

## Health and Safety Standards Implementation on Construction Firms operating in Oyo State, Nigeria

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### -----ABSTRACT:-----

*This study aimed at identifying and cataloging the numerous managerial strategies adopted for the effective management of health and safety standards in construction firms operating in Oyo state, Nigeria. The research further examines the factors responsible for the level of implementation of health and safety regulation, assesses the current level of implementation of health and safety regulations in the Nigerian construction industry and highlighted the steps that could be taken to ensure that both management and staff enjoy the potential benefits of the full implementation of the regulations. Fifty (50) questionnaires were administered; 35 copies were returned and used for the analysis using SPSS version 16 and ranked using Mean Item Scoring to rank the variables. It concludes that government should set up a safety review commission and ensure implementation at the state level and mandate contractors to provide Health and safety plans and implement it on construction sites within the state. The study recommends that technology and economic growth increase the hazards in workplaces, therefore creating some workplaces that are unrecognized by the existing occupational health and safety standards also added to construction problems and major limitations to optimum implementation of health and safety standards are identify by this study are low level of skilled person power, lack of adequate legislation, insecurity, corruption and bribery and lack of governmental commitment and severity of penalties.*

**KEYWORDS:** Health and safety, Construction, Implementation, Standards, Construction Firms

Date of Submission: 04-02-2019

Date of acceptance: 20-02-2019

### I. INTRODUCTION

Safety in construction sites has always been measured by the level of implementation of safety rules and procedures and hazard control mechanisms. This system approach to safety management fails to address 'person', culture and behavior component associated with total health and safety management. Although Nigeria is enjoying relatively strong growth in construction activities, efforts towards ensuring improved safety performance have yielded minimal results. The enforcement of safety regulations is not widespread within the industry. More construction workers are killed, injured or suffer ill health than in any other industry (EASH, 2004). It is, however, disheartening according to Peter et al. (2016) that despite several efforts towards improving the health and safety status of Nigeria construction industry, continuous increases in the number of accidents both reported and unreported on construction sites still go unabated.

Strong safety records enhance a company's reputations make it more competitive and help to manage insurance lost over time. Fostering a successful safety culture however is a company-wide effort that require commitment and participation from the chief executive to project managers, superintendents, foremen and individual workers on the site, that commitment should extend to the selection of subcontractors who also embrace a strong safety ethic, particularly when a company is using a construction wrap up insurance program (George et al. 2013).

The health and safety performance of the industry remains a starting challenge in its efforts to tackle the developmental initiative of many nations like Nigeria. Workplace health and safety on its own is a global challenge to the sustainable development of our society and civilization (Okoye et al. 2014).

According to Onyejeyi (2011), occupational health and safety program was first introduced in Nigeria during the country was a British colony. These programs ensure that occupational health and safety worker were dispatched to industrial plants and other commercial undertakings including plantation monitoring. This initiative leads to legislation that included. Labor Act of 1974, the Factories Act of 1987 and the workman's compensation Act of 1987. Other relevant acts to occupational health and safety to Nigeria act are labor Act 1990 and workman's compensation act 2004 of the law of the Federation of Nigeria similarly, Adeogun et al.

(2013). Note that this act is not being enforced in Nigeria as evidenced by reports of unhealthy exposure to the risk of workers and employees in various organizations.

## **II. LITERATURE REVIEW**

### **The Nigeria Construction Industry**

All over the world, the construction industry is continually growing. This industry is mostly concerned with the development of civil works and heavy infrastructural provisions (roads, bridges, railways etc.) residential and commercial real estate and their maintenance therein. Thus, the continual growth can be explained by the dynamism of development and the need to accommodate social and demographic changes that happen over time. Nigeria construction industry has continued to occupy an important position in the Nigeria economy, NBS (2014).

According to NBS (2015), in Nigeria organized construction began in the early 1940's with a few foreign companies. The "oil boom" that followed about ten years after independence led to an upsurge in construction services as the country at that period opened up to foreign and local investments and obvious needs for infrastructure to drive economic growth. Foreign companies have dominated the industry since the 60's and 70's generation revenue for government and jobs for the citizenry. However, they have been known to import resources and even skilled labor as opposed to using locally manufactured resources and promoting local content.

### **Construction in the Nigeria Economy**

The construction industry is the backbone of economic and social development of every nation. Though it is forward and backward linkage. It connects all another sector of the economy and services as the rallying point for national development. For instance, at 2010 constant basic price, its contribution to the Nigeria gross domestic product (GDP) was 2.8% in 2010, 3.31% in 2011, 3.05% in 2012, 3.5% in 2013, 3.82% in 2014 and 3.88% in 2015.

Nigeria construction industry has continued to occupy an important position in the nation's economy, in 2012, construction sector contributed about #121,900,860 million to the gross fixed capital formation, and employed 6,913,536 personnel (NBS) 2010-2012, 2015a, excluding the casual workers. The range of professions in the industry is huge; it includes not only workers and managers on the site but also the architects, designers, engineers and other specialist professions. Despite its huge significance, the construction industry is still facing untold challenges especially in the developing country like Nigeria in terms of safety performance, however, the construction industry has performed abysmally [HSE 2015].

### **Health and Safety in Nigeria Construction Industry**

According to Dodo (2014), Health and safety is an inevitable aspect of construction due to its nature of being made up of the conglomerations of people from diverse background and disciplines with each individual output determining the level of success to be recorded at each construction stages. Despite the socio-economic significance of the construction sector, it has an inevitable reputation in terms of occupational health and safety. Accident and injury rate in developing country like Nigeria is generally considered to be higher than developed countries. This has been attributed to lack of appropriate consideration of health and safety management measures in the construction project delivery process. Belel et al., (2012), Adeogun and Okafor, (2013). Despite being a party to the Geneva occupational safety and health convention 1981, Nigeria continues to lack behind in the implementation of occupational health and safety practices. Dodo (2014). In Nigeria, health and safety has not been given the required attention to reduce or prevent hazards and accidents on construction sites, thereby posing serious threats to workers and even non workers creating the need for a quick solution for the issue to be addressed Oresegun 2009, opines that the attempt to determine the impact of health and safety on Construction and its correlation with project performance, labor motivation and safety plan is as a result of non compliance of Nigeria construction companies with environmental, health and safety. Okeola (2009), asserts that health and safety in construction is all about preventing people from being killed or injured at work or becoming ill through appropriate precaution and providing a satisfactory working environment, there have been occupational health and safety legislation governing work and environments in Nigeria (e.g. factories Act of 1990 and employees compensation Act of 2011), some have attributed the poor safety performance to dysfunctional health and safety laws and regulation (Diugwu et. al. 2012).

### **Health and Safety Performance in the Construction Industry**

The construction industry is one of the most hazardous industries due to the unique nature of its products and the processes involved in it. (Okoye et. al. 2014) suggest that it is one of the industries with every high accident rate but has been intensifying efforts toward improving its health and safety performance,

however, these efforts have been shifted from monitoring safety performance to proactive continuous improvement on safety performance. Idoro (2011), attributed that safety performance is the occupational health and safety (OHS) conditions at a construction site.

### **Health and Safety Management in Construction Industry**

Alberta (2015), define health and safety management system as a process put in place by an employer to minimize the risk of injury and illness. The construction industry is prone to many hazards and accident potential construction materials, tools, machinery, and handling technique all come with their dangers. Therefore ensuring the maximum safety of the construction site is as important as any other aspect of successfully executing a construction project (Emiedafe 2017). According to Fewings (2013), good health and safety performance in the construction industries of developed countries can largely be attributed to the systematic implementation of health and safety management practices stipulated in health and safety management system. An effective component of health and safety management system must have the following:

- Health and safety training and instruction
- Clearly demonstrated and management commitment and written company policy
- Emergency response planning
- Identifying hazards and managing risk
- Management system administration
- Inspection of premises, equipment, workplace and work practices
- System audit
- Control in measures to eliminate or reduce the risks to workers from hazards

### **Health and Safety Regulations in the Construction industry**

Chudley et al., (2006) define construction regulation as statutory instrument setting out the minimum legal requirement for construction workers and relate primarily the health, safety, and welfare of the workforce which must be considered when planning construction operations and during the actual construction period. Okoye & Okolie (2014) suggest that the need to institute construction health and safety regulations was borne out of the rate with which accidents occur on construction sites with impunity with no one being held responsible and in response to work-related death and injuries. Regulations cannot on its own be effective without enforcement.

### **The Proposed National Building Code and Safety in the Nigeria Built Environment**

The National building code is a set of rules that specify the minimum standards for constructed objects such as buildings and non- building structures. The purpose of building codes is to protect public health, safety, and general welfare as they relate to the construction and occupancy of building structures. Taiwo (2010). The National building code (NBC) is a set of minimum standards for building pre-design, designs construction and post-construction stages with a view to ensuring quality, safety, and proficiency in the building industry. It applies to all matters concerning the design and specification, alteration construction costing, demolition, location and use of any building or structure for existing or proposed building work within the federal republic of Nigeria. (NBC 2006).

### **Importance of Building Code**

According to Taiwo (2010). The need to involve national building code arose from the following existing conditions of our cities and environment and to promote safety and qualitative housing for every Nigeria.

- a) The incessant collapse of buildings, fire infernos, built environment abuse and other disasters
- b) The dearth of referenced design standards for professionals
- c) The absence of planning of our towns and cities
- d) Lack of maintenance culture
- e) Use of non-professionals and quakes
- f) Use of untested products and materials (National Building Code 2006)

### **Data Presentation and Discussion of Results**

**Table 2: Implementation of Health and Safety Regulations in the Nigeria construction industry**

<b>Health and safety requirement by law</b>	<b>N</b>	<b>Mean score</b>	<b>Rank</b>
Proper site planning before the commencement of work	35	4.09	1
Removing/returning of tools to store after work	35	3.91	2
Provision of first aid treatment	35	3.83	3
Provision of helmets and reflective jacket	35	3.77	4
Provision of site hoarding	35	3.74	5
Provision of safety boot and replacement of old ones	35	3.71	6

Constant maintenance of vehicles, equipment, and plants to reduce pollution and accident	35	3.69	7
Warning signs placed is show danger spots and restricted area	35	3.66	8
Use of safety belt while climbing the scaffold	35	3.57	9
Constant safety orientation and training for the workers	35	3.54	10
Constant inspection and assessment of tool, plants, and equipment before use	35	3.51	11
Imposition of penalties of non -compliance with safety rule and for nonuse of PPE	35	3.51	11
An efficient system if waste disposal	35	3.46	13
Special storage for hazardous material	35	3.40	14
Provision of drinkable and clean water for workers	35	3.34	15
Provision of Ear muffs and safety googles	35	3.29	16

**Source: Researcher field survey, (2018)**

The above table shows the level of implementation of health and safety regulations within construction companies operating in Oyo state. Ranked first was proper site planning before the commencement of the work with the mean score value of 4.09, and the removing /returning of tools to store after work ranked second having a mean value of 3.91 Provision of drinkable and clean water for workers and Provision of ear muff and safety Goggles for workmen on site came least with mean value of 3.34 and 3.29 respectively this is an indication that construction firms strongly agrees that Proper site planning before commencement of work is essential.

**Table 3: Reasons for the current level of Implementation of Health and Safety Rules in the Nigeria Construction Industry**

<b>Factors responsible for the current level of implementation of H &amp; S rules</b>	<b>N</b>	<b>Mean score</b>	<b>Rank</b>
Extra expenses are incurred in providing PPE	35	3.97	1
The most company does not employ safety officers	35	3.69	2
The level of health and safety is not adequate	35	3.57	3
There is no proper enforcement of PPE on workmen	35	3.57	3
Most companies do not have a safety guide or policy	35	3.54	5
Use of PPE slow down, give workers the freedom to work	35	3.46	6
Workers do not like health and safety training	35	3.34	7
Workers do not like training on health and safety precautions	35	3.31	8
Management of most company are themselves ignorant of health and safety requirement	35	3.31	8
The provision of warning signs to appropriate places around the construction site is not adequate	35	3.11	10

**Source: Researcher field survey, (2018)**

Table 3 above show the factors responsible for the current level of implementation of health and safety rules in the Nigeria construction industry. It was observed that extra expenses are incurred in providing personal protective equipment on site which has 3.97 as its mean score value and ranked first. Second, on the list has 3.69 mean score which says the most company does not employ safety officers to carry out their safety responsibilities.

Few of the construction firms operating in Oyo State feel that provision of warning signs to appropriate places around the construction site are not adequate and are considered not significant, this frame least on the table as shown above with the mean value of 3.11 and ranked 10<sup>th</sup>.

**Table 4: Steps to be taken for full enjoyment by staff and management on Implementing Health and Safety Rules**

<b>Steps to be taken for the implementation of health and safety regulations</b>	<b>N</b>	<b>Mean score</b>	<b>Rank</b>
Government and professional bodies should set up safety review committee	35	4.46	1
Officers from appropriate authority should visit the site periodically to ensure enforcement	35	4.46	1
Manual/Handbook for quick guide must be available	35	4.43	3
Requirement and training of enforcement officer to orientate workers on how to handle machinery with care	35	4.40	4
The government should enforce occupational health and safety at all level	35	4.37	5

All Built Environment Professional institutes and Registration bodies should as a matter of law include health and safety training as a test in their registration and CPD processes	35	4.20	6
Safety talk should be done every day	35	4.20	6

**Source: Researcher field survey, 2018.**

Table 4 above describes steps to be taken for the implementation of health and safety regulations in the Nigeria construction industry. It was observed that the most important steps are that Government and Professional bodies should setup safety review committee to be moving around all the construction site in each state, this has a mean score of 4.46 on the table and officers from appropriate authority should visit the site periodically to ensure enforcement of health and safety rules.

### III. SUMMARY OF FINDINGS

A cursory look at the result above reveals an overall poor implementation of health and safety regulation among the construction firms in Oyo state, Nigeria. The study revealed that there is no adequate provision of warning signs to appropriate places around the construction sites, most workers does not like training on safety precautions, it also examine that all professional bodies should as a matter of law include health and safety training as test in their registration and construction professional development (CPD) processes, safety talk should be done frequently, there should be special storage for hazardous materials on site, there should be provision of ear muff and safety goggles for workers while working with heavy machine or dust and Construction managers are in unique position to eliminate ignorant of health and safety requirement in the construction industry.

### IV. CONCLUSION

This research took a scope on the implementation of health and safety standards in the Nigeria construction industry. A special consideration was made on construction firm operating in Oyo states. The result from the survey suggest that few Health and safety standard are implemented by construction worker and management, the health and safety records in Oyo state needs to be upgraded and monitored so that workers could be prevented from all the hazards. The action is needed by the construction management to enhance health and safety management in all the elements of health and safety management. The support of state government and other relevant professional bodies (e.g. through the provision of training programs, initiating and tightening of health and safety regulation) would be helpful. However, the provisions of the national building code as regards to health and safety on construction site is very obvious, adherence to that provision will definitely maximize safety performance of our construction sites.

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Musa Shamsudeen" Health and Safety Standards Implementation on Construction Firms operating in Oyo State, Nigeria" The International Journal of Engineering and Science (IJES), 8.2 (2019): 47-51