pre-

existing spinal disorders. A poorly maintained roads and vehicle contribute to the problem. Aryeetey (2004) hand – arm vibration syndrome is also encountered with the use of vibrating tools such as air leg rock drills. Radon dust exposure in underground mining has increased the risk of lung cancer, but is now generally being managed by mine ventilation. Occupations involving substantial outdoor work appeared not to be associated with an increased risk of melanoma. According to Gottfredson (2004), infra-red exposures in pyro metallurgical processes contribute to heat stress and may induce cataracts. Electromagnetic fields are encountered in electrolytic smelting and refining processes. He further stressed that barometric pressure is elevated in deep underground mines and reduced at high altitude mines in AngloGold Obuasi mines. Increased barometric pressures in deep mines increase air temperatures, increase convective heat exchange and reduce sweat evaporation rates (Gottfredson, 2004). According to ILO (2005), organizational health and safety focuses on the development of specific measures and programmes, aimed at protecting employees in the course of performing their duties to maximize productivity and improve the overall organizational performance.

3. OBJECTIVES:

1. To study the opinion of respondents on various dimensions related to safety standards at work place.
2. To analyze the various factors those are effecton employee safety at work place.
3. To suggest suitable measures for employee safety at work place.

4. Research Methodology:

The quality of the project work will depend on the methodology adopted for the study. Methodology in turn depends upon the nature of the project work. The main strength of my report comes from the collecting, synthesizing and analyzing information, which must have a bearing on the defined problem. Research design is a statement or specification of procedures for collecting and analyzing the information required for the solution of some specification problem. It provides a scientific framework for conducting source research investigation. The present study is descriptive in nature.

4.1 NEED OF THE STUDY:

The workplace should be a safe environment where employees can do their jobs without the fear of injury or death. Unfortunately, sometimes accidents and even deaths do occur while on the job. There are many ways businesses can reduce the risk of workplace accidents through the implementation of various safety plans. However, the benefits of doing just that go above and beyond simply preventing accidents, although that is important.

4.2 HYPOTHESIS:

The following hypotheses are formulated for testing the relationship between the variables

- H1.** There is no significant average difference in the opinion of the respondents belongs to different positions with regard to all the dimensions related to safe /unsafe behavior.
- H2.** Nature of job does not play a vital role on all the dimensions related to safe / unsafe behavior.
- H3.** There is no significant change in the opinion of the respondents on all the dimensions related to safe / unsafe behavior with their respective experience.

4.3 SAMPLING METHOD:

The study has taken into consideration Executives and Non-Executives employees working in APGENCO Plant. All the major production departments are selected for the study. Out of total permanent employees, planning to collect the data from a sample at least of 25% executive employees and 20% Non-Executive employees are selected for the survey (Mainly emphasis on permanent employees). All the population size of APGENCO Plant divided into different stratus based on the activities of production and from each stratum the respondents have been chosen on stratified sampling basis. For below supervisory level and supervisory level using Convenience Sampling method to collect primary data through questionnaire where as for the middle management. Thus, total samples size is 140 respondents.

4.5 TOOLS OF ANALYSIS:

The data were fed to the computer. The tabulations and the results for analysis were done with the help of SPSS (Statistical Package for Social Sciences) version 24, and Microsoft Excel for Statistical measurements such as simple percentages, mean values and cross tabulations etc. To ascertain the difference in the average opinion score of the respondents by position wise and type of job. Correlation and Analysis of

variance (ANOVA) is a collection of statistical models and their associated procedures (such as "variation" among and between groups) used to analyze the differences among group means.

FACTOR ANALYSIS:

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.760
Bartlett's Test of Sphericity	Approx. Chi-Square	2597.909
	Df	465
	Sig.	.000

The Kaiser- Meyer- Olkin Measure of Sampling Adequacy Value was .760 indicating that the sample was adequate to consider the data as normally distributed.

Total						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.537	24.314	24.314	7.537	24.314	24.314
2	3.825	12.338	36.652	3.825	12.338	36.652
3	2.455	7.920	44.572	2.455	7.920	44.572
4	2.248	7.253	51.825	2.248	7.253	51.825
5	1.641	5.293	57.117	1.641	5.293	57.117
6	1.394	4.497	61.615	1.394	4.497	61.615
7	1.239	3.998	65.613	1.239	3.998	65.613
8	1.120	3.612	69.225	1.120	3.612	69.225
9	1.058	3.414	72.639	1.058	3.414	72.639
10	.919	2.965	75.605			
11	.820	2.644	78.249			
12	.758	2.445	80.694			
13	.743	2.396	83.090			
14	.628	2.026	85.116			
15	.568	1.833	86.949			
16	.506	1.632	88.581			
17	.497	1.602	90.184			
18	.393	1.269	91.453			
19	.369	1.189	92.642			
20	.332	1.072	93.713			
21	.290	.934	94.647			
22	.280	.903	95.551			
23	.252	.813	96.364			
24	.211	.682	97.046			
25	.203	.655	97.701			
26	.170	.549	98.250			
27	.151	.489	98.738			
28	.132	.425	99.163			
29	.112	.362	99.525			

30	.103	.332	99.857		
31	.044	.143	100.000		
Extraction Method: Principal Component Analysis.					

Extraction Method: Principal Component Analysis 9 factors have been extracted, based on the criterion that only factors with eigen values of 1 or more should be extracted. Cumulative percentage of variance explained column extracted 9 factors together account for 72.6% of the total variance.

Correlation:

		Correlations			
		Commitment	Compliance	Awareness	Behavior
Commitment	Pearson Correlation	1	.684**	.751**	.126
	Sig.(2-tailed)		.000	.000	.139
	N	140	140	140	140
Compliance	Pearson Correlation	.684**	1	.526**	.272**
	Sig.(2-tailed)	.000		.000	.001
	N	140	140	140	140
Awareness	Pearson Correlation	.751**	.526**	1	.330**
	Sig.(2-tailed)	.000	.000		.000
	N	140	140	140	140
Behavior	Pearson Correlation	.126	.272**	.330**	1
	Sig.(2-tailed)	.139	.001	.000	
	N	140	140	140	140

** . Correlation is significant at the 0.01 level (2-tailed).

From the above table it is inferred that the significant values of commitment, compliance, awareness and behavior shows that there is positive correlation among commitment, compliance, awareness and behavior at 0.01% level of significance.

CONCLUSION:

Conclusively, Majority of the people agree with the management visibly demonstrates an interest in the safety and health of their employees. The employees agree with the required PPEs (Personal Protective Equipment's) like safety shoes, helmets, goggles, gloves, etc. for my job are always available. People agree with the health and safety training program offered by the organization meet my needs a safety plan is necessary and it comprises of certain steps that would develop a safer workplace. Organizations should make sure that everyone else in the workplace is aware of the core problem. From the above study I can conclude that safety management plays a vital role in any organization and enhances the safety performance and thinking among the employees. The aim of employee safety at work place is ensuring that the maximization of efforts by the employees and the organization to improve and maintain safety at work place. More effective the safety management of organization more productive the organization would be. As a whole is a big organization with vast number of employees working there, to manage the health and safety of the employees of such a great number of people efficiently is a herculean task.

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