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Factors Contributing To Health and Safety Non-Compliance in Nigerian Construction Industry

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ASTRACT

Occupational Health and Safety non-compliance is a global issue of great concern leading to injuries and fatalities in the construction industry of almost all the countries. In Nigeria Occupational Health and Safety regulations and provisions are non-functional and have not been given much attention. Hence resulted to non-compliance of regulation in the construction industry. This study therefore is aimed at investigating the significant factors contributing to non-compliance of health and safety regulation in Nigerian construction industry. The data was obtained through a survey participated by architects, quantity surveyors, builders and civil engineers. A total of 88 completed questionnaires retrieved from the respondents were analysed using Average Index (AI) calculation. The survey findings revealed; lack of adequate regulations, lack of proper of OSH regulations enforcement, inadequate funding, lack of management commitment and more concerned on higher profit margin as the most significant factors contributing to non-compliance of health and safety regulation in Nigerian construction industry. However, this study identified nineteen (15) factors contributing to non-compliance of health and safety. The findings in this study will help Nigeria'sFederal Ministry of Labour and Productivity and stakeholders in construction industry to be conversant with factors contributing to non-compliance of health and safety regulation.

Keywords: Health and safety; regulation, non-compliance, construction industry

I. INTRODUCTION

The Nigerian construction industry play a prominent role in contributing to Gross National Product with estimated figure of 3.82%. Hence, the reason for occupying the locus in the nation's economy (Okoyeet al., 2016). Occupational Health and Safety non-compliance is a global issue of great concern leading to injuries and fatalities in the construction industry of almost all the countries (Kheni&Braimah, 2014). The rate of occurrence of site accident is grossly affecting the health and safety of construction industry in most of the countries including United State and United Kingdom (Adeyemo& Smallwood, 2017). Health and Safety Executive's (HSE) statistics shows that construction employees in United Kingdom are more prone to fatalities five times and two times likely to be injured than any other industries (Mba and Hilda 2014). This is because in each and every year, one among six workers on site is likely to be injured at the time of project execution (Adeyemo& Smallwood, 2017). Research studies affirmed that the rate of accidents and injuries in most of the developing countries such as Nigeria is substantially higher than in some of the countries like Europe, United State and Australia (Agbedeet al., 2016).

In Nigeria Occupational Health and Safety regulations and provisions are non-functional and have not been given much attention. Hence resulted to non-compliance of regulation in the construction industry (Okolie&Okoye, 2012). However, lack of effective service from Federal Ministry of Labour and Productivity Inspectorate Division to superintend the affairs of Occupational Safety and

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Health in Nigeria as authorized by the Factories Act and continued eviction of Nigerian construction industry had contributed significantly toward the present state of non-compliance (Umeokaforet al., 2014). Accident in the site of construction can cause bottleneck, blemish to plant and tools, increase in labour cost, restitution to victims, medical fee, payment of indemnity claim of injury or fatality and payment of legal fees for litigation defence (Heerdenet al. 2018).

Compliance is to bring the designed measures in to action thereby complying with legal requirements with the regulator being supremely interested on improved outcome than the prosecution aftermath. However, lack of compliance is the heftiest issue contributed toward present statehealth and safetyin Nigeria. This came forth as a result of non-strict enforcement of Occupational Safety and Health regulations (Adebiyiet al 2020). Therefore, strict compliance of Occupational Health and Safety regulation can significantly enhance the productivity thereby reducing the rate of accidents. Since accidents diminish the rate of productivity and consequently blemish the equipment and property (Adebiyiet al., 2019). The incessant of health and safety non-compliance among the stakeholders in the construction industry yell for the need to examine the level of health and safety knowledge as well as compliance of construction workers (Okoyeet al., 2016). This came in to fore after realising organizational safety culture is the first and foremost factor contributing to Occupational Health and Safety non-compliance followed by lack of enforcement and compliance (Idubor&Oisamoje, 2013).The issue of health and safety non-compliance is omnipresent in which Nigeria would not be left out. Since non-compliance resulted to accidents, damage of equipment and consequently affect the productivity in Nigerian construction industry (Adebiyiet al., 2019). Thus, there is need to identify factors contributing to health and safety non-compliance. Hence, this study ought to investigate contributing factors of health and safety non-compliance. In identifying the variables of non-compliance, a total of fifteen (15) factors picked from previous reviewed literature were considered for further investigation to obtain the most significant factors contributing to non-compliance of health and safety in Nigerian construction industry. The identified factors of non-compliance presented in Table 1.

Table 1:Factors Contributing to Non-compliance of Health and Safety Regulation

S/No.	Contributing Factors Health and safety Non-Compliance	Reference
1.	Lack of considering previous record during tendering process	Windapo (2013); Nzuve& Lawrence (2012)
2.	Lack of proper of OSH regulations enforcement	Idubor&Oisamoje, (2013)
3.	Reputation of firms	Nzuve and Lawrence (2012); Jacobi (2012)
4.	Lack of awareness	Adebiyiet al., (2020);
5.	More concerned on higher profit margin	Nzuve and Lawrence (2012); Windapo&Oladapo, (2012).
6.	Inadequate funding	Nzuve& Lawrence (2012); Idubor and Oisamoje (2013); Diugwuet al. (2012)
7.	Absence of a trained safety officer in construction organisation	Adeniyiet al., (2020); Okoyeet al., (2016)
8.	Wrong perception of stakeholders in the construction industry	Windapo (2013); Diugwuet al.,(2012);Usman (2012)
9.	Lack of management commitment	Windapo and Oladipo (2012); Tanko&Anigbogu, (2012); Idubor and Osiamoje (2013)
10.	Neglect of human rights	Idubor&Osiamoje (2013); Puplampu&Qartey (2012); Windapo and Oladapo (2012)
11.	Lack of adequate regulations	Diugwuet al., 2012; Idubor and Osiamoje (2013)
12.	lack of safety culture in construction organisation	Kalejaiye (2013); Okolie&Okoye (2012)

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13.	Influence of client	Adebiyiet al., (2020); Okeyeet al., (2016)
14.	Non-functional legal structure	Adebiyiet al., (2020); Windapo&Oladipo (2012)
15.	Fear of legal sanction	Adebiyiet al., (2020); Diugwu et al., (2012)

II. METHODOLOGY

The main objective of this study is to identify the factors contributing to non-compliance of health and safety regulation. To achieve this objective, a comprehensive literature was reviewed to identify factors contributing to non-compliance of health and safety regulation. Quantitative approach was employed to understand the perceptions of architects, quantity surveyors, civil engineers and builders toward the factors contributing to non-compliance of health and safety regulation in Nigeria construction industry. In this study, key stakeholders in Adamawa state who have experience relevant in the construction industry were considered as target population. The list of both consulting and contracting firms were obtained from Corporate Affairs Commission (CAC) in order to achieve considerable population sampling. A However, fifteen (15) factors responsible for non-compliance of health and safety regulation identified from previous literature were adopted as basis for designing questionnaire. A total of 100 questionnaires were administered, in which 88 were retrieved. Measurement of factors contributing to non-compliance of health and safety regulation was carried out using a likert scale of 1-5 representing strongly disagree, disagree, somewhat agree, agree and strongly agree respectively. All the responses derived from the retrieved questionnaires were analyzed using Statistical Package for Social Sciences (SPSS, version 23.0) and Average Index (AI) formula as adopted by (Memon 2014).

$$AI = \frac{\sum (1X1+2X2+3X3+4X4+5X5)}{\sum (X1+X2+X3+X4+X5)}$$

Where;
X1 = Number of respondents ticked strongly disagree
X2 = Number of respondents ticked disagree
X3 = Number of respondents ticked somewhat agree
X4 = Number of respondents ticked agree
X5 = Number of respondents ticked strongly agree

III. RESULT AND DISCUSSION

Table 2: Respondents Demography

1. Respondents Profession	Frequency	Percentage
Architects	31	35
Quantity Surveyors	26	30
Builders	18	20
Civil Engineers	13	15
	88	100
2. Respondent Qualification		
PhD	7	8
Master's Degree	51	58
Degree	28	32
Diploma	2	2
	88	100
3. Respondents Years of Working Experience		
1-5	8	9
6-10	12	14
11-15	18	20
16-20	26	30
Above 20	24	27
	88	100

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Table 2 above illustrates respondent's demography in respect of profession, qualification and years of working experience. Among 88 respondents, 31 representing 35% are architects while 26, 18 and 13 respondents equivalent to 30%, 20%, and 15% of total respondent participated in the survey are quantity surveyors, builders and civil engineers respectively. Moreover, 7 respondents (8%) have PhD as highest qualification, whereas 51 of the respondents (58%) ticked Master's degree as their qualification as shown on the table. The remaining 28 and 2 of the respondents equal to 32% and 2% of whole respondents have degree and diploma as highest qualification respectively. On the other hand, 8 respondents (9%) have 1-5 as year of working experience while 12 (14%), 18 (20%), 26 (30%) and 24 (27%) of the respondents ticked 6-10, 11-15, 16-20 and above 20 respectively.

Table 3: Ranking of Factors Contributing to Non-compliance of Health and Safety Regulation

S/No.	Variables	Average Index	Rank
1	Lack of adequate regulations	3.55	1
2	Lack of proper of OSH regulations enforcement	3.51	2
3	Inadequate funding	3.42	3
4	Lack of management commitment	3.30	4
5	More concerned on higher profit margin	3.15	5
6	Absence of trained safety officer	3.11	6
7	Wrong perception of stakeholders in the construction industry	3.05	7
8	lack of safety culture in construction organisation	3.00	8
9	Neglect of human rights	2.85	9
10	Lack of considering previous record during tendering process	2.79	10
11	Reputation of firms	2.72	11
12	Non-functional legal structure	2.71	12
13	Lack of awareness	2.69	13
14	Fear of legal sanction	2.52	14
15	Influence of client	2.45	15

Table 3 above illustrated the results of the analysis in which average index were arranged from highest to the lowest value. The top five (5) most significant factors contributing to non-compliance of health and safety regulation were obtained from fifteen (15) non-compliance variables. These includes; Lack of adequate regulations with a highest AI value of 3.55 was ranked 1st among the factors contributing to non-compliance of health and safety regulation in Nigerian construction industry. Lack of proper of OSH regulations enforcement was ranked 2nd with AI value of 3.51 while inadequate funding with AI value of 3.42 was ranked 3rd. On the other hand, Lack of management commitment and higher profit margin inclined at AI values of 3.30 and 3.15 were ranked 4th and 5th respectively among the significant factors contributing to noncompliance of health and safety regulation in Nigerian construction industry.

IV. CONCLUSION

This study investigated factors contributing to non-compliance of health and safety regulation in Nigerian construction industry. The survey was conducted using questionnaire form comprising of 15 common factors of health and safety non-compliance. A total of 88 completed questionnaire were retrieved from architects, quantity surveyors, project managers and civil engineers and analyzed with average index formula. From the analysis, it was revealed that the most significant factors contributing health and safety non-compliance are lack of adequate regulations, lack of proper of OSH regulations enforcement, inadequate funding, lack of management commitment and higher profit margin. Conclusively the study further re-affirms the significance of compliance of health and safety regulation in Nigerian construction industry.

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