

## **LEVEL OF IMPLEMENTATION OF HEALTH AND SAFETY REGULATION IN FURNITURE INDUSTRY IN OYO STATE, NIGERIA**

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### **Abstract**

*This study assessed the level of implementation of safety regulations in furniture industry in Oyo State. The study adopted a descriptive survey research design which involves the use of questionnaire to determine the opinion of respondents. The target population of the study was 60 respondents that consist of 45 furniture makers and 15 upholstery makers. The entire population was used for the study. The instrument for data collection was a 38-item questionnaire; the instrument was validated by two experts in the Department of Industrial and Technology Education, Federal University of Technology, Minna, Niger State. Three research question were formulated to guide the study. The questionnaire was administered to the respondents by the researcher in Oyo State. The study was carried out in three local government areas of Oyo State. The data obtained were analyzed using mean and standard deviations. Finding of the study shows that level of implementation of safety and health regulations is high and as such the rate of accident is minimal. Also, loss of hearing, asbestos related diseases, chronic gastritis among others are the health related diseases in the furniture industry. According to the finding, smoking, eating and drinking should be prohibited in the workshop; prohibition of the use of mobile phones while working are some of the strategies to be adopted by furniture industry to safety rule and regulations. Based on these findings the following recommendations were made; Furniture makers should always wear appropriate and approved workshop dresses in the workshop so as to be safe and free from hazard, good ventilation system should be ensured in workshop, Government and non-government organizations should assist individual on safety gadgets and furniture makers should also participate in safety awareness program.*

**Keywords: Furniture, Industry, Implementation, Safety, Regulation.**

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### **Introduction**

Health is a sound state of the body and mind of people from illness resulting from the materials, processes or procedures used in the workplace, while safety is the protection of people from physical injury (Akanji & Lawal, 2012). Thus Occupational Health and Safety (OHS) is said to concern the physical and mental well-being of the individual at a place of work. Workplace in the furniture industry is most often than not referred to as workshop. Occupational safety and health issues become a primary concern to governments, employers, employees, and project participants alike, as Industry activities are likely to adversely affect the health of workers working in the industry (Sohail, 1997). Safety and health regulations ensure that organizations safe-guard the health and welfare of workers by protecting them from risks evolving from their works, and that employees use facilities and resources provided by their employers in a manner that will neither lead to property damage nor put them or others at risk.

The development of occupational health in developing countries, many of which were attained by political and economic emancipation that followed the path already laid down by their industrialized colonial masters (Emeharole and Iwok, 2007). Certain features in these newly emergent nations have mirrored the situations in their colonial masters. As a result, what one sees is not only a replication of some of the labour laws relating to occupational health and safety but also the pattern of occupational health as it exists in the countries of their former colonial masters with whom they still maintain strong economic ties. The health problems resulting from industrialization necessitated the services of health personnel to save the life of the employees in industries and other work environments.

Implementation is defined as a specified set of activities designed to put an activity or programme of known dimensions into practice. According to this definition, implementation processes are purposeful and are described in sufficient detail, such that an independent observer can detect the presence and strength of the “specific set of activities” related to implementation.

Furniture industry is an important part of the economy in many countries and often seen as a driver of economic growth especially in developing countries. Typically, furniture industry contributes to 11% of Gross Domestic Products (GDP) in most developing countries (Giang and Pheng, 2010). However many furniture activities are inherently safety and health risks such as working in a high place, working underground, working in confined spaces, handling load manually, handling hazardous substances, noises, dusts, using plant and equipment, fire, exposure to live cables, poor housekeeping and ergonomics. In an urban context, health and safety accidents are relatively higher due to the fact that high rise buildings remain predominant with the fast-growing complexities of domain-wide furniture projects to cope with modernizing cities arena and high demand for housing and office services and other infrastructure due to high urbanization. Despite its importance, therefore, furniture industry is considered as being risky with frequent and high accidents rate and ill-health problems to workers, practitioners and end user (Ajakaye, 2010)

Similarly, Sohail (1997) labeled furniture industry as very hazardous work environment where workers are two to three times more likely to die on the job than workers in other industries. Therefore, it is obvious that furniture is prone to highly hazardous as a result of the frequent high occurrence of accidents and fatalities.

Safety and health is an economic as well as humanitarian concern that requires proper management control. One of the most common things that have plagued this industry is that health and safety requires higher cost. Furniture managers tend to believe that introducing and executing measures that can ensure increase in health and safety will lead to higher cost, and hence lower the rate of profitability. However, it has been proved that investment in furniture safety and health actually increases the profitability by increasing productivity rates, boosting employee morale and decreasing attrition (Eze, 2006). Furniture safety and health management therefore deals with actions that can be taken at all levels to create an organizational setting in

which workers will be trained and motivated to perform safe and productive furniture work. The system should delineate responsibilities and accountabilities. It should also outline procedures for eliminating hazards and identifying potential hazards before they become the contributing factors to unfortunate accidents.

Modern homes contain relatively large amounts of upholstered furniture and mattresses. Such furniture is also common in hotels, hospitals, nursing homes, health institutions and prisons. In cinemas and theatres there are numerous rows of comfortable upholstered seats. In several of these buildings, the escape time in case of fire may be considerably long. It is therefore crucial that both the surface materials and the materials in the furniture do not contribute significantly to development and spread of fire, neither concerning heat release, flame spread nor smoke production.

Industrial safety in the context of occupational safety and health refers to the management of all operations and events within an industry, for protecting its employees and assets by minimizing hazards, risks and accidents. The relevant laws, compliance and best practices in the industry have most of the issues addressed for the best protection possible. Employers are to make sure that these are strictly adhered to in order to have maximum safety. It is based on this aforementioned background that it becomes necessary to carry out the research work on the level of implementation of safety regulations in furniture industries.

### **Statement of the Problem**

Hazard is something with potential to cause accident with varying severity ranging from cut and bruises to serious illness, disability or death. Accidents are by their nature unplanned and uncontrolled events (Alake 2009). Accident often occurs during working hour of medium and high rise furniture project activities. It results to loss of time of injured employee; cost of work stoppage of other employees from curiosity; sympathy, cost of providing of more assistance; loss of supervisory time from assisting injured employee; rearranging of work crews due to employee loss of life and delay of time of project execution. Many people have met their untimely death at furniture industry in Nigeria while others have become permanently disabled from injury (Alake 2009). Improper safety and health practices may put furniture industry workers into high risk in Oyo state. "The workplace kills more people than the roads does" this is the bold heading on a poster distributed in Wales, Australia (2002). This statement portrays the particularly worrisome increase in the rate of work related accidents and diseases in developing countries such as Nigeria. International Labor Organization ILO (2002) observed that many developing countries are experiencing an increase in occupational accidents as a result of rapid industrialization and reinforcement. In workshops, whether it is on plantation, in an office, factory, institution, etc. every worker across the globe is faced with a multitude of health hazard such as dust, gases, noise, vibration and extreme temperatures. With scientific advancement and technology development, in various area of design and manufacturing, the human life is increasingly being endangered on a daily basis (Rajender 2006). If the attitude of workers regarding safety is good, the worker will develop a safe

working habit. Safety does not cost, it pays. Virtually all workshops contain many potential hazards. There is no reliable data on accident cases in furniture industry, therefore the problem of this study is to investigate the implementation of safety and health regulations in furniture industry in Oyo State.

### **Purpose of the Study**

The purpose of this study was to determine the level of implementation of health and safety regulations in furniture industry in Oyo State. Specifically, the study sort to determine:

1. The level of implementation of health and safety regulations in furniture industry in Oyo State, Nigeria.
2. The health effect related to furniture industries in Oyo state, Nigeria.
3. Strategies to be adopted in ensuring furniture workers' compliance with safety rules and regulations in furniture workshops in Oyo State.

### **Research Questions**

The following research questions were formulated to guide the study:

1. What is the level of implementation of health and safety regulations enforced in furniture industry In Oyo state?
2. What are the health effects related to work environment in furniture industry in Oyo state, Nigeria
3. What are the strategies to be adopted to ensure furniture industry compliance to safety rules and regulations in workshop?

### **Methodology**

This study used a survey research design. According to Robson (1993), a survey design is described as the provision of answers to question that have been raised, to solve problems that have been posed or observed, to assess needs and set goals, to determine whether or not specific objectives have been met, to establish baselines against which future comparisons can be made, to analyze trends across time, and generally, to describe what exists, in what amount, and in what context. The population for this study is sixty 60 respondents; it comprises of forty-five (45) furniture makers, and fifteen (15) upholsterers. This study was carried out in Oyo state, and it covers Egbeda, Atiba and Ogbomoso South Local Government Areas of the state.

The instrument for data collection was a four-point structured questionnaire developed by the researcher. The instrument consists of sections A and B. Section A contains information about personal data of the respondent while section B contains three research questions. Research question one contains 15 items on perception of respondents on the level of implementation of health and safety regulation enforced in furniture industry. Research question two contains 12 items on the health effects related to furniture industry. While research question three contains 11 items which covered the perception of the respondent on the strategies to be adopted to ensure furniture's compliance to safety rules and regulations in the workshop. The instrument was validated by two lecturers in the Department of Industrial and Technology Education,

Federal University of Technology, Minna, Nigeria. Based on validators' suggestions, the instrument was corrected before it was administered. This was to ensure that the instrument is capable of giving necessary information needed for the study. 60 of the questionnaire were distributed to all the furniture and upholstery makers in the area of study. 96% of distributed copies of questionnaire were returned and used for data analyses. The responses from the respondent were tabulated and compared. Descriptive analysis (means and standard deviation) were used to analyzed data collected.

**Results**

**Research Question 1:** What is the level of implementation of safety and health regulations enforced in furniture industry In Oyo state?

**Table 1: Mean Responses on the Level of Implementation of Safety and Health Regulations Enforced in Furniture Industry in Oyo state**

S/No	Items	$\bar{x}_1$	SD <sub>1</sub>	$\bar{x}_2$	SD <sub>2</sub>	$\bar{x}_t$	SD <sub>t</sub>	Rem
1.	Understanding the operating instruction for the equipment before being used	3.53	0.50	3.04	0.47	3.29	0.49	Agree
2.	Check electric cable for leakages before connecting to power source	3.26	0.79	3.00	0.68	3.13	0.74	Agree
3.	Use of well fitted helmet	3.53	0.74	3.61	0.72	3.57	0.73	Agree
4.	Use of safety boots	3.73	0.44	3.52	0.69	3.68	0.57	Agree
5.	Switch off all electrical equipment or machines when not in use	3.74	0.46	3.62	0.71	3.71	0.59	Agree
6.	Clean oil spillage on the floor	3.60	0.50	3.52	0.83	3.56	0.67	Agree
7.	Always wear recommended workshop dresses	2.60	0.98	3.00	0.92	2.80	0.95	Agree
8.	Wear approved toxic dust respirator	3.33	0.40	3.01	0.37	3.19	0.39	Agree
9.	Use appropriate lifting device when lifting heavy object	3.80	0.41	2.36	0.39	3.08	0.40	Agree
10.	Ensure good ventilation system	3.66	0.47	3.53	0.38	3.60	0.43	Agree
11.	Wear gloves when handling wood	3.61	0.50	2.97	0.48	3.29	0.49	Agree
12.	Avoid inhalation of wood dusts by using local exhaust ventilation	3.13	0.83	3.01	0.61	3.07	0.72	Agree
13.	Avoid common sensitizing woods	3.40	0.82	3.21	0.55	3.31	0.68	Agree

**Key:**  $\bar{x}_1$  = Mean of FM; SD<sub>1</sub> = SD of FM;  $\bar{x}_2$  = Mean of Mean of Upholstery wokers; SD<sub>2</sub> = SD of Upholstery wokers;  $\bar{x}_t$  = Average mean ; SD<sub>t</sub> = Average SD

The result presented in Table 1 above reveals that the respondents agreed with all items in the table with mean range of 3.13– 3.80. This signifies that all the respondents Agreed to the implementation of safety and health regulations in furniture industry in Oyo state at an agreed level of implementation with an average mean of 3.47.

**Research Question Two:** What are the health effects related to work environment in furniture industry in Oyo state, Nigeria?

**Table 2: Mean Responses of the Furniture and Upholstery Makers on the Health Effect Related To Furniture Industry in Oyo State**

S/No.	Items	$\bar{x}$	SD	$\bar{x}_2$	SD <sub>2</sub>	$\bar{x}_t$	Remark
1	Chronic inhalation, causing peripheral nerve damage	3.37	0.77	3.21	0.73	3.29	Agree
2	Irritation of the eye	3.57	0.68	3.42	0.65	3.48	Agree
3	Shortness of breath	3.00	1.06	3.12	1.02	3.06	Agree
4	Skin diseases	2.66	1.16	2.53	1.06	2.58	Agree
5	Asbestos (asbestos related Diseases)	3.17	0.70	3.10	0.69	3.16	Agree
6	Hearing loss	3.33	0.80	3.11	0.78	3.22	Agree
7	Chronic gastritis	2.91	0.60	2.81	0.61	2.86	Agree
8	Chronic respiratory problems (bronchitis, asthma and pneumonia)	3.33	0.68	3.12	0.63	3.23	Agree
9	Gastrointestinal effect (nausea, appetite loss, vomiting and slow digestion)	3.04	0.67	3.01	0.59	3.03	Agree
10	Permanent back injury	3.40	0.68	3.31	0.66	3.36	Agree
11	Metal fume fever (fever muscle, ache and chest soreness)	3.26	0.97	3.16	0.93	3.21	Agree
12	Irritation of the nose	3.28	0.90	3.7	0.89	3.19	Agree

**Key:**  $\bar{x}_1$  = Mean of FM; SD<sub>1</sub> = SD of FM;  $\bar{x}_2$  = Mean of Mean of Upholstery wokers; SD<sub>2</sub> = SD of Upholstery wokers;  $\bar{x}_t$  = Average mean ; SD<sub>t</sub> = Average SD

The result presented in Table 2 above reveals that the respondents agreed with all items in the table with mean rating ranging from 2.66 to 3.57. This signifies that all the respondents agreed that all items in the questionnaire are the health effect related to furniture industry in Oyo State.

**Research Question Three:** What are the strategies to be adopted to ensure furniture industry compliance to safety rules and regulations in workshop?

**Table 3: Mean Responses of Respondents on the Strategies to be Adopted to Ensure Furniture Industry Compliance to Safety Rules and Regulations in Workshop**

S/No.	Items	$\bar{x}_1$	SD <sub>1</sub>	$\bar{x}_2$	SD <sub>2</sub>	$\bar{x}_t$	SD <sub>t</sub>	Rem
1	Safety poster should always be on display at strategic positions in the workshop	3.56	0.67	3.32	0.63	3.44	0.65	Agree
2	Related professional bodies should encourage the furniture industries to acquire and make use of safety gadgets	3.33	0.88	3.23	0.50	3.28	0.69	Agree
3	Government and non-governmental organizations should assists furniture industry with safety gadgets	3.04	0.67	3.00	0.53	3.02	0.60	Agree
4	Improper dressing should not be condoned in the workshop	3.73	0.73	3.13	0.62	3.43	0.68	Agree
5	Government should create an organization that will enforce	3.36	0.76	3.02	0.78	3.19	0.77	Agree

	workshop safety rules and regulations								
6	Safety orientation should be given to new workshop user before allowing then operate any machine or equipment	3.71	0.71	3.41	0.65	3.56	0.68	Agree	
7	The use of mobile phone while working in the workshop should be prohibited	3.62	0.41	3.17	0.73	3.40	0.57	Agree	
8	Furniture participation in safety awareness should be promoted	3.61	0.75	3.70	0.65	3.66	0.7	Agree	
9	Government should always organize safety training and re-training program for the workers	3.33	0.63	3.43	0.66	3.38	0.65	Agree	
10	Smoking, eating and drinking should be prohibited in the workshop	3.22	0.81	3.14	0.78	3.18	1.79	Agree	

**Key:**  $\bar{x}_1$  = Mean of FM;  $SD_1$  = SD of FM;  $\bar{x}_2$  = Mean of Mean of Upholstery Wokers;  $SD_2$  = SD of Upholstery wokers;  $\bar{x}_t$  = Average mean ;  $SD_t$  = Average SD

The result presented in Table 3 above reveals that the respondents agreed with all items in the table with mean range of 3.04 and 3.73. This signifies that all the respondents Agreed to the strategies to be adopted to ensure the implementation of safety rules and regulation in furniture industries in Oyo state.

### Discussion of Findings

The discussion of findings is based on the research questions of the study. The data analysis presented in table 1 which contains fifteen (13) items revealed that electric cables is checked for leakages before being connected to power source, Use of safety boots is enforced, clean and safety working environment is been implemented, ensuring good ventilation system and wearing of approved toxic dust respirator are safety precaution that furniture industries has implemented in order to be safe and free from accident in the workshop. This result is in line with the finding of Rajender (2006) who stated that safety is the first essential requirement in the workshop and every industrial personnel must learn the safety measures even before working with tools, equipment or machines. The researcher further stressed that safety is an attitude, and a form of mind of the workers, it is therefore noticed that the opinion of the respondent are similar over the level of implementation of safety and health as it is been enforced and regulated in furniture industries in Oyo State.

The data analysis presented in the table 2 which contain twelve (12) items revealed that Irritation of eye and nose, Metal fume fever (fever, muscle ache, coughing and fatigue), chronic respiratory problem (Asthma, bronchitis, pneumonia), gastrointestinal effect (appetite loss, vomiting and slow digestion) among others, are all health effects related to furniture industry. These findings are in line with the opinion of Oranu, Nwoke and Ogwo (2002) that

users of hand tools should always be careful when using these tools so as not to piece the skin. It was further stressed that hand tools do not usually cause accidents if it is in good working order, used correctly, carried carefully and store safely. All these health challenges could be avoided or even eliminated when safety is given high priority in the workshop.

The data analysis presented in table 3 which contain eleven (11) items revealed that improper dressing should not be allowed in the workshop, government should create an organization that will enforce safety rule and regulations, mobile phone should not be allowed in the workshop, smoking, drinking and eating should be prohibited in the workshop, furniture participation in safety awareness should be promoted. This findings agrees with Alake (1998) which state that lack of proper compliance to safety procedures among furniture makers has done tremendous harm not only to furniture workers but also to tools and individual in the workshop.

### **Conclusion and Recommendations**

The achievement of the stated objectives of ensuring furniture makers compliance to safety rules and regulations in workshops and health issues related to furniture industry depend largely on the development of safe conscious working habit, promotion of furniture maker's participation in safety awareness should not be ignored. The study shows that non-compliance to safety rules and regulations in workshop and not taking the necessary precaution are challenges that causes health problem in furniture industry especially among furniture makers in selected local government area of Oyo state. Based on the findings of this study, the following recommendations were made. Furniture makers should always wear appropriate and approved workshop dresses in the workshop so as to be safe and free from hazards, proper ventilation system should be provided in workshop so as to give room for less contaminated air to breathe in, government and non-government organizations should assist individual on safety gadgets, all electrical equipment and machines should be switched off when not in use and furniture makers should always seek for medical advice when they feel certain change about their health.

### **References**

- Ajakaye, S. O. (2010). Effective Labour Inspection as Correlate of Decent Work Agenda. A Post-Field Research Paper Submitted to the Department of Adult Education University of Ibadan Nigeria. *American Society of Safety Engineers*.
- Alake, J. T. (1998). Need for Safety Precaution in Secondary School Technical Workshops Technical Education Today (NBTE) 8 (1&2) ASSE (2002). White Paper Addressing the Return on Investment for Safety, *Health and Environment Management Programmers, Des Plaines Illinois. American society*
- Sohail, M. (1997). An Investigation into the Procurement of Urban Infrastructure in Developing Countries. *PHD Thesis, Loughborough University*



- Emeharole, P. O and Iwok, F. E. (2007) Occupational Stress Induced Health Problems; the Scene Among Employees of Essien Udim LGA. Akwa Ibom *Proceeding of NAHET Conference*.
- Oranu, R. N., Nwoke G. I. & Ogwo B. A. (2002). *Fundamentals of Metalwork Practice*. Enugu: *University of Nigeria Press Ltd*.
- Eze, F. C. (2006). *Human Resources Management in Nigeria, The Key Components*, Enugu, De-Verge Agencies Publication
- Goetzel, R. Z. Guindon A. M, Tuurshen, I. J. Ozminkowski, R. J. (2001), Health and Productivity Management; Establishing Key performance Measures, benchmarks and Best Practices, *Journal of Occupation and Environmental Medicine*, 43(1);10-17
- International Labour Organization (ILO 2002). Promotional Frame Work for Occupational Safety and Health, General Report 4(2), 93.
- Rajender, S. (2006) *Introduction to Basic Manufacturing Processes and Workshop Technology*, New Delhi: New Age International Limited Publishers.
- Akanji, R. B. & Lawal, O. I. (2012). Perceived Influence of Health Education on Occupational Health of Factory Workers in Lagos State, Nigeria. *British Journal of Arts and Social Sciences*. 8(I).