The Influence of Unskilled Labour on the Design and Construction Methodologies in the Nigerian Construction Industry

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DOI:10.56201/ijemt.v10.no6.2024.pg38.44

Abstract

The Nigerian construction industry's reliance on unskilled labor significantly influences design and construction methodologies. This paper explores the multifaceted impact of unskilled labor on project outcomes, examining both the advantages and drawbacks of their employment. While unskilled labour offers cost advantages and potential for on-the-job training, their lack of specialized skills often leads to reduced productivity, extended project timelines, and compromised quality. The study underscores the importance of strategic management practices, including rigorous training programs and incentivization, to mitigate these challenges. By investing in skill development and fostering a culture of continuous learning, the Nigerian construction industry can enhance project efficiency, quality, and overall sustainability.

Keywords: *Unskilled Labour, Construction Industry, Nigeria, Productivity, Training Programs*

Introduction

The Nigerian construction industry plays a vital role in the country's economic development, contributing significantly to the Gross Domestic Product (GDP) (Aina, 2023). However, this sector faces a persistent challenge – the widespread employment of unskilled labour (Aina, 2023). This phenomenon can be attributed to several factors, including a limited pool of skilled artisans due to inadequate vocational training programs (Bheemaiah & Smith, 2015), a lack of investment in modern construction plants and equipment (World Bank, 2023), and financial constraints faced by construction companies, particularly in the public sector (Alagbe & Idrus, 2013).

While unskilled labour offers a readily available and seemingly cost-effective workforce, their deployment often comes at a significant cost to project outcomes. The lack of specialized skills and proper training among unskilled workers can lead to a multitude of problems.

Despite these drawbacks, the employment of unskilled labour also presents some advantages. Their lower wages can be attractive to cost-conscious construction companies, particularly for smaller projects with limited budgets (Hussain et al., 2020). Additionally, unskilled workers hold the potential to be trained on the job, gradually acquiring the necessary skills to become valuable assets in the construction workforce (Amoah & Mbekushe, 2022).

Recognizing the significant impact of unskilled labour on project success, researchers and industry professionals advocate for strategic management practices. These strategies include:

Literature Review

Workers who undertake duties that call for little formal education, classroom instruction, or specialised skills to perform their jobs satisfactorily are referred to as unskilled labour. These professions usually require basic activities with clear instructions or repeated manual labour.

Unskilled labourers frequently possess little to no professional training or education relevant to the task they do (Kondrup, 2015). They can pick up the required skills on the job by watching more seasoned employees or by receiving quick training. The majority of unskilled labour positions include repetitive, clearly defined duties that call for little in the way of problem-solving or decision-making abilities.

Although all professions involve some degree of ability and expertise, it's crucial to remember that the phrase "unskilled labour" is debatable. It is still a widely used phrase, nonetheless, to set apart employees with specialised training from those with fewer formal degrees.

A major obstacle facing Nigeria's construction sector is the country's severe lack of professional instructional options (Scott, 2023). The lack of skilled labour creates a bottleneck that prevents the sector from growing and prospering (Bheemaiah & Smith, 2015). The shortage of technical colleges and vocational training centres, together with insufficient funding and out-of-date curricula that don't keep up with the changing needs of the construction industry, are the main causes of the issue (Akintola & Alara, 2018). Due to this educational gap, there is a sizable pool of unskilled labourers who are readily available but frequently lack the technical know-how and practical abilities needed to contribute successfully to contemporary building projects (Adenuga, 2013).

This labour force's lack of skill has far-reaching effects. Due to poor worker productivity and the requirement for ongoing supervision, construction projects frequently experience delays and schedule interruptions (Amoah & Mbekushe, 2022, Vrijhoef & Van der Veer, 2017). In addition, inadequate training may result in more mistakes and omissions during construction, endangering the calibre and security of infrastructure and structures (Love et al., 2017). For building companies, this might therefore have serious financial consequences, necessitating rework and possibly resulting in legal challenges.

For the Nigerian construction sector to thrive and develop sustainably, it is imperative that this gap in educational attainment be closed. Through the implementation of apprenticeship programmes, curriculum updates to align with industry best practices, and investment in vocational training programmes, Nigeria can develop a skilled labour force that can effectively and safely complete high-quality construction projects.

Nigeria's building industry is essential to the country's economic growth, as has been previously mentioned above. The industry makes a substantial contribution to the GDP (National Bureau of Statistics, 2024) and is in charge of generating jobs, promoting the expansion of the nation's infrastructure, and reshaping its terrain. On closer inspection, though, the scene is dynamic and multifaceted, full of opportunities as well as difficulties.

In recent years, Nigeria's building industry has grown remarkably. The sector has grown at double-digit rates thanks to factors like a growing population, increased urbanisation, and government funding for infrastructure projects (Dantata, 2008). Participants in the value chain of the industry have interesting potential as a result of this expansion. A significant factor in meeting the rising need for housing & office space is real estate development, especially in both commercial and residential markets (Agbola & Adetunji, 2017). Roads, bridges, and railroads are examples of transportation infrastructure that must be invested in if one is to connect isolated areas and promote economic activity.

The Nigerian construction sector is not devoid of creative solutions, despite its difficulties. In certain areas, the use of construction technologies presents a viable future. For example, Building Information Modelling (BIM) can facilitate building procedures, optimise project design, and foster collaboration (Succar et al., 2012). Prefabricated construction methods can also guarantee higher quality standards and speed up project completion.

Research Methodology

The research adopted a qualitative design and an interpretivist philosophy guided the study. The research was carried out in two phases. The first phase was an open-ended interview where 11 construction company owners were interviewed about the employment of unskilled workers in their projects. Following the findings from the interview, a semi-structured questionnaire was administered to construction professionals. There was a total of 37 respondents to the questionnaire.

Discussion of Findings

The study finds that the employment of unskilled workers had three main influences on design and construction methodologies which bounded around low productivity, increased work duration and an attendant need for close supervision.

Low quality & productivity

Because they lack sufficient knowledge of appropriate techniques and materials, unskilled workers have a greater tendency to make mistakes. This resulted in rework, where mistakes had to be fixed, which increased the project's time and expense significantly. Furthermore, poor quality caused by inexperienced personnel jeopardised the final product's safety and structural integrity.

Increased work duration

Inexperienced workers need more time to comprehend directions, finish tasks correctly, and deal with unforeseen difficulties on the job site. This has a big effect on project timetables because a single task's delay can cause the entire building process to stall, delaying subsequent tasks. This is consistent with earlier research by Amoah & Mbekushe (2022).

Need for close supervision

Owing to their inexperience, unskilled workers frequently need more supervision to make sure jobs are completed correctly and safety procedures are followed. This further reduces the efficiency of the project as a whole by taxing supervisory resources and limiting the attention given to seasoned employees.

Conclusion and Recommendations

In conclusion, using a lot of unskilled labour in construction can have a cascading effect that results in higher project costs, longer project timeframes, and possibly lower project quality. Construction businesses may lessen these difficulties and guarantee that projects are completed on schedule and under budget by making investments in training programmes and giving priority to a trained crew.

To ameliorate the prevalent condition, the following are recommended:

Implementing training programs

Implementing training programs can significantly benefit unskilled workers in the construction industry by empowering them with new skills, boosting their confidence, and ultimately increasing their employability. Training programs provide unskilled workers with the opportunity to acquire the technical skills and knowledge required for specific construction tasks. This can include learning about the proper use of tools and equipment, following safety protocols, and understanding construction methods. These newfound skills can transform unskilled workers into valuable assets on a construction site, allowing them to contribute more effectively and efficiently. As unskilled workers gain new skills and knowledge through training, their confidence in their abilities grows. This increased confidence translates to improved job performance. Workers are less likely to hesitate or make mistakes, leading to better quality work and a sense of accomplishment. By acquiring valuable skills through training programs, unskilled workers become more marketable in the construction industry. They are qualified for a wider range of construction jobs and potentially higher-paying positions. This not only improves their financial security but also motivates them to further develop their skills and advance their careers.This same view is shared by Akintola & Alara (2018), Akintola et al. (2019), Loosemore et al. (2017) and Salleh et al. (2012).

Providing incentives

Providing incentives in the construction industry can be a powerful tool for motivating unskilled workers, leading to improved performance, increased engagement, and ultimately a more productive workforce. By implementing a well-designed incentive program, construction companies can create a win-win situation for both employers and unskilled workers. Workers are motivated to perform better and develop their skills, while companies experience increased productivity, reduced costs, and a more reliable workforce. Financial incentives, such as bonuses tied to productivity or quality targets, can significantly motivate unskilled workers to put in extra effort and strive for better performance. Recognition programs, like "worker-of-the-month," can also serve as a powerful motivator, boosting morale and encouraging a sense of achievement. Offering incentives like attendance bonuses or perfect attendance rewards can incentivize unskilled workers to show up for work consistently, reducing absenteeism and its associated costs. Additionally, by providing career progression opportunities or training opportunities as incentives, companies can encourage skilled workers to stay with the company for longer periods, reducing costly employee turnover. Incentives can be designed to encourage participation in training programs. For example, offering bonuses upon completion of training courses can motivate unskilled workers to invest their time and energy in acquiring new skills, ultimately benefiting both themselves and the company. The recommendation of providing incentives agrees with the works of Akintola et al. (2019), Loosemore et al. (2017), Goulding et al. (2016) and Ibrahim et al. (2012).

Fostering skill development

By fostering a culture of continuous learning, construction companies cultivate a workforce that is not only more skilled and adaptable but also more collaborative and innovative. Skilled workers can mentor and share knowledge with unskilled workers, further accelerating the upskilling process and creating a more cohesive and efficient team. This focus on continuous learning ensures that the company remains competitive in a rapidly evolving industry while empowering its workforce to reach their full potential. A culture of continuous learning provides unskilled workers with the chance to participate in training programs and acquire new skills. This upskilling process can help them bridge the gap between their current skillset and the requirements of more specialized roles, opening doors to career progression and higher earning potential. Feeling valued and supported in their professional development can significantly boost the motivation and engagement of unskilled workers. When they see a clear path for growth within the company, they are more likely to be invested in their work and contribute their best effort. By providing training on proper safety protocols and construction methods, a culture of continuous learning reduces the risk of errors and accidents on the job site. Unskilled workers become more aware of safety hazards and better equipped to perform their tasks correctly, ultimately leading to a safer work environment for everyone. This agrees with similar works by Hinze (1997), Akintola & Alara (2018), and Ibrahim et al. (2012).

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