

EXAMINING HEALTH AND SAFETY REGULATIONS IN BUILDING CONSTRUCTION PROJECTS: ENSURING WORKER WELL-BEING AND RISK MITIGATION

James Janet Oluwayinka¹, Olowolayemo Oluwaseun Ebenezer², Williams Opeyemi Samuel³,
Awosusi Abiodun Racheal⁴, Kehinde Abiodun⁵

^{1,2,3,4}Department of Quantity Surveying, Rufus Giwa Polytechnic, Faculty of Environment Studies, Owo, Nigeria.

⁵Department of Architecture, Rufus Giwa Polytechnic, Faculty of Environment Studies, Owo, Nigeria.

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ABSTRACT

The impact of the construction industry can only be enhanced through health and safety building regulations to protect workers and the general community from the occurrence of accident. Therefore, this study identified the health and safety regulation in building construction. This study collected data through the use of structured questionnaire that were administered to registered professionals in Ondo State. The target population comprises of Quantity Surveyors, Architects, Builders, and Engineer. Sixty-one (61) questionnaires were administered, fifty (50) questionnaires were retrieved from professionals. In conclusion, the study highlighted the importance of three major health and safety regulations in the construction industry: first aid, personal protective equipment (PPE), and construction design and management. Implementing and adhering to these regulations is crucial to ensure the well-being and safety of workers on construction sites and to prevent accidents and injuries during building construction projects. Based on the study's conclusion, it is recommended to prioritize and enforce health and safety-first aid, promote the use of personal protective equipment, and emphasize effective construction design and management practices in the construction industry to prevent accidents and ensure worker safety.

Keyword: building construction, construction industry, health and safety-first aid, health and safety regulations, personal protective equipment (PPE)

1. INTRODUCTION

Every nation's economy relies heavily on the construction sector, which plays a crucial and dominant role. According to Ayangade, Wahab, and Alake (2009), all human endeavors are straddled by industry in all nations. They walk a number of physical infrastructures and decide to buy goods and services as part of their activities. It has added to net home item, the development of gross fixed capital arrangement and the coming of extreme levels of work for a wide scope of experts.

Ayodele and Alabi (2011), stated that a stable financial system typically results in increased construction activity, whereas a vulnerable financial system increases the likelihood of project abandonment.

In the development business, there are numerous issues brought about through unfortunate administration, and the circumstance appears to deteriorate as errands are frequently deferred, over planned, sloppy and substances are lacking (Dima, Vasilache, and Vasilescu, 2009). The number of disputes leading to litigation and arbitration is alarmingly high. The assembled climate tasteful has been broadly censured in the blueprints however is every now and again supported through additional serious distributions. The outdated role of experts in creating flexible, responsive, and dynamic development groups with protected teams and the absence of health and safety rules and/or enforcement in the construction industry exacerbate all of these issues. It appears to be the result of applying the way of thinking. A stable and risk-free setting for crew development (Ayininuola and Olalusi, 2004).

2. LITERATURE REVIEW

The health and safety regulation on building construction project

Chudly and Greeno (2006) frame development guideline as legal training setting out the base lawful necessity for development laborers and relate specifically the wellbeing, security and government assistance of the group of laborers which should be respected while arranging development activities and however long the credible improvement period would last. Okoye and Okolie (2014) encourage that the need to found development wellbeing and insurance rules used to be a result of the rate with which mishaps happen on advancement site without any potential repercussions with nobody being considered dependable and in light of work related death and wounds. In addition to enforcement, regulations cannot be beneficial on their own. In Nigeria, Wellbeing and Wellbeing

guidelines at work dates to 1958 when the Manufacturing Plants Act was connected to verify that the frameworks and structures for the assessment of safety strategies and detailing of mishaps are accurately placed in area (Dodo, 2014).

Health and safety first aid, personal protective equipment, construction design and management, control of substances hazardous to health, management of health and safety at work, ionizing radiation, control of vibration at work, control of noise at work, health and safety signs and signals, and confined spaces are the following health and safety regulations that apply to building projects, In line with Emma (2020), risk assessments are now required by law under control of substance hazardous to health regulation due to the management of health and safety at work regulation. The Nigerian Wellbeing and Security Commission is liable for the authorization of these guidelines. The commission includes representatives from the following ministries: The Ministry of Health, the Ministry of Internal Affairs, the Ministry of Works and Transport, the Federal Ministry of Labor and Productivity, and the Ministry of Health (Aniekwu, 2007).

Agwu and Olele (2014), discuss that the Employee's Compensation Act in Nigeria is in charge of enforcing welfare and safety regulations by appointing safety officers to inspect ongoing work. In spite of the Nigerian government's efforts and provisions, these laws have not been effectively enforced in identifying those who violate safety regulations. As a result, contractors are free to manage construction-related safety issues as they see fit; As a result, there will undoubtedly be more accidents and fatalities on the job if functional safety practices are not strictly implemented (Agwu et al., 2014).

3. RESEARCH METHODOLOGY

The result of data collection depends on many reasons, such as to pick out a correct and potential respondent, the enterprise and description of the right sampling frame, how the facts collected is received, encoded, processed and analyzed (Kumar 2011 and Creswell, 2009). This study collected data through the use of structured questionnaire that were administered to registered professionals in Ondo State. The target population comprises of Quantity Surveyors, Architects, Builders, and Engineer. Sixty-one (61) questionnaires were administered, fifty (50) questionnaires were retrieved from professionals. The data retrieved were analyzed using descriptive statistics. Mean score response analysis, percentages and frequency.

Results and presentation

Total number of sixty-one (61) copies of questionnaire were administered to Quantity surveyor, Architect, Engineers and Builder in the study area. Fifty (50) copies were retrieved and used for analysis. This represents a response rate 76.92 %.

Table 1: Distribution of questionnaires

Type of response	Frequency	Percentage
Number distributed	61	100
completed and returned	50	76.92
Number not returned	11	23.08

Source: Author (2023)

In respect to years of experience in the construction industry of the respondents has 1-5 years of experience in the construction industry establishment, 14% has a range of 6-10 years were 22% 11-15 years were 22% and 20 years above have 40% while above 25 years of experience in the construction industry of the respondents are 2% respectively as shown in table 2 below.

Table 2: Years of experience in the construction industry

Classification	Frequency	Percentage
1 – 5	8	16
6 – 10	11	22
11 – 15	11	22
20 years	20	40
Total	50	100

Source: Author (2023)

The academic qualification of the respondents is summarized in table 3 of which 22% are HND holders. The other categories of highest academic qualification are given as follows; BSc. 20%, PGD 30%, MSc. 16% and PhD 12%.

The academic qualification of the respondents is important and supports the fact that they are knowledgeable and capable of providing the much-needed professional judgment required for the credibility of the data collected for the research.

Table 3: Academic qualification of respondents

Education background	Frequency	Percentage (%)
ND	0	0
HND	11	22
BSC	10	20
PGD	15	30
MSc.	8	16
PhD	6	12
Total	50	100

Source: Author (2023)

It is shown in table 4 that the categories of construction project stakeholders, 20% were Quantity surveyor, 52% were Engineer, 18% were Architect, 10% were builder 10%.

Table 4: Categories of construction project stakeholders

Options	Frequency	Percentage
Quantity surveyor	10	20
Engineer	26	52
Architect	9	18
Builder	5	10
Total	50	100

Source: Author (2023)

Table 5 that building project were largest chunk of project type involved for this research of the total respondents. Residential building 62%, followed by others commercial building 32 %, followed by educational building 4%, followed by institutional building 2%. It can be deduced from the result that most of the project type in the study area were highly recognized.

Table 5: Type of project involved

Options	Frequency	Percentage
Residential building	31	62
Commercial building	16	32
Educational building	2	4
Institutional building	1	2
Total	50	100

Source: Author (2023)

Health and safety regulation on building construction project

The objective of the study on the health and safety regulation on building construction project was placed on a Likert scale 1-5 to test respondents' opinion on the listed variables (5-most prevalence, 4-more prevalence, 3-somewhat prevalence, 2-prevalence, 1-not prevalence. Table 6 shows the mean score on the response of the respondents' opinion on the health and safety regulations on building construction project which include safety- first aid, personal protective equipment, construction design and management, control of substance hazardous to healthy, management of health and safety at work, ionizing radiation, lifting operations and lifting equipment, control of vibration at work, working at

height, the electricity at work, health and safety signs and signal, health and safety signs and signal, dangerous substance and explosive atmospheres, control of asbestos, confined spaces, the manual handling operation, the hazardous waste, control of lead at work, supply of machinery safety, regulatory reform (fire safety), control of noise at work.

Table 6: Health and safety regulation on building construction project

Subject	Mean	Rank
The health and safety- first aid	4.82	1 st
The personal protective equipment	4.46	2 nd
The construction design and management	4.36	3 rd
Control of substance hazardous to healthy	4.28	4 th
Management of health and safety at work	4.26	5 th
Ionizing radiation	4.18	6 th
Lifting operations and lifting equipment	4.16	7 th
Control of vibration at work	4.14	8 th
Working at height	4.12	9 th
The electricity at work	4.12	9 th
Health and safety signs and signal	4.08	11 th
Provision and uses of work equipment	4.08	11 th
Dangerous substance and explosive atmospheres	4.04	13 th
Control of asbestos	3.96	14 th
Confined spaces	3.94	15 th
The manual handling operation	3.92	16 th
The hazardous waste	3.88	17 th
Control of lead at work	3.86	18 th
Supply of machinery safety	3.82	19 th
Regulatory reform fire safety	3.82	19 th
Control of noise at work	3.72	21 th

Source: Author (2023)

4. CONCLUSION

In conclusion, the study highlighted the importance of three major health and safety regulations in the construction industry: first aid, personal protective equipment (PPE), and construction design and management. Implementing and adhering to these regulations is crucial to ensure the well-being and safety of workers on construction sites and to prevent accidents and injuries during building construction projects.

5. RECOMMENDATION

Based on the study's conclusion, it is recommended to prioritize and enforce health and safety-first aid, promote the use of personal protective equipment, and emphasize effective construction design and management practices in the construction industry to prevent accidents and ensure worker safety.

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