

Factors Responsible for Deficient Supervision of Construction Project in the Nigerian Building Construction Industry

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ABSTRACT

The construction industry is faced with obvious challenges all through its wide range which has consistently led to several deficiencies. Since these challenges are constantly reoccurring, this study sets to identify the factors responsible for deficient supervision of construction project work in the Nigerian building industry. To achieve the set objectives, various authors' works were reviewed and data were collected from primary sources with the aid of a well-structured questionnaire. One hundred and twenty-three questionnaires were administered to construction professional in the building industry out of which one hundred and fifteen were retrieved, coded, and analyzed using descriptive statistics; percentile and mean item score. The study concluded that the three major factors responsible for deficient supervision on construction works are; the presence of inexperienced supervisors, a lack of effective planning, and poor communication. Based on the conclusion, the study recommended offering thorough training for supervisors, placing emphasis on both practical skills and theoretical understanding. The crucial elements for the success of the project include the adoption of thorough planning procedures, which involve detailed scheduling and resource allocation. Additionally, creating transparent and open communication pathways among project stakeholders is imperative

Keywords: Construction project management, construction project supervision, contributing factors, deficient supervision, Nigerian building construction industry

I. INTRODUCTION

The construction industry is an important component of every economy as it plays a significant role in the economy of developing countries (Kheni, 2008). Oyewobi (2011) believes that the construction industry occupies a dynamic position in every country's economy due to its significant impact on development progress. According to Ayangade (2009), construction industries around the world are often perceived as a lifeline of their respective economies because they pervade all aspects of human activity. The construction industry is therefore an important sector of the economy, providing infrastructure facilities to support all other sectors of

the economy. In addition, Construction industry in developing countries like Nigeria either small scale or large scale are labor intensive. This construction industry has indirectly or directly lead to the employment of millions of labours. However, a higher percentage of these labours work as unqualified and unskilled labourers which in turn, brings about the need for effective supervision on achievement of construction project goals in the Nigerian building construction industry.

Basically, the efficiency of supervision is dependent or rely solemnly on the supervisor's skills and ability. Thompson and Gilbert (2011) define supervision as a process of monitoring. To ensure effective supervision, supervisors must be aware of his span of control, has the ability to direct, coordinate human resource, manage organization capital and should be a competent and experienced practitioner. Furthermore, Heravitorbati, Coffey, Trigunarysyah, and Sagharforoush (2011) define high quality and performance in manufacturing initiatives as meeting construction project expectations. Hence, for a construction project goal to be considered to be effectively achieved, the expectancy of assignment participant as regard to cost, time, quality, safety, and client satisfaction have to had been fulfilled as Oyegoke (2008) affirmed that construction projects are successful when completed within predetermined contract sum, project duration and quality.

Nadeem, (2010) affirmed that if the risk associated with the construction industry is not dealt with satisfactorily there is likelihood of cost overrun, time delay and low quality resulting to client dissatisfaction and the public at large. The issue surrounding poor supervision remained a problem that must be overcome. Thus, this study aimed at identifying factor that are responsible for deficient supervision of project works on construction sites in the Nigeria building construction industry.

In achieving construction project goals, focus has only been set on the problem faced in supervision which Windapo (2012) identified as critical working condition, inadequate commitment of all project contributors, poor arrangement of site layout, inadequate top management support and indeterminacy of project team. In addition, Ogunde, Eseohe, Joshua, Bamidele, Amusa, and Ogunde (2017) stated that the most important factors affecting project implementation were inadequate management skills, poor project planning, and unavailability of funding. Hence, it is against this foregoing that this research attempt to develop strategies for the implementation of effective supervision in achieving construction project goals in the Nigeria building construction industry.

II. LITERATURE REVIEW

Factors Responsible for Deficient Supervision of Construction Projects

The site supervisor is a major contributor to achieving project goals, as the responsibility of overseeing the work operations in a construction site relies on him. Hence, the need for an experienced supervisor. Jakars and Radosavijevic (2013) attest that inexperienced supervisor is a factor responsible for deficient supervision. Many site supervisors on construction are young and with little experience could not manage their duties as it revolves around conducting inspection, assessing risk, managing and evaluating workers and coordinating with site foreman and suppliers thereby resulting to deficient supervision. Ogundipe, Ogunbayo, Ajao, Ogundipe and Tunji-Olayeni. (2018) reported that supervisor and workmen ratio on sites remained one of the

ignored factor responsible for low supervision. Construction industry is labour intensive which encompasses different levels of workforce, such as the supervisor and workmen. For an effective supervision, supervisor must be aware of his span of control and strength so as to determine the number of workmen to supervise per time. In the Nigerian building construction industry, contractor tries to cut cost by hiring and allocating few supervisors to a larger number of workmen not considering the strength and ability of the supervisor. Hence, an outrageous number of workmen to a supervisor result to deficient supervision

Poor communication is a very common problem in construction projects (Peter, 2013), and a factor militating effective supervision as its impact can't be understated as it affects the project success. It was revealed by Silva, Rajakaruna and Bandara (2008) that unstable and unfavorable government policy can result to delay in building construction and has a negative significant influence on building construction since incoming government policies typically make rapid changes to previous governments' public policies. In other words, unstable government policy is a significant factor of deficient supervision.

Jarkas et al. (2013) in further review affirmed that change in design at construction stage, overcrowding, setting wrong target and material shortage on site are few of the challenges encounter. Other study by Emmanuel, Emenike, Okechukwu and Ifeanyi (2020) reveals constant variation, high ratio of unskilled labour to skilled labour, lack of planning, inadequate 12 documentation of day to day activities, safety practice and government policy (Ogundipe et al., 2018c). Additionally, are budget constraint, material fabrication delay, labour disloyalty and suspension of work.

III. RESEARCH DESIGN AND METHODOLOGY

Research design

According to Williams (2019), research design encompasses the overall plan required to carry out a research relating to the investigation to be made, location as well as implication to the ultimate analysis of the collected data. Yin (2003) further states that research design is a process by which answers are generated for research questions in a more coherent and logical way which helps ease of data collection, measurement and analysis.

Research population

Sekeran and Bougie (2009) define research population as the general population from whom the expected data to discover answers to your exploration question is acquired. For the purpose of this study this researcher made use of contractors, quantity surveyors, architects, builder and structural engineer in Ondo State.

Sample frame and sample size

Sample frame is a raw figure of the research population. It is the original source from which samples are drawn which is sufficient and accurately represent the population from which it sourced from (Aje, 2008). Meanwhile, sample size is known as the subset of population. Sample size is otherwise described as the proportion from which the general inference about the chosen population. For objectivity of this research work the question devised by Slovin and Yamane (1967) was adopted.

Data collection tool and analysis

For the purpose of this study primary data collection method was adopted to seek data. Kothari (2004) affirmed that primary data collection method is one of the efficient method by which reliable conclusion can be derived. This research made use of well-structured questionnaires which was administered by hand to the respondent by the researcher with the help of the supervisor directives. The questionnaire having being administered and responded to was retrieved from the respondents by hand while some was waybill down to the researcher location.

According to Morenikeji (2007), data analysis involves making sense out of the numerical values obtained through data collection process. For the purpose of this study Percentile, Pie Chart and Mean Item Score (MIS) was adopted to analyze the identified factors responsible for deficient supervision of project works on construction sites in achieving construction project goals in the Nigerian building construction industry.

IV. FINDINGS AND DISCUSSION

One hundred and twenty-three (123) book format four-page well-structured questionnaire was designed and administered, of which one hundred and fifteen (115) was retrieved and deemed appropriate for analysis. The response rate represents 93.5% as showed in the table below.

Table 1: Questionnaire administered and retrieved

No of administered Questionnaire	No retrieved	% of retrieval
123	115	93.5%

Table 2 and Figure 1 below shows the year of working experience of respondents. The result indicated that 20% of the respondents with 1 to 5 years of experience were 23 in number, 26.1% of the respondents with 6 to 10 years of experience were 30 in number while 20% of the respondents with 11 to 15 years of experience were 23 in number. The table also reveal 15.7% of the respondents with 16 to 20 years of experience to be 18 in number while 18.3% of the respondents with above 20 years of experience were 21 in number.

Table 2: Years of experience in the construction industry

Classification	Frequency	Percentage (%)
1-5yrs	23	20.0
6-10yrs	30	26.1
11-15yrs	23	20.0
16- 20yrs	18	15.7
Above 20yrs	21	18.3
Total	115	100

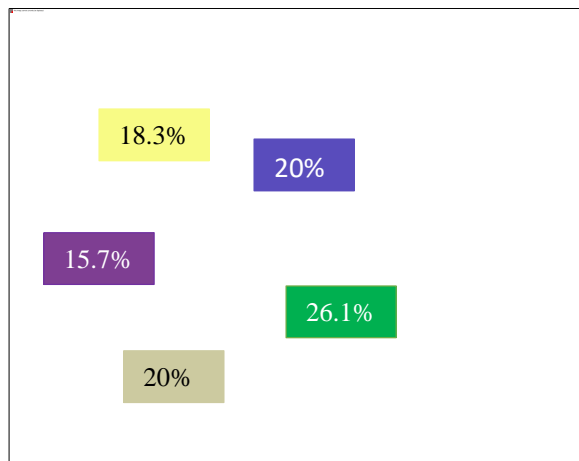


Figure 1: Years of experience of respondents

Table 3 and Figure 2 presented the highest academic qualification of respondents. The results indicated that 37.4% of the respondents are M.Sc. graduate, while 20.9%, 13.9% and 13.9% of the respondents are HND, B.Sc. and PGD respectively. Others academic qualification of the respondents are PhD, ND and Others with 9.4%, 2.6% and 1.7% respectively. As deduced from the table below all respondents are educated and this has provided a solid base for providing appropriate response to the research questions.

Table 3: Highest academic qualification

Classification	Frequency	Percentage (%)
ND	3	2.6
HND	24	20.9
B.Sc.	18	13.9
PGD	18	13.9
M.Sc.	43	37.4
PhD	11	9.4
Others	2	1.7
Total	115	100

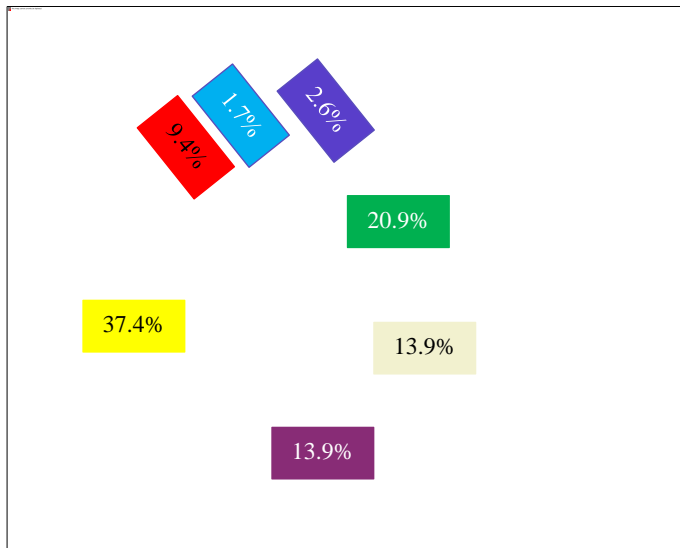


Figure 2: Highest academic qualification

Table 4 and Figure 3 revealed the category of construction stakeholder of the respondents. It is shown that quantity surveyors had the highest response rate at 34.8%, contractor at a valid percentage of 20.9% followed by engineers, architect, builder with 13%, 15.7% and 14.8% respectively. The table also reveal others with no designation to be 0.9%. This shows that the major category of respondent involved in this study is the quantity surveyors.

Table 4: Category of construction stakeholder

Category	Frequency	Percentage
Quantity surveyor	40	34.8
Contractor	24	20.9
Engineers	15	13.0
Architect	18	15.7
Builder	17	14.8
Others	1	0.9
Total	115	100

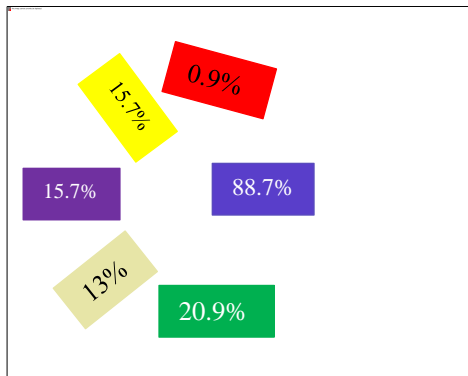


Figure 3: Category of construction stakeholder

Table 5 and Figure 4 below contains information about the type of project each respondent involved in. The building works has a valid percentage of 88.7%, civil engineering work has a valid percentage of 10.4% and heavy engineering work with 0.9%.

Table 5: Type of project involved in

Classification	Frequency	Percentage
Building works	102	88.7
Civil engineering work	12	10.4
Heavy engineering work	1	0.9
Total	115	100

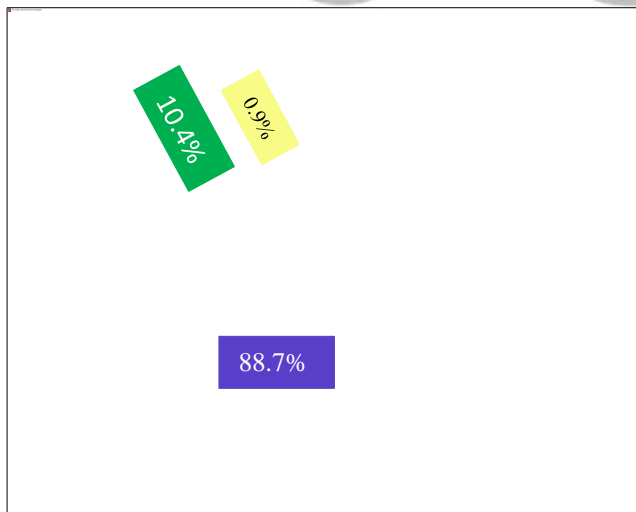


Figure 4: Type of project involved in

Factors responsible for deficient supervision of project work on construction sites

Table 6 indicates factors responsible for deficient supervision in construction work. It was revealed that inexperience supervisors, lack of proper planning, poor communication, high ratio of unskilled labours to skilled, unavailability of fund, setting wrong target, supervisor and workmen ratio, budget constraint, constant change in design at the construction stage and inadequate documentation of daily activities as the top ten factors responsible for deficient supervision in construction works, (M.S = 4.58, 4.48, 4.45, 4.23, 4.22, 4.09, 4.09, 4.04, 4.03 and 3.93) respectively. The table further present incomplete document, design error, payment delay, suspension of work and material shortage with mean score of 3.90, 3.89, 3.88, 3.83 and 3.69 respectively. Constant variation, material fabrication delay, inclement weather, government policy and labour disloyalty were the least rank factors responsible for deficient supervision in construction works with mean score of 3.66, 3.50, 3.49, 3.45 and 3.43 respectively. This opined that all the factors examined in this work were responsible for deficient supervision.

Table 6: Factors responsible for deficient supervision of project work on construction sites

Factors of deficient supervision	Mean	Rank
Inexperience supervisors	4.5826	1 st
Lack of proper planning	4.4870	2 nd
Poor communication	4.4522	3 rd
High ratio of unskilled labour to skilled	4.2348	4 th
Unavailability of fund	4.2174	5 th
Setting wrong target	4.0957	6 th
Supervisor and workmen ratio	4.0957	7 th
Budget constraint	4.0435	8 th
Constant change in design at the construction stage	4.0348	9 th
Inadequate documentation of daily activities	3.9304	10 th
Incomplete document	3.9043	11 th
Design error	3.8957	12 th
Payment delay	3.8783	13 th
Suspension of work	3.8348	14 th
Material shortage	3.6957	15 th
Constant variation	3.6609	16 th
Material fabrication	3.5043	17 th
Inclement weather	3.4870	18 th
Government policy	3.4522	19 th
Labour disloyalty	3.4261	20 th

V. CONCLUSION

In conclusion, this study identified three major factors contributing to deficient supervision of Construction Project, namely, the presence of inexperienced supervisors, a lack of effective planning, and poor communication. These findings align with previous research by Jakars and Radosavijevie (2013), Emmanuel, Emenike, Okechukwu, and Ifeanyi (2020), as well as Peter (2013).

VI. RECOMMENDATION

The study recommended offering thorough training for supervisors, placing emphasis on both practical skills and theoretical understanding. The crucial elements for the success of the project include the adoption of thorough planning procedures, which involve detailed scheduling and resource allocation. Additionally, creating transparent and open communication pathways among project stakeholders is imperative

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