

Impact of Skilled Labour on Project Performance in Nigerian Construction Industry

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Abstract

Nigeria's building industry is essential to the country's economic growth. Because they are primarily involved in the hands-on execution of building projects, skilled labourers are vital to both the continued existence and growth of the construction sector. Nigeria has an abundance of skilled labourers. The lack of skilled workers in the building industry is a global issue. The investigation looks into how skilled labour affects the project's success. in Nigeria's construction industry. Through a combination of surveys, interviews and questionnaires were administered to construction professionals, this research exposed how skilled labour influences project timeline, cost, quality and overall success of the project. The findings highlight the critical role of skilled labour in enhancing project performance and provide recommendation that address the challenges faced by the industry in term of workforce development.

Keywords: *Skilled Labour, Project Performance, Nigerian Construction Industry, Workforce Development*

Introduction

In Nigeria, the construction sector plays a key role in the creation of jobs, development of the economy, and the provision of infrastructure necessary for the success of other industries. In the construction industry, increasing workforce skills has been recognised as a need for improving the execution of projects. It is commonly known that labour skills during the completion of the project determine how well it performs, and these skills might have a bigger or lower impact on how well the project goes. According to Hossein et al. (2018), the construction business is labour-intensive. Furthermore, manpower expenses account for a sizeable percentage (30–50%) of the true overall price of building projects. In Nigeria, despite its important, construction industry faces numerous challenges, particularly concerning the availability and quality of skilled labour, skill gaps, and project inefficiencies. Skill labour is essential for ensuring the successful execution and delivery of construction projects, impacting timelines, cost and overall quality. This journal examines the link between skilled labour and project performance, stating the need for skilled workforce to meet the demand of construction in Nigeria. In order to properly account for the impact of skilled labour on project performance throughout the completion of the project, this study suggested an alternative method. For this reason, we develop a theoretical framework in which workers with varying skill levels influence the outcome of the project. In any industry, efficiency plays a crucial role in attaining goals that ensure durability and viability. According to Wong et al. (2015),

productivity is the primary metric for all activities inside a business because it determines the industry's longevity. Given that manpower is the most important resource in the construction business, labour skills are used to assess and access how well the project performed through the execution of the project (Wong et al., 2006). In order to ensure that the project is planned and implemented without tardiness, excessive costs, or postponement, it is important to fully understand the effect of competent workers on the execution of the project. The study's focus includes important players in the construction sector, including field engineers, supervisors, managers of projects, and project engineers. To help direct the inquiry, an inquiry question was posed: What exactly are the prevalent causes that currently occur that cause competent individuals to function poorly in the Nigerian construction industry? Nonetheless, the research procedure used to carry out this study is covered in this part. As will be mentioned below, a quantitative approach was used in this investigation. Key players in the state of Anambra's building industry made up the intended target demographics. The study employed convenience sample approaches for the administration of questionnaires. Following questionnaire evaluation, it was discovered that eighty participants altogether had received questionnaires. Nevertheless, 60 respondents, or 75% of the total number sent out, answered the survey questionnaire. This was the case because five of the questionnaires were deemed ineligible since they failed to be answered. Additionally, as of the time of this research, fifteen surveys had not been returned. since it was more challenging it also took a while to find the participant. On a Likert rating system with five possible points, questionnaires were distributed.

Need for the Study

One business that requires a lot of manpower and is dependent on worker skill sets is construction. One essential component for the ongoing and effective completion of building projects is a qualified labour workforce. Research indicates that in Nigeria's construction sector, labourers' productivity has not been assessed using either qualitative or quantitative approaches. The study's conclusions showed that bad skill evaluation, low motivation among employees, and inadequate supervision are the main obstacles to skill growth. The scarcity of qualified workers was found to be mostly caused by migration, technological advances, as well as a negative perception of working conditions. Furthermore, the investigation found that because there is not enough of skilled labourers, untrained labourers are filling in for expert labourers. So, the need for this study is based mainly on the economic important of construction industry, skilled labour shortage, impact on project performance. The importance of skilled labour in Nigeria's construction industry is the driving force behind the present research. The research study finally presented an organisational structure to improve workers' skills in order to accomplish successful completion of projects in the construction sector in Nigeria by taking into account the information previously mentioned.

Important of Skilled Labour

Skilled labour is defined as workers who have specialized training, knowledge and experience to perform complex tasks efficiently. Previous studies indicated that skilled labour significantly impact project outcomes, including quality, safety and productivity (Lerman,2017). One of the

main obstacles to the expansion and effectiveness of the construction sector within Nigeria is a scarcity of competent personnel (Aibinu & Jagboro, 2002).

Challenges in Nigerian Construction Industry

The Nigeria construction industry faces several challenges, such as

- Inadequate training programs and facilities for skill workers
- High turnover rates among skilled workers
- Inconsistent quality of construction project
- Limited adoption of modern construction techniques and technologies(dada,2012)

Skill Scarcity

A lack of expertise arises when employers find it challenging or impossible to fill vacant positions for a particular career field, or when there are specialised skill requirements within that field, given the present wage scale, work environment, as well as geographical area. Skills are the required abilities that can be professionally utilised in an appropriate setting for a specific purpose. In a particular field, shortages usually affect experienced and specialised workers. Moreover, the proportional rate of unemployed in general. A career field may be designated as scarce even in cases when there isn't enough of it in every specialty and it might only be scarce in certain geographic regions. The scarcity could be attributed to both government underfunding of Nigeria's educational sector as well as flaws in the educational system at the school level.

Causes of Skill Scarcity

The rise in the building sector has resulted in a deepening skills shortage. A shrinking pool of human resources results from the retirement of knowledgeable managers, professionals, and craftspeople as well as from an inadequate system of education and training. Due to choices in career range of motion, businesses struggle to find and keep skilled staff members. This is because they must compete with more alluring benefits, which raises turnover among staff members.

Within Nigeria today, there is a quiet high number of graduates from different universities of Nigeria. But a low number of them engage in the practice of their study career and a good number travel overseas for greener pasture. Construction has a skills profile that is biased towards those approaching retirement. The talent gap is expected to widen and building costs are projected to rise as experienced managers and artisans retire and there aren't enough new hires to take their place, creating an unwarranted strain on the industry.

Its Effect on Construction Industry

The biggest danger to the construction industry's sustainability is a lack of skilled workers, which will only get worse as the need for building work rises. The industry's growing lack of skilled workers is making it difficult for the construction sector to keep up with the rising demand for services it provides. Lack of skills has multiple detrimental repercussions on Nigeria's building

sector, these includes project delay, increased cost of building production, reduced quality of buildings delivered, reduced productivities.

Methodology

Design of Research

A combination of methods strategy is used in this investigation, which involves integrating both qualitative and quantitative methods of inquiry. Data gathering involves questionnaire distribution to construction firms, interviews with industry experts, and case study in ongoing construction projects in Anambra state.

Data collection

Questionnaires: Eighty (80) questionnaires were sent to contractors, managers of sites, and construction companies throughout the entire state of Anambra in order to collect information on the availability of trained personnel and how it affects the outcome of the project.

Interviews: conducted with 5 industry experts, including project managers, engineers, builders and few skilled personnel.

Case study: Five ongoing construction site were randomly selected to assess the influence of skilled labour on project outcomes.

Identification of factors affecting the project performance process based on the previous literature review.

A survey with a questionnaire designed to determine the key elements influencing the success of projects costs in the construction industry.

Pertinent data of selected sample of building construction project collected. The analysis of such data will help to show how the previously identified cost estimating factor can affect the project performance process.

Table -1: scale index

Average Indicator	Range
$1.0 \leq \text{Average Indicator} < 1.50$	vehemently disagree
$1.50 \leq \text{Average Indicator} < 2.50$	Disagree
$2.50 \leq \text{Average Indicator} < 3.50$	Indifferent
$3.50 \leq \text{Average Indicator} < 4.50$	Concur
$4.50 \leq \text{Average Indicator} < 5.00$	firmly concur

Utilising the average mean indicator scale that was chosen, as indicated in table No. 1 listed below, the survey data were examined to ascertain their significance.

Table 1: various causes of impact of labour on construction project performance

S/no	Reasons Why Labour Has a Significant Effect on the Success of Construction Projects.	Average Indicator	Rank
1	Poor compensation for competent employees	3.70	1
2	Failure to provide credentials for training to skilled individuals who meet the requirements after completion.	3.19	19
3	Inability of skilled employees to take advantage of public holidays.	2.96	22
4	Risks associated with on-site medical treatment and safety.	3.58	4
5	Skilled personnel being overworked while a project is being executed.	3.12	20
6	Standard compensation scales are absent for qualified workers.	3.55	5
7	Over rework by knowledgeable workers as a result of a building fault.	3.38	15
8	Disagreement between on-site skilled labourers.	3.34	16
9	Negatively impacted weather conditions.	3.26	18
10	The tardiness in delivering supplies and machinery to the location.	3.52	6
11	Programmes for skilled workers' vocational training has proven to be ineffective.	3.50	7
12	Insufficient facilities for qualified workers to acquire new skills.	3.65	2
13	Absence of tickets for complimentary meals for qualified workers.	2.92	23
14	Obsolete machinery for on-site use.	3.47	8
15	Compensation of skilled labourers is delayed.	3.45	9
16	Absence of free healthcare for skilled labourers.	3.42	10
17	Malfunctioning of plant machinery and onsite repairs.	3.40	11
18	Insufficiently provided free housing for skilled labourers.	3.30	17
19	Absence of gifts for professional workers throughout the holiday season.	3.07	21
20	Insufficient plants and equipment at the site.	3.37	12
21	Rearranging the project's execution sequence.	3.30	14
22	Absence of a programme offering bonuses to skilled personnel.	3.60	3

23	Inadequate access to free transportation for competent labourers.	3.34	13
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Discussion Of Findings

The finding from this study underscores the critical role of skilled labour in enhancing project performance. Skilled workers contribute to efficient project execution, reduced wastage and improve safety standards. The shortage of skilled labour in Nigerian's construction industry is a pressing issue that requires strategic intervention.

Conclusion

The construction sector is a people-centred sector that employs workers who are both skilled and unskilled. The primary objective of this research was to quantitatively model how skilled labour affects the execution of projects. One of the main goals of this study is to determine the reasons behind the underperformance of qualified workers in Anambra state's construction projects. To that end, a survey with a questionnaire is used in the course of the investigation.

According to the outcomes, inadequate pay, insufficient availability of adequate skill development facilities, an absence of rewards programmes, the susceptibility to safety and health care services, as well as an absence of established wage structures for highly skilled employees place most evident among the factors contributing to the skilled workforce inadequate supply on a rating system of one to five (1-5).

The correlation coefficient shows that if the various causes of skill shortage increases then their impact on construction industry also increases in the same manner.

Recommendations

Constrictions in Nigeria have faced many challenges, here are some recommendations to optimized the influence of skilled labour performance.

- Employment of skilled worker should be done in such a way that qualified and experienced workers are employed to ensure quality and standard in the construction industry.
- **Enhance training programs:** development of comprehensive vocational training and apprenticeship programs
- **Government policies:** implementation of policies to incentivize skill development centers.
- **Industry collaboration:** Encouraging partnership between construction firms, educational institutions and government agencies to bridge the skill gap.
- **Increase wage/salaries of skill worker:** Skilled workers should be motivated to prevent jakpa syndrome that face Nigeria professional.
- Government and private sectors should build skill acquisition centers where labourers will obtain practical experience after school to enhance their expertise.
- Adequate safety and health measures should be provided for the skilled workers because of the risky nature of their job.
- Raising awareness about career opportunities in the construction industry to attract young people to the profession.

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