

Factors Militating Against Implementation of Health and Safety Precautions Among Construction Site Stakeholders: A Case Study of Ondo State, Nigeria

Olowolayemo Oluwaseun Ebenezer^{1*}, Kehinde Abiodun², Ogunbode Akintoye Benson³, Olowoyo Austin Sanya⁴, Awosusi Abiodun Racheal⁵

1,3, 5 Department of Quantity Surveying, Rufus Giwa Polytechnic,
Faculty of Environmental Studies, Owo. NIGERIA.

2,4 Department of Architectural Technology, Rufus Giwa Polytechnic,
Faculty of Environmental Studies, Owo. NIGERIA.

ABSTRACT

Accident has been identified as one of the major factors militating against the achievement of construction project goal in the construction industry, and if not well prevented, it can cause delay of the project or lead to total abandonment of such project. Therefore, this study assessed the factors militating against implementation of health and safety precaution among construction site stakeholders in Ondo state, south-western, Nigeria.

This was with a view to reduce the occurrence of accidents on construction sites in the study area. The study is important to the construction stakeholders, policy makers, and future studies. One hundred and five (105) valid questionnaires were administered among the construction stakeholders working in selected construction sites in the study area, these include Architect, Quantity Surveyor, Engineer, Builder, Contractor, Craft man, Safety officers and Client with a retrieval of Seventy-five (75). Frequency and percentage were used to analyze the demographic information of the respondent while data on the factors militating against implementation of health and safety precautions among construction site stakeholders was analyzed using relative important index (RII).

The study concluded that lack of effective supervision on sites, carelessness and over-confidence of stakeholders and inadequate engagement of safety officers were the major factors militating against implementation of health and safety precautions among construction sites' stakeholders in the study area.

The study recommend that there should be effective supervision on site, stakeholders should be orientated against carelessness and over-confidence and also there should be adequate engagement of safety officers on every construction site

Keywords: Health and Safety precautions, implementation, construction, construction sites, construction site stakeholders

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I. INTRODUCTION

Construction industry stands out from all others because it provides essential infrastructures that encourage national development (Olaresaju and Abdul-Rashid, 2015)

Ayangade (2000), concluded that the industry is a project-based organization in which various parties collaborate to achieve a common objective. whereas, Smallwood and Haupt (2002), opined that construction industry is the most dangerous or highly hazardous sector of the economy compared to other economic sectors due to the high number of casualties sustained during construction projects all over the world.

However, Awwad, Souki, and Jabbour (2016) identified workers' willingness to accept risky jobs as a means of survival and low wages remained the primary causes of accidents. Muhammad, Abdulateef, and Ladi (2015) believed that any effort to implement health and safety programs on construction sites would raise project costs overall. In order to reduce the level of occurrence of accident and its impact in the construction sites. This paper therefore, examines factors militating against implementation of health and safety precautions among construction sites' stakeholders.

The study Area

The study area for this study was Ondo state, south-western, Nigeria. Ondo state is one of the thirty-six states of Nigeria. The state which is also called the sunshine state. According to last general election in October, 2020 (INEC), the state consists of three (3) senatorial districts: Ondo central, Ondo south and Ondo north. In

view of this, the study was carried out in selected construction sites across the three (3) senatorial districts in the state.

II. LITERATURE REVIEW

Factors militating against implementation of health and safety precautions among construction site stakeholders

Dessler (2008) suggested that employees have a responsibility to follow occupational safety and health act (OSHA) standards, but they often don't, and the employer usually has to pay any fines. Several authors have worked on health and safety management on construction sites, but they haven't given enough thought to the factors that prevent construction site stakeholders from using health and safety precautions. Mat Zin and Ismail (2011), concluded that it is because of its active role in altering employee behavior, which will reluctantly result in a greater influence toward enhancing safety behavior.

Unemployment has caused workers to disregard safety procedures and accept risky jobs(Umeokafor, Isaac, Jones, and Umeadi, 2014)

Inadequate facilities and recruitment of training officers who enforce the laws, financial constraints, Workers inadequate or lack of understanding about the workplace safety rules, Willingness of the workers to meet their daily output, Ineffective communication between health and safety managers and workers, Inadequate engagement of safety officers, Safety wears are not comfortable to work with and lack of proper knowledge on the hazards management are some of the factors hindering the implementation of health and safety precautions in the construction sites.

Bust, Finneran, Hartley, and Gibb (2014), opined the needs to improve construction project safety and to increase professionals' interest in safety practices and use of awareness measures, which must be implemented and demonstrated by workers.

III. RESEARCH DESIGN AND METHODOLOGY

Introduction

The research methodology used was discussed in this chapter. The target population, sample size, data collection instruments and procedures and also, summary of methods used in data analysis and presentation for this study was discussed.

Research Design

The study's research design was descriptive because it used both qualitative and quantitative methods to describe the factors that prevent construction site stakeholders in Ondo state, Nigeria, from putting health and safety measures into place. In descriptive study designs, Gathuthi, Kosgei, and Nganga (2009) state that the researcher presents or describes a picture of the phenomenon or phenomena under investigation. Participants' observation is one option, in which the researcher observes and records the respondents' natural interactions with them in a natural setting without having any influence over them. Using a descriptive research design, a variable or set of variables are measured in their natural state.

Target Population

The target population were the stakeholders in charge of selected construction sites in Ondo state, Nigeria. The construction sites were of interest because they constituted a big percentage as stakeholders making them suitable for the study. The target population spans across the stakeholders working on selected construction sites in the three (3) senatorial districts in the state: Ondo central, Ondo south and Ondo north.

Sample Size and Sampling Technique

Panneerselvan (2004) defines "census" as the process of collecting responses from or information about every member of the population. Under the census method, data must be gathered from every person in the population. The census method can be used if the population is manageable. The entire population of selected construction sites in the three senatorial districts of Ondo state, Nigeria, was surveyed using a census method.

Census inquiry is an exhaustive count of everything included in the "population." When all of the options are considered, it is reasonable to assume that the highest level of accuracy is achieved and that there is no room for error. However, this may not be the case in practice. As the number of observations rises, even the tiniest amount of bias in such an investigation will grow in size (Kumar, 2008). Respondents were drawn from the stakeholders in charge of selected construction sites in Ondo state. The sample size was equal to the target population.

Data Collection Instruments.

The self-administered questionnaires were used to collect the primary data for the study. A questionnaire, as defined by Kothari (2004), is a collection of questions printed or typed in a predetermined order on a form or set of forms. A questionnaire is frequently regarded as the center of a survey. The likert question scale was used for the open-ended and closed-ended questions in the questionnaires used in this study. Because it involves observation and evaluation, this method necessitates a higher level of inference on the part of the observer.

Data Analysis and Presentation

Mugenda&Mugenda (2003) state that data analysis is the process of organizing and giving meaning to a lot of information. Frequency and percentage were used to analyze the demographic information of the respondent while data on the factors militating against implementation of health and safety precaution among construction site stakeholders was analyzed using relative important index (RII). The most widely used and comprehended standard for proportions is the percentage. (Kangu, Mamati, Onwonga, and Osongo, 2010).

IV. FINDINGS AND DISCUSSION

A total number of one hundred and five (105) copies of questionnaire were administered to Architect, Quantity surveyors, Engineer, Builder, Contractor, Craftsman, Safety officer, Client/representative in the study area. Seventy-five (75) copies were retrieved and used for the analysis. This represents a response rate 71%.

Table 1: Questionnaire distributed and retrieved.

Number distributed	Number retrieved	Rate of return (%)
105	75	71%

Table 1 showed the number of questionnaire received from different organizations that made up the population.

Demographic characteristics

Table 2: Years of experience in the construction industry

Category	Frequency	Percent
1-10	53	70.7
11-20	21	28.0
21-30	1	1.3
Total	75	100.0

Table 2: showing the demographic characteristics of the respondent.

The year of experience of the respondent varies from 1-30 years' respondents within 1 and 10 years of experience were 70.7%, while respondents between 11 and 20 years of experience had 28.0% of the respondent and lastly respondent between 21 and 30 years of experience were 1.3%.

Table 3 Highest academic qualification

Category	Frequency	Percent
ND	10	13.3
HND	20	26.7
BSc.	23	30.7
PGD	6	8.0
MSc.	16	21.3
Total	75	100.0

Also, the respondent varies in their educational qualification, 13.3% has ND holders, 26.7% were HND holders, also 30.7% has BSc. level of education and 8.0% has PGD, followed by 16% who has MSc.

Table 4: Area of specialization in construction works

Category	Frequency	Percent
Architecture	9	12.0
Quantity surveying	17	22.7
Engineering	13	17.3
Building	20	26.7
Contracting	3	4.0
Crafting	6	8.0
Safety	4	5.3
Client	3	4.0
Total	75	100.0

Furthermore, on the area of specialization in construction works, 12.0% were Architecture, 22.7% were Quantity surveying, 17.3% were Engineering, 26.7% were Building, 4.0% were Contracting, 8.0% were Crafting, 5.3% were Safety also 4.0% made Client the respondent.

Table 5: Type of project involve

Category	Frequency	Percent
Building project	67	89.3
Civil engineering project	7	9.3
Heavy engineering project	1	1.3
Total	75	100.0

Also, on the type project they involve in, 89.3% of the respondents were engaged in building project, and 9.3% were into civil engineering project and lastly 1.3% were involve in heavy engineering project

Table 6: Factors militating against implementation of health and safety precaution among construction site stakeholders

Options	RII	Rank
Lack of effective supervision on sites	0.86	1 st
Carelessness and over-confidence of Stakeholders	0.83	2 nd
Lack of bargaining power	0.78	5 th
Long training and education time	0.74	14 th
Tight project deadline	0.74	14 th
Wrong perception or under estimation risk	0.75	10 th
Onerousness and variability of legislation	0.74	14 th
Corruption	0.75	10 th
Fragmented nature of construction industry	0.71	18 th
Ineffectiveness of safety training	0.74	14 th
High risk of nature of construction industry	0.76	7 th
Lack of skilled personnel	0.76	7 th
Inadequate facilities and recruitment of training officers who enforce the laws	0.75	10 th
Financial constraint	0.75	10 th

Workers inadequate or lack of understanding about the workplace safety rules	0.78	5 th
Willingness of the workers to meet their daily output.	0.75	7 th
Ineffective communication between health and safety managers and workers	0.79	4 th
Inadequate engagement of safety officers	0.81	3 rd
Safety wears is not comfortable to work with	0.71	18 th
Lack of proper knowledge on the hazards management	0.76	7 th
Total	15.26	

The objective of the study on factors militating against implementation of health and safety precaution among construction site stakeholders was placed on a Likert scale 1 – 5 to test respondents’ opinion on the listed variables (5-strongly agree,4-agree,3-neutral,2-disagree,1-strongly disagree).

Table 6 presents Relative Important Index rankings of the responses on the factors militating against implementation of health and safety precaution among construction site stakeholders. Five top ranked from the overall (**RII**) among the factors were: lack of effective supervision on sites(**RII=0.86**), closely followed by lack carelessness and over-confidence of Workers(**RII=0.83**), inadequate engagement of safety officers (**RII=0.81**), Ineffective communication between health and safety managers and workers(**RII=0.79**), lack of bargaining power and workers inadequate or lack of understanding about the workplace safety rules (**RII=0.78**).

V. CONCLUSION

The study concluded that lack of effective supervision on sites, carelessness and over-confidence of Workers and inadequate engagement of safety officers were the major factors militating against implementation of health and safety precautions among construction sites’ stakeholders in the study area.

VI. RECOMMENDATION

The study recommend that there should be effective supervision on site, stakeholders should be orientated against carelessness and over-confidence and also there should be adequate engagement of safety officers on every construction site

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