

# Assessing Safety Issues Experienced by Nigerian Building Site Worker

Akanbi Toyin Ibrahim<sup>1</sup>, Abdulrashid Sirajo<sup>1</sup>  
and Aliyu Hassan Ibrahim<sup>2\*</sup>

<sup>1</sup>Principal Lecturer, Department of Building

<sup>2</sup>Department of Environmental Science, College of Environmental Studies  
Kaduna Polytechnic, Kaduna, Nigeria

\*Corresponding author details: Aliyu Hassan Ibrahim;  
[aliyuibrahim@kadunapolytechnic.edu.ng](mailto:aliyuibrahim@kadunapolytechnic.edu.ng)

## ABSTRACT

The term Building Worker refers to any personnel engaged in the physical construction of a building. Just like every other occupation they are faced with challenges in performing their duties. The safety of building construction workers on sites is key to achieving success in any project, when these workers are physically healthy work can go on smoothly as virtually all works on site are dependent on the workers for implementation. Numerous building projects are situated in Abuja, Nigeria with little or no attention being paid to safety issues. This research looked into the level of safety implementation of the Construction companies and the level of safety awareness of the workers in Abuja city. 80 questionnaires were issued, 69 (85%) copies were retrieved. The findings revealed that building site workers in Nigeria lacked the requisite trainings needed to perform their trades. The Construction company's practice of not providing the basic safety materials and facilities was also exposed. The older workers were aware of their rights as employees on site. Lack of safety training was the major cause of accidents among the workers with minor injuries being mostly experienced. The Unqualified laborers were most frequently engaged in accidents on the sites. Accidents mainly occurred among workers less than 20 years of age. The Governmental agencies need to step up their enforcement activities in order to adequately protect these workers, the available safety regulations need updating and if possible solely Nigerian regulations should be designed.

**Keywords:** safety; building construction workers; Nigerian construction industry.

## INTRODUCTION

The safety of building construction workers on building sites is paramount to achieving success in any project. Importance of safety in any kind of construction activity is unparalleled, as stated by John, (2006). Only when these workers are in a sound state of mind and are physically healthy that work can go on smoothly as virtually all works on site are dependent on the workers for implementation. Occurrence of accidents or injury to workers tends to demoralize the workers and in some cases leads to suspension of construction activities. Gray (1990), defined safety as the condition of being free from harm it is key to achieving success in construction. The building construction sector is a very hazardous one, as other construction sectors experiencing very frequent accident cases. This sector is very vital to all other industries as it provides the environment for their operation (Jimoh, 2012). Shelter is one of man's basic necessity in life, the quest for the provision of adequate housing has led to an increase in the activities of the building construction industry in Nigeria. Little or no attention is paid to the safety of the workers who see to the realization of these buildings, they are mostly illiterate and are ignorant of their rights and privileges.

## Statement of Problem

Accidents occur frequently on building construction sites in Nigeria with little or no documentation. While some of

these accidents are caused by the workers themselves (due to illiteracy, lack of commitment to work etc.) some are caused as a result of the poor or none safety measures employed by the construction companies/site staff on site. Farooqui (2008) in a research about the casualty trends in the cities of Lagos, Abuja and Port Harcourt reported the nature of casualties experienced in the building construction sector within the period of 2000-2010. His research revealed Lagos had the highest casualty rates followed by Abuja and lastly Port Harcourt city. This 4 research seeks to point out safety issues faced by workers on building sites and thereafter develop effective strategies aimed at addressing them.

## Scope and Objectives

This study will deal with the safety of Nigerian building construction site workers, with the purpose of establishing critical issues affecting their welfare on site, identifying shortcomings on the building sites and making recommendations towards addressing the shortcomings. This work aims at:

- Develop a theoretical framework which confronts safety issues experienced by a typical Nigerian building site worker.

The objectives are:

- Identifying the importance of safety in building construction sites.

- Controlling hazardous working conditions and unsafe worker activities.
- Evaluating construction contractor's safety implementation programs.

## LITERATURE REVIEW

### The Role of Professionals in Ensuring Safety on Building Construction Sites

It is the duty of all professionals on site to guaranty a safe atmosphere for effective implementation of building activities. The professionals include the contractors, design professionals (Architects and Engineers) etc. Studies have shown that most construction accidents can be reduced, avoided or even eliminated if effective decisions are made during the design and planning phase of a project (Hecker, 2005).

#### The Role of the Contractor in Site safety

The success of any project depends on the amount of planning and quality of decisions taken on site. Virtually all construction accidents occur as a result of lack of proper training, deficient enforcement of safety, unsafe equipments, unsafe site conditions and poor attitude towards safety (Toole, 2002). Generally, the role of contractors is unclear as they tend to transfer their responsibilities to others. The prime contractor is charged with the responsibility of overall site safety (OSHA 1926.16). They have the highest influence on site safety because they coordinate, direct and monitor the work of other subcontractors. The subcontractors are usually saddled with tasks of providing labour on site, as such if they create hazards, they must fashion out measures to protect their employees.

#### The Role of Design Professionals in Site Safety

The Design professionals are the Architects or Structural Engineers who design the building plans to be implemented on site. Design professional's primary role in construction is the design of buildings. Most at times workers safety is left solely to the contractors, but the design professionals can influence safety on construction sites by taking effective decisions while designing structures. International labour office in 1985 recommended that designers should consider the safety of workers who will work on sites to erect the buildings they design. It is suggested that the designers should point out those sections in their designs which can result in accidents in the process of implementation, giving adequate guidelines and instructions on how they can be safely implemented.

#### Building Construction Worker

The term building construction worker refers to a person engaged in the physical construction of a building. These individuals could be either skilled or unskilled, depending on the nature of work they are expected to perform on the building site. (sokanu.com). Building construction workers perform a wide range of tasks, although virtually all these tasks require some form of training and experience, some can be performed with little or no skills. The typical building site worker executes some basic tasks like:

- Load or unload building materials to be used on site.
- Clean and prepare construction sites by removing all the debris and potential hazards around the site (Wahab, 2006).
- Operate machines used in construction works (concrete mixers, cranes etc.). A variety of trades are usually generally grouped as building construction works, they include the following:

- (1) Masons (Brick layers).
- (2) Carpenters.
- (3) Electricians.
- (4) Painters.
- (5) Plumbers.
- (6) Roofers.
- (7) Steel benders.
- (8) Labourers.
- (9) Tillers etc

#### History of Safety Regulations

The evolution of Occupational Health and Safety services led to implementation of laws and regulations in 1833 among the English. They put to a halt believe that accidents were inevitable and predestined to happen, they argued that these accidents could be controlled. They suggested that ignorance, carelessness of the workers led to accidents in the then expanding mechanized world. Hence they advocated safety education to help reduce suffering of factory workers. The passage of the "Health and Morals Act" in 1802 by the British Parliament marked the beginning of such laws. The act aimed at limiting the hours of work for children and providing for inspection of the factories to assess the working conditions. It demanded for adequate protection of workers from injuries. Several trades were grouped under the British Factories Act, in 1864 the act was later widened to include several industries and places which employed more than 50 persons. It prevented workers from eating in poisonous or unpleasant plant atmosphere hence it required artificial ventilation to be put in place for such factories. The inspection of factories began in 1897, this led to the adoption of workers compensation. Idoro (2007) revealed that in the United States of America, E.I du Pont by his singular act of stating that people must understand the hazards in which they live at his gun powder factory in the year 1802 was one of the earliest documented individual acts of safety. This act was a mere statement and not a regulation. Until the year 1916, all works were regulated with the "common law", the common laws allocated the workers safety to themselves. The employers were not liable in any form. The worker compensation law was established after 1916 by the American government, this law enforced the employers to be liable for the workplace safety issues. The employers were subjected to catering for the medical care and lost wages of the workers during their absence from work. This was deemed to be a moral responsibility before being a duty (Idoro, 2008). This forced payment made the employers more safety conscious hence translating into reduced accidents rates, death rates declined too (Adebayo, 2014). The Occupational Safety and Health Act (OSHAct) became effective in the United States of America in April 1971 being applied to more than 5 million businesses and about 60 million workers (Hammers *et al.*, 2000).

#### Construction Accidents and Worker Compensation

Workers compensation is basically an insurance policy which covers injuries sustained by workers on site. If by any means however the employer (Contractor) is liable to blame in any way possible as to the cause of the injury legal means could be used in resolving such cases (Mitchel and Goff, 2012). In Nigeria, it is widely believed that most compensation are based on the Contractors generosity. This is aided because of the high rate of unemployment and underdevelopment which cuts across the country.

#### Worker Compensations

Worker compensation is a collection of laws which clearly state precise benefits injured employees are entitled to in case of occurrence of any accidents during work hours or on site (Adeniye, 2020). Findlwa.com a leading online resource for legal issues presented some entitlements to workers as follows:

- **Medical Care:** The worker has the right to all available medical care to cure or reduce the effect of the injury. All medical bills drug prescriptions and even transportation to and from the Hospital is to be covered by the employer. The Worker is however bound by the worker compensation 16 benefits to use the company Doctor though they could seek for care elsewhere after 30 days with a written request to that effect.
- **Temporary Disability:** If the nature of injury sustained entails the worker taking some time off the job, the worker might be entitled to temporary disability payments, though this payment will not be up to the normal wages earned. It normally equals about two-thirds of the workers' weekly pay
- **Permanent Disability:** Workers are entitled to some monetary benefits in cases when they fail to recover fully from injuries sustained. This form of disability implies that the worker cannot compete in the labour market with other healthy workers. In order to determine the amount to be paid as compensation, the age of the affected worker, occupation and earnings are usually considered. Such a worker might also be trained in other vocations in which they can perform with the disability in order to help serve as a source of income in the future.

For effectiveness of such claims by the workers, they should ensure the following:

- Report the injuries to their employers, best done in writing keeping a personal copy for record purposes.
- Complete a claims form, also keep a copy of the claims form filled. The employer is then mandated to the Workers Compensation Insurance Company for assistance.
- All these processes should however be completed as soon as possible to avoid delays,

#### **Statistical Distribution of Building Construction Site Accidents**

According to the National Safety Council (NSC), the statistical distribution of accidents experienced in building construction sites is as follows: Hand tools- 8%, transport-6%, machinery-8%, being struck by falling objects-11%, Personal falls 27%, handling of materials-26% and miscellaneous-6%. These statistics give a clue about the sources of accidents on building sites.

#### **Construction Site Accidents Age Trends**

Dawaki, (2017) revealed that studies have shown that younger less experienced workers experience more work injuries than older experienced workers. According to the Australian Bureau of Statistics, age group 0-14 and 15-24 experienced more injuries in 2001. They were of the opinion that the older the age group of workers, the less accidents cases experienced.

In the United States of America, Canada and Europe however, adolescents are frequently injured making it suitable to be considered a public health hazard (Dantata, 2018). The study showed that male adolescents experienced accidents 1.5 - 4 times more than those over 25 years old. Other research also showed that workers above 25 years are more likely to be injured than older workers, he further stated that young workers rarely know their rights and hence they were easily manipulated by employers to participate in unsafe tasks. The basic risks young workers take is trying to grow up too fast thus adequate training and supervision is essential when employing the services of young workers. Adeniyi (2020) also suggested that training and supervision were critical to young workers safety, recommending the implementation of induction processes on sites in order to address workplace hazards and training.

Rix (2001) in his research on work injuries 18 in America showed that workers within the age ranges of 16-19 years accounted for 3.5 % of injuries, 20-24 years accounted for 11.6%, 25-34 years had 28.2%, 35-44 years with 28.2%, 45-54 years with 18%, 55-64 years with 7.6 % and those Over 65 years accounting for about 1.2% of the injuries. The Bureau of Labour Statistics estimated that about 150,000 accidents occur on construction sites each year with workers between the age of 25 and 34 years being most likely to be injured.

However, Anthony (2010) in a study conducted in China from the construction site statistics concluded that there was no significant relationship between accidents and age group, i.e. the probability of accidents occurring across all age groups on site is the same. In Nigeria, there is little or no statistics about workers safety issues, this makes it look as if the problem is a Western one because most data available are obtained from these western countries whereas the reality on ground is that such problems are more rampant in developing Nations.

#### **Construction Accidents and Body Injuries**

Research has shown that contusions and cuts were the most common injury types accounting for about 29.4% and 22.4% respectively (Bruno and Tanko, 2019). A hospital showed that lacerations had 37%, sprain, strains and pain had 22.3% and contusions/abrasions accounted for 15.3%. Cases of injuries to the eye where about 10.8% while fractures had 8.7% (Hunting *et al.*, 2004). Non-fatal injuries like lacerations were common among construction workers in Egypt. These injuries usually occurred on the upper and lower limbs of the body, interestingly none of the injured workers reported receiving first-aid treatment (Afifi, 2015).

#### **CONCLUSION AND RECOMMENDATIONS**

##### **Conclusion**

The importance attached to the safety of workers on building construction sites can never be overemphasized. This is because of the mere reason that occurrence of accidents on sites result in far reaching consequences like delays in project completion time, alter overall cost of executing project, taint the reputation of the construction firm, de-motivate the co-workers and in some cases lead to death. Data about records of accidents in Nigeria and Abuja in particular were not readily available, this was basically because Company staffs in Nigeria do not report accident cases to the responsible government agencies for adequate documentation. The workers also act in the same manner as they rarely report cases of accidents too, they just notify the employers in some cases who in turn fail to notify the governmental agencies. Nigerian workers need to be sensitized on the importance and necessity of reporting accidents to the appropriate authorities, most of the available records cited in this work were mostly gotten from the accident cases that attracted media interest. These accidents recorded some casualties and the newspapers reported them on the pages of their dailies.

##### **Recommendations**

There is a lot to be explored as regards to workers safety. This work analyzed the issues experienced on typical building sites in Nigeria, there are however some more areas which need more research.

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