

ENFORCEMENT AND EDUCATION OF HEALTH AND SAFETY IN THE CONSTRUCTION INDUSTRY IN NIGERIA

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ABSTRACT

The construction industries are one of the major sectors that record for the most injuries and death in Nigeria. Most of the accidents are as a result of the negligence to health and safety regulation, lack of knowledge on what those regulations are on the side of the workers, lack of implementation and educating of the workers on what those health and safety regulations by the contractor and also lack of monitoring on what happens in the construction sites and enforcement of this regulation by the state or construction ministries. This paper reviews the enforcement and educating of health and safety in Nigerian constructions sites, other similar literature were checked through desk literature search and some data were collected from them; the indicate that reason why the health and safety are implemented is as a result of bad governance, negligence by the contractor and the government, corruption, and lack of establishment method to check the adherence to health and safety regulations by the government and the workers do not know what those regulations are and how to apply them. While this study encourages educating workers on the regulation of health and safety and suggesting ways in which the government can enforce the regulation.

Keywords: Safety, Enforcement, Education, Health, Construction.

INTRODUCTION

The construction industry is one of the lucrative, fast-growing industries in Nigeria and it is projected to aid the growing economy (Adeyemo & Smallwood, 2017) due to the development taking place in the country and the cultural fact that “most working-class individual wants to own a house”. Although the construction industry is very important to the economy, it has recorded for one of most accident common industry; this is due to lack of understanding of health and safety regulation by the workers or the knowledge on how to work with personal protective equipment, negligence, the inaccurate record of an accident report in the construction site and lack of enforcement of the health and safety regulation by the (Idoro, 2008). Worldwide; workplace accident amounts to 3.9%. (Okoye & Okolie, 2014). Contractors are in charge of the most construction project in Nigeria, they govern the project, they hire the necessary workers, and they are also one of the chief persons that implement health and safety regulation in the construction site. (Idoro, 2008)

The contractors are not inclined to give an accurate report of accidents that occur in construction sites nor do they document properly those records, because they are concerned about portraying a good representation for the company or what the image of the company will be seen as. As a result of the lack of this information, good implement concerning health and safety will not be made by those responsible. (Marosszeky et al., 2004)

This study aims to check the enforcement and educating practices by the construction companies and government institutions or the influence they have on health and safety performance in construction in Nigeria, to evaluate the limitations of enforcement of health

and safety in construction, education of workers or if they understand what safety measures to employ in any given working situation, to emphasize the power of government institutions and contractors in creating a safe working environment and to suggest excellent measures to increase enforcing and educating health and safety in construction in Nigeria.

METHODOLOGY

The research method used for this paper is; reviewing related literature (journals, articles and papers) on health and safety, I got information from peer-reviewed articles, journals, and reports using Web of Science SM, International Journal of Environment and Pollution Research, PubMed, Google, Google scholar, and document reference lists.

RESULTS AND DISCUSSIONS

Enforcement of health and safety in construction

The government institution and the contractor are the ones that have the chief responsibility of enforcing the regulation that will ensure that a construction environment is a safe place (Laryea, 2010). In 2012 a bill regarding health, safety, labor, and welfare was passed and its purpose is to enable the national council for health and safety to enforce the health and safety regulations in accordance to the bill in workplaces, propagate health and safety awareness, and promote the importance lives and properties (Umeokafor et al., 2014). A study shows that 55% of workers are not aware of who or which body is responsible for the enforcement of health and safety, other workers believe it is some government or private organization, this shows that construction workers are aware of whose responsibility to enforce health and safety regulations and that also indicates that there non or little enforce of such regulations in the study region (Diugwu et al., 2012). Insufficient enforcement and a lack of practicable regulation is the reason for the current state of health and safety in construction sites and the most dangerous exposure to the accident is less protected (Waziri et al., 2015). Construction companies and workers terms not to obey or comply with the health and safety regulations, knowing that no punishment will befall them as a result of negligence to the safety regulations (Idowu & Iyabo, 2017). The enforcement of safety regulation involves sending a warning to lawbreakers; closing of factories that are defaulting is also an enforcement measure. The above measures hardly take place in Nigeria according to many studies. Constant supervision of construction and monthly report submission to government authorizes is a way that will help safety enforcement in Nigeria (Kawuwa et al., 2018). According to another study, 9 out of 30 construction companies do not obey the health and safety regulation during construction operations (Dodo, 2014).

Table 1. Factors that affect the enforcement of health and safety regulation.

<i>Reference</i>	<i>Year</i>	<i>Country</i>	<i>Factors</i>
(Windapo, 2011)	2011	South Africa	Building or site type. The inclination of the contractor.
(Othman, 2012)	2012	South Africa	Failure to identify the present risk on-site by the contractor.
(Akinwale & Olusanya, 2016)	2016	Nigeria	Not taking safety responsibility of workers
(Okoye et al., 2016)	2016	Nigeria	Health and safety regulation negligence by contractors.
(Williams et al., 2018)	2018	Malaysia	Poor safety apprehension of both workers and contractors.
(Ogundipe et al., 2018)	2018	Nigeria	The deficient commitment of safety mangers and inadequate supervision on site.

Health and safety level of awareness

The level of awareness of health and safety regulation and the know-how around the construction site is important to ensuring the reduction of accidents and promoting a safety culture. Health and safety awareness is when a worker or management has a proper understanding of the risk, accidents that are associated with the construction site, and how to control those (Musonda & Smallwood, 2018) and they are also aware of the safety regulations and its implementations. The reason for the lack of compliance could be that the workers are not aware of the health and safety regulation (Aniekwu, 2007). It is a lack of experience that make workers take dangerous actions in construction site according to behavior-based safety (Podgórski, 2010). A study's findings indicate that small companies, more than 50% of workers don't know the health and safety problem in their companies and above 70% do not attend the health and safety training protocol required for the job but this number is much lower for big companies (Chatterjee % Roy, 2014). 68% of workers are not aware of the health and safety regulations and what their employers have provided to ensure safety in the construction site, a large number of the workers lack proper information regarding hazardous materials in the site according to a study (Diugwu et al., 2012).

Lack of or little awareness of health and safety by the contractor and low attitude towards safety by the workers is a major factor obstruct growth in the industry (Arum et al., 2019). In the determination of a contractor for a construction project is highly biased. The awareness ability of the contractor to manage health and safety risk is not considered as a qualification requirement for the job. Safety training programs for workers on how to use protective tools, sustenance, overseeing operations, hazard prevention, and control in the site to ensure a safe environment rarely are a priority the construction companies (Olatunji, et al., 2007). Proper education or training on safety materials in the site is key to ensuring a safe working environment. Due to the low level of education of workers and the lack of awareness of the importance of PPE, many workers do not like to wear them (Vitharana et al., 2015). A study show that students are not taught on health and safety awareness in the university, Those students go on to become contractors and supervisors in the future in the construction site and lack of health and safety awareness by those in charge is the major reason for accidents in the site (Afolabi et al., 2016).

Roles of government and construction companies in creating a safe working environment

The government, construction companies, and contractors have a huge role to play in the insurance of safety practice in construction sites because they have power, influence, decision making, monitoring, and the ability to punish or enforce health and safety measures. The designer of the project can design the safety of the work environment and safety of workers in the site through their design. The process of designing this safety is identifying the accident or hazards that could occur depending on the project and remove it or reduce its occurrence (Mroszczyk & Gambatese, 2006). A study indicates that owners or top management of Construction companies are not aware of the poor safety practices in the construction site. The contractor must inform the top management about these issues, ask them to put resources into safety, and also receive proper training on health and safety if they lack such (Tam et al., 2004). The contractors are supposed to find new ways to improve safety in the site, the government authorizes should not necessarily relay or wait on them to make those improvements but out pressure by legislation (Cheah, 2007). Study findings suggest that construction firms with workers working more than 50 hours every week are more likely to have more accident, companies with safety managers that are well skilled in safety have lesser accidents, companies with safety budget above \$1000 have a lesser accident in the site and one's with a safety program that is beyond the required or medicated

health and safety regulations (Abudayyeh et al., 2006). A study suggests that a designer can increase safety in the construction site by checking their design work regularly for safety, provision of safety documents to workers, help the owners in creating a safe environment, check if workers respond to safety and regular inspections of the construction site for safety. Companies that design safety do not so much money as suggested by others (Toole, 2005). In the UK it mandatory that designer partake in identifying the risks in construction sites and seek ways to reduce them (Gambatese & Hinze, 1999). If the owners recognize the importance of designing safety, it will create a safe environment and aid the designer in their jobs (Gambatese et al., 2005).

The studies show that there is little or negligence in the enforcement of health and safety regulations in many construction sites in Nigeria by the government, constructions companies and contractors as result accidents that could have been prevented if there was enforcement occurs in many sites and there are some factors that affect the enforcement of health and safety in table 1. Most of these accidents are either not be recorded or reported. Workers in some construction sites are not aware of whose responsibility it is to enforce health and safety regulations, so they are not inclined to follow any health and safety regulations that are if they are aware of the regulations. The study also reveals that construction workers are not aware of the health and safety regulations and even when trainers are organized, a large number of the workers don't attend. There is variation in the level of awareness in companies, one of the major factors that contribute to this, is the size of the cooperation. Larger organizations have a sufficiently high level of awareness while the smaller organization has a relatively low level of awareness. Some workers take unsafe decisions during their work in the construction site that could lead to an accident because they lack the experience or they neglect the provide safety measure. The knowledge of hazardous materials by the workers is also a major issue in the construction site the study shows.

The study shows that lack of knowledge of health and safety or low inclination towards the contactor or construction companies has a serious consequence on the safety of the worker and the people in the construction site. Construction companies' lack of organized health and safety training for workers results in the lack of awareness or knowledge about the proper measures to ensure safety. The lack of knowledge of health and safety starts from the university level for civil engineering students the study states, most safety courses are taught properly at the postgraduate level in the universities. Studies also show that lack of safety design is a result of a lack of designers' knowledge. The studies reveal that government bodies, construction companies, and contractors have huge responsibility, power, and influence in the implementations of health and safety in the construction site. They determine whether or not safety is a priority in the construction site or if a safety measure will be undertaken during work. They can design safety, they can partake in identifying risks in the site they determine the working hours which are a factor to accident occurrence, and they determine the number of resources that go into ensuring safety the studies show.

CONCLUSIONS

Health and safety during the construction process are very important and key for the protection of construction personals, the lack of it has a devastating consequence and the state of it in Nigeria need immediate attention. The studies examined show that there is a need for health and safety regulation enforcement, education, or increase awareness of health and safety within construction workers, contractors and designers and it also shows how important the role of government, construction companies, and contractors in ensuring safety in the construction site in Nigeria. The major challenge is lack enforcement by the authorities

and low level of awareness of health and safety by the construction personals. The following ways are means that can help reduce some of the construction challenges Nigeria is facing:

1. The government should make laws that are relative to the current state of things in the country, set a system for constant monitoring of construction sites and punishment for those companies or individuals who don't comply with the regulation.
2. Design safety, provide all the necessary safety signs needed in the site, employ qualified workers, organize regular staff safety training and the staff should be taught by professional bodies and workers who are qualified to perform the task should be allowed to do so.
3. Sound knowledge of health and safety by a prospective contractor or site manager should be considered when employing them and university civil engineering undergraduate students should be taught health and safety during their studies.

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