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Assessment of Employees Performance Rating in the Nigerian Construction Industry

Aliyyu Abiola Abdulraheem[1]*, Daniel Ichekani Agada[2], Oluwafemi Deborah Ajala[3] and Kehinde Victor Adio[4]

[1]Department of Building and Quantity Surveying, Faculty of Environmental Sciences, University of Abuja, Nigeria
[2]Department of Building, Faculty of Environmental Studies, University of Uyo, Nigeria
[3]Department of Building, Federal University of Technology, Minna, Nigeria
[4]Department of Building Technology, Federal Polytechnic Offa, Nigeria

Corresponding Author: aliyu.abdulraheem@uniabuja.edu.ng

ABSTRACT

This study examines the influence of working circumstances on the performance of professionals within the Nigerian construction sector, with a particular emphasis on Abuja as the focal area of study. This study reveals a deficiency in comprehending the correlation between working conditions and employee performance within the Nigerian construction sector. A quantitative approach is adopted, employing a questionnaire-based survey administered to construction professionals registered with relevant professional bodies. Findings reveal that professionals predominantly work in the private sector, with a diverse representation of architects, builders, engineers, and quantity surveyors. The study underscores the significance of physical environment, health and safety, and organisational communication in influencing employee performance. Customer satisfaction, time management, and effectiveness of employees emerge as pivotal variables in measuring performance within the construction industry. Results indicate a positive perception of working conditions among respondents, emphasising physical environment and health and safety measures. Moreover, the study finds a strong association between certain working conditions and key performance indicators such as customer satisfaction and quality output. This study contributes to the existing body of knowledge by illuminating the unique dynamics of working circumstances and their influence on employee performance in the Nigerian construction industry, this study adds to the body of knowledge already in existence. It underscores the importance of addressing working conditions to enhance productivity and organisational effectiveness. The findings provide valuable insights for policymakers, industry practitioners, and organisational leaders seeking to improve working conditions and optimise performance within the construction sector.

Keywords: Construction industry, Employee performance, Nigeria, Professional practitioners, Working conditions

INTRODUCTION

Working conditions encompass the environment in which individuals operate and the amalgamation of circumstances that influence employees within their workplace (ILO, 2019). These factors encompass a range of elements, including physical surroundings, work hours, breaks, scheduling, compensation, mental demands, and the rights and obligations of employees. Similarly, Polek-Duraj, (2013) underscores the significance of working conditions irrespective of an organisation's size, specifications, or geographical location. Aniekwu and Audu, (2010) have identified various impediments faced by the construction industry in Nigeria, stemming from challenges such as technological complexity, ineffective policies and procedures, institutional weaknesses, and unfavourable working conditions compounded by intricate social and cultural

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dynamics. The construction sector has garnered a reputation as one of the most critical and hazardous industries to work in, both developed and developing nations, primarily due to its subpar working conditions. This sector grapples with chronic issues related to inadequate quality standards and health and safety (H&S) procedures, which have a negative impact on construction productivity, overall performance, and corporate reputation (Abrey and Smallwood, 2014).

Abrey & Smallwood, (2014) investigated the repercussions of inadequate working conditions on productivity within the construction sector. Their findings revealed that substandard working environments detrimentally impact the industry's performance and reputation. A study conducted in South Africa highlighted how excessive noise levels diminish morale and job satisfaction among construction workers, ultimately impeding project performance. Furthermore, it was noted that the working conditions in the construction industry were deemed subpar. In a study focusing on road construction in India, Garg, (2018) explored employees' working conditions and labour welfare. The research revealed a lack of adequate bonuses, incentives, and safety measures organisations provide to their workforce.

Similarly, Polek-Duraj, (2013) evaluated the quality of working conditions about employee productivity, conducting research in Poland. The study underscored the significant role of working conditions in shaping workers' performance. This aligns with the notion that employee performance is tied to completing tasks and aspects such as finding meaning in their work and having supportive colleagues or employers, as discussed by (Karakas, 2010). Aggarwal *et al*., (2014) conducted research to analyse how an organisation's working conditions affect the overall performance of its employees. Their findings revealed that enhancing the working environment leads to improved employee efficiency and productivity. Manu, (2015) delved into the impact of the work environment on employee productivity within government organisations, uncovering a noteworthy correlation between workplace conditions and workers' performance. The study concluded that a conducive environment positively influences employees' productivity and performance. Similarly, Malik *et al*., (2011) explored the relationship between the work environment and employees' performance in Pakistan. Their study unveiled a robust and significant association between the physical environment and employees' performance.

Additionally, the research emphasised the crucial role of physical working conditions, communication practices, training, and development in determining employees' performance. It was suggested that, enhancing working conditions could lead to an increase in employees' performance. In line with these findings, Samson *et al*., (2015) affirmed the impact of the workplace environment's physical and psychosocial aspects on employee performance. Their study highlighted the importance of fostering a balanced working environment that promotes employee well-being and productivity. Organisations were recommended to cultivate a culture that prioritises creating such an environment to optimise employee performance.

The examined literature makes it clear that, particularly in the study's geographic area, no studies have been conducted evaluating the effects of working conditions on the performance of construction professionals in Nigeria's construction industry. The industry's deplorable working conditions accompany this understanding. With a focus on professionals and Abuja as the study location, this study aims to evaluate how working circumstances affect workers' performance in Nigeria's construction sector. Hence, this study identifies the employee performance ratings in the Nigeria building

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industry. The study's findings will advance our understanding of workplace circumstances, not only in construction-based organisations but also in corporate businesses as a whole. The management teams and decision-makers in the industry and the country at large will ensure that critical rules, regulations, and policies that will improve the working conditions of employees are put in place. With these, the employees in the construction industry will be able to make demands for proper working conditions that will positively influence their health and safety, morale, remuneration, satisfaction, retention, productivity and overall performance of projects and the organisations.

REVIEW OF RELATED LITERATURE

Working Conditions and Employee Performance in the Construction Industry

Per the working definition adopted by this study, working conditions encompass both the physical surroundings as well as different facets of a worker's terms and circumstances. Performance, on the other hand, is evaluated based on how well a worker completes the tasks they are given, making sure that they meet the organization's requirements. Effective management, development, and motivation of employees are crucial elements for organisational performance. Organisations that leverage firm-specific knowledge for their competitive advantage may opt to enhance working conditions to reduce employee turnover and mitigate the risk of losing out to competitors. This strategic approach recognises the potential link between non-monetary working conditions and higher employee performance, which may necessitate increased investment by employers to retain valuable talent. Furthermore, in a competitive labour market where rivals offer favourable working conditions, employers may need to raise wages to attract and retain skilled workers.

Anitha, (2014) underscores the significance of the physical working environment, emphasising its impact on employee output. Poorly ventilated or excessively hot workplaces can significantly impair employee effort and productivity. Adequate provisions such as protective clothing, drinking water, restrooms, and first aid facilities are essential to employee well-being and performance. Bornstein, (2007) echoes this sentiment, highlighting the detrimental effects of stressful working conditions on employee performance and service delivery. Conversely, favourable working conditions have been shown to enhance productivity and positively influence service delivery. Moreove r, Nduku *et al*., (2015) discovered a favorable correlation between employee performance, internal organizational communication, occupational health and safety, and physical conditions. This underscores the importance of fostering a supportive and safe working environment and promoting effective communication within organisations as integral factors for enhancing employee performance.

Performance rating of employees in the construction industry

Tunji-Olayeni *et al*., (2016) assert that, performance assessment in the construction industry commonly revolves around several critical criteria, including cost, time, quality, customer satisfaction, and project profitability. Similarly, Hakala, (2008) emphasises that, employee performance is evaluated based on various factors such as quality of work, quantity, timeliness, and cost-effectiveness. Additionally, Bourn, (2001) highlights the importance of supply chain management in enhancing the efficiency and effectiveness of construction firms, suggesting that optimised supply chain practices contribute to improved performance outcomes.

Moreover, given the labour-intensive nature of the construction industry and the persistent shortage of skilled workforce (Hegazy *et al*., 2000), ensuring employee

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satisfaction becomes imperative for retaining talent. Employee satisfaction plays a crucial role in the performance of construction firms, regardless of their size. Table 1 provides a comprehensive overview of the variables considered for evaluating employees' performance within the construction sector. This synthesis of perspectives underscores the multifaceted nature of performance evaluation in construction. It reflects a holistic approach considering various dimensions, including cost-effectiveness, timeliness, quality, customer satisfaction, and supply chain management. Furthermore, it acknowledges the significance of addressing workforce satisfaction to enhance overall organisational performance amidst the industry's challenges related to workforce shortage and labour-intensive operation.

Table 1: Performance rating of employees in the industry

S/N	Performance rating variables	Sources
1	Quantity of work done	Hakala, (2008)
2	Policy compliance	Hakala, (2008)
3	Safety consciousness	Hakala, (2008)
4	Profit on project	Hakala, (2008)
5	Employee satisfaction	Hakala, (2008)
6	Supply chain management	Hakala, (2008)
7	Manager appraisal	Hakala,(2008); Tunji-Olayeni *et al.,* (2016)
8	Self-appraisal	Hakala,(2008); Tunji-Olayeni *et al.,* (2016)
9	Peer appraisal	Hakala,(2008); Tunji-Olayeni *et al.,* (2016)
10	Labour productivity	Hakala, (2008)
11	Team work	Hakala, (2008)
12	Gossip and other personal habits	Hakala, (2008)
13	Personal appearance /grooming	Hakala, (2008)
14	Efficiency of employee	Hakala,(2008); Tunji-Olayeni *et al.*.(2016)
15	punctuality of employees	Hakala,(2008); Tunji-Olayeni *et al.*,(2016)
16	Cost optimisation	Hakala,(2008); Tunji-Olayeni *et al.*,(2016)
17	Profit maximisation	Hakala, (2008)
18	Material management	Hakala, (2008)
19	Quality output	Hakala,(2008); Tunji-Olayeni *et al.,* 2016)
20	Customer satisfaction	Tunji-Olayeni *et al.,* (2016)
21	waste minimisation	Hakala, (2008)
22	Skill development	Hakala, (2008)
23	Time; how fast the work was done	Hakala,(2008); Tunji-Olayeni *et al.*,(2016)
24	Effectiveness of employee	Hakala, (2008); Tunji-Olayeni *et al.,* (2016)
25	Reduced rework	Hakala,(2008); Tunji-Olayeni *et al,.* (2016)

MATERIALS AND METHODS

Research Design

The research design is a comprehensive framework that guides researchers in methodically answering the research questions. The research design must encompass clear objectives, research questions, data collection resources, and identification of constraints that may impact the research process (Shamsudin, 2017). Typically, research involves a set of inquiries that need to be addressed, and the research design plays a crucial role in outlining the methodology to address these inquiries (Bhat, 2019). In this study, a quantitative approach, specifically an empirical study, is adopted. This approach entails the systematic generation of quantitative data that can be subjected to thorough analysis (Kothari, 2004).

Population

The population comprises the complete set of fundamental components relevant to the study from which conclusions are to be derived (Cooper & Schindler, 2014). Study information is obtained from a target

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population with similar characteristics to generalise the examination result (Naoum, 1999; Kombo and Tromp, 2006). The population for this study is 10,348, and it comprises of professionals working with construction-based organisations (both private and public). These professionals are registered Architects, Builders, Engineers and Quantity surveyors practising within Abuja, Nigeria. Abuja was chosen for the study because it is the country's administrative centre, with many construction and consultancy firms having their head office or branches in the country's capital (Aje *et al.,* 2015). Onyeagam *et al*., (2019) posit that numerous construction projects are being executed daily in Abuja. It was additionally noted that Abuja is a major metropolitan city in Nigeria, housing one of the largest populations of construction experts employed in construction or consulting organizations inside the built environment (Saidu & Shakantu, 2016).

Sampling Frame

A sample frame denotes a compilation of locations, individuals, institutions, professional organizations, associations, or other entities from which study samples are extracted. (Saunders *et al.,* 2007; Cooper & Schindler, 2014). The sampling frame for this study is the list of registered members of the following construction-based professional bodies, obtained from their various secretariats in Abuja: Nigerian Institute of Architects (NIA), Nigerian Institute of Building (NIOB), Nigerian Society of Engineer (NSE), and Nigerian Institute of Quantity Surveyors (NIQS).

Sample Size

The sample size is inherently linked to the population under study, representing a subset selected to fulfil the research objectives (Kolawole, 2005; Cooper and Schindler, 2014). A sufficiently large sample size is deemed representative (Cooper and Schindler, 2014). In this study, a sample size of 371 was determined utilising the formula developed by Krejcie and Morgan (1970) at a confidence level of 95%.

$$s = X^2 NP(1-P) \div d^2(N-1) + X^2 P(1-P) \quad \text{..... 1.1}$$

Where;

s = sample size from finite population
X = based on a confidence level of 1.96 for 95% confidence was used for this study
d = precision desired, expressed as a decimal (i.e. 0.05 for 5% used for this study
P = estimated variance in population as a decimal (i.e. 0.5 for this study)
N= total number of population, 10,348

$$s = \frac{1.96^2 \times 10{,}348 \times 0.5 \times (1-0.5)}{(0.05^2 \times (10{,}348 - 1)) + (1.96^2 \times 0.5 \times (1-0.5))}$$

$$= \frac{9938.2192}{(25.867 + 0.9604)}$$

; $s = 370.4062$

$$= \frac{9938.2192}{26.8279}$$

Therefore, s = 371

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Therefore, the sample size for the study is 371. 371 questionnaires were distributed, and 171 were returned. Following a thorough analysis, 165 of these responses were deemed valid, while six were disregarded due to inadequate or incomplete answers. This translates to an effective response rate of 44.47%. This response rate is considered satisfactory in a study aiming to elicit feedback from construction industry professionals. According to Moser and Kalton (1999) and Akintoye (2000), a response rate of 44.47% exceeds the ideal 20-30% range for ensuring an unbiased construction-based survey.

Sampling Technique

Sampling aims to facilitate the systematic collection and processing of data within research endeavours (Kothari, 2004). This study employed the random sampling technique for questionnaire administration and data collection. This approach ensured that each sample had an equal likelihood of being chosen, promoting fairness in the selection process.

Method of Data Analysis

The collected data were analysed using descriptive statistics and factor analysis.

The formula for Mean item score (MIS) is written as:

$$\text{Mean Item score (MIS)} = \frac{5n_5 + 4n_4 + 3n_4 + 2n_2 + 1n_1}{n_5 + n_4 + n_3 + n_2 + n_1} \quad \ldots\ldots\ldots\ldots (3.2)$$

The formula for the Relative Important Index is written as

$$\text{Relative Important Index (RII)} = \frac{\sum P_i U_i}{A \times N} \quad \ldots\ldots\ldots\ldots\ldots\ldots 3.3$$

Where;

P_i = respondent rating of factors,

U_i = number of respondents placing identical weighting/rating on factor

A = highest weighting (5 in this case)

N = Sample size

Reliability and Validity

Reliability is defined as the degree of accuracy and precision of the measuring technique (Cooper and Emory, 1995). Binyam *et al.,* (2016) posited that, consistency is consistent when the computed values of Cronbach Alpha are more significant than 0.5. It was suggested that an alpha value more excellent than 0.7 means higher and better data reliability (Oyedele *et al.*, 2003). The result of Cronbach's Alpha is 0.826, indicating higher reliability and suitability for further analysis.

RESULTS

The characteristics of the professionals shows that, 58.79% work with private sector organisations and 41.21% work with public sector organisations. Regarding professional representations, 16.36% are architects, 14.55% are builders, 38.79% are engineers, and 30.30% are quantity surveyors. Moreover, 34.55% of the respondents had a BSc/B. Tech, 24.24% had a Master's degree, 20.61% had a PGD, 18.79% had HND, and 1.82% had a doctoral degree. Also, the respondents' average year of work experience is 11.04 years. Regarding their professional membership, 36.36% are MNSE, 27.88% are MNIQS, 13.33% are MNIA, 12.12% are MNIOB, and 10.30% have yet to get professional certification.

Furthermore, the result also revealed that, their organisations focus more on the physical environment (44.85%), followed by health and safety (30.30%), and lastly, organisational communication (24.85%). Many of them stated that, they enjoy good

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working conditions in their workplaces. The result in this section shows that, professionals are experienced enough and have the requisite experience to take an active part and give reliable information on the subject of this study.

Employee Performance Rating Within the Building Industry

Table 2 demonstrates the outcomes of the factors and their application in assessing employee performance. It can be seen that customer satisfaction with (MIS=4.83), Time; how fast the work was done and quality of work done with same value of (MIS=4.82), Effectiveness of employee (MIS = 4.81), reduced rework (MIS=4.78), Efficiency of employee (MIS=4.74), Quality output (MIS=4.69), Policy compliance (MIS=4.63), punctuality of employees (MIS=4.59), and Profit maximisation (MIS=4.23). The least ways of measuring employees' performance are Personal appearance/grooming (MIS=3.12), Labour productivity (MIS=3.05), Employee satisfaction (MIS=2.99), Gossip and other personal habits (MIS=2.82), and peer appraisal (MIS=2.82). With an average MIS of 3.95 (79.06%) for all the ways, this implies that all the variables contained in Table 2 are vital to measuring employee performance in an organisation. Customer satisfaction, time, turnaround time, quality of work, effectiveness, decreased rework, efficiency, quality output, policy compliance, employee punctuality, and profit maximization are the variables used in this study to measure employee performance.

These findings align with those of Hakala, (2008) and Tunji-Olayeni *et al*., (2016), who emphasise the critical criteria commonly used to assess performance in the construction sector, including cost, time, quality, customer satisfaction, and project profitability. However, this study diverges from Tunji-Olayeni *et al*., (2016) regarding the factors considered for performance measurement. Tunji-Olayeni *et al*., (2016) do not include supply chain management and employee satisfaction as criteria for evaluating performance. In contrast, Hakala, (2008) underscores the importance of quality, quantity, and timeliness in performance assessment, alongside cost-effectiveness. According to Tunji-Olayeni *et al*., (2016) the critical parameters for measuring performance in construction are cost, time, and quality. These parameters must be integrated to ascertain employee performance effectively. The effectiveness of employees and the quality of work are crucial for project success, as adherence to set standards ensures the absence of errors or substandard work.

Table 2: Employee performance rating

Factors	MIS	SD	Rank
Customer satisfaction	4.83	0.53	1st
Time; how fast the work was done	4.82	0.39	2nd
Quantity of work done	4.82	0.39	2nd
Effectiveness of employee	4.81	0.52	4th
Reduced rework	4.78	0.78	5th
Efficiency of employee	4.74	0.72	6th
Quality output	4.69	0.46	7th
Policy compliance	4.63	0.56	8th
Punctuality of employees	4.59	0.61	9th
Profit maximisation	4.23	1.14	10th
Supply chain management	4.18	1.32	11th
Profit on project	4.04	1.55	12th
Safety consciousness	3.99	1.43	13th
Self-appraisal	3.99	1.43	14th
Material management	3.78	1.40	15th
Waste minimisation	3.71	1.35	16th
Manager appraisal	3.70	1.29	17th

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Cost optimisation	3.24	1.50	18th
Team work	3.24	1.48	19th
Skill development	3.22	1.38	20th
Personal appearance /grooming	3.12	1.27	21st
Labour productivity	3.05	1.09	22nd
Employee satisfaction	2.99	1.04	23rd
Gossip and other personal habits	2.82	1.01	24th
Peer appraisal	2.82	1.01	24th

DISCUSSION

The findings of this study resonate with the literature reviewed above, aligning closely with the insights provided by previous research on the nexus between working conditions and employee performance within the construction industry. Abrey and Smallwood, (2014) highlighted the detrimental effects of unsatisfactory working conditions on productivity and corporate image in the construction sector, a sentiment echoed by our study's findings. Similarly, Garg, (2018) emphasised the importance of adequate safety measures and incentives in enhancing employee well-being and performance, which aligns with our identification of health and safety as crucial aspects of working conditions.

Polek-Duraj, (2013) and Manu, (2015) underscored the significant impact of working conditions on employee productivity and performance, findings that resonate with our study's emphasis on factors such as physical environment and organisational communication. The positive relationship between conducive working environments and employee satisfaction and engagement, as Aniekwu & Audu, (2010) highlighted, further reinforces our findings regarding the importance of addressing working conditions to enhance overall performance.

Furthermore, identifying key performance indicators such as customer satisfaction and quality output in our study aligns with the research conducted by Tunji-Olayeni *et al*., (2016), which emphasised the importance of these factors in evaluating performance within the construction industry. The emphasis on customer-centric approaches and the delivery of high-quality services is consistent with the literature's recognition of the critical role played by client satisfaction in driving project success.

CONCLUSION

In conclusion, this study delves into the critical relationship between working conditions and employee performance within the Nigerian construction industry, specifically focusing on professionals operating in Abuja. Several key insights have emerged through a quantitative research approach and comprehensive data analysis, shedding light on the nuanced dynamics shaping productivity and organisational effectiveness in this sector. The findings underscore the multifaceted nature of working conditions, encompassing physical environment, health and safety measures, and organisational communication. These factors play a pivotal role in influencing employee performance, as highlighted by the positive correlation between certain aspects of working conditions and key performance indicators such as customer satisfaction and quality output. Professionals within the industry perceive working conditions favourably, particularly regarding the physical environment and health and safety provisions.

Furthermore, the study reveals the significance of factors such as customer satisfaction, time management, and effectiveness of employees in measuring performance within the construction industry. These variables serve as essential benchmarks for assessing the impact of

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working conditions on overall productivity and project outcomes. The emphasis on customer satisfaction underscores the importance of meeting client expectations and delivering high-quality services, which are closely intertwined with the working conditions experienced by professionals. Importantly, this study's findings have implications for policymakers and industry practitioners. By recognising the critical role of working conditions in shaping employee performance, policymakers can prioritise initiatives to improve workplace environments and enhance health and safety standards within the construction industry. Similarly, organisational leaders and managers can leverage these insights to implement targeted strategies for optimising working conditions and employee productivity.

Study implication

The findings of this study hold several important implications for various stakeholders within the Nigerian construction industry and beyond. Firstly, policymakers and regulatory bodies can utilise the insights gained to inform the development and implementation of policies to improve working conditions and enhance employee performance. By prioritising initiatives focused on health and safety standards and promoting better organisational communication, policymakers can contribute to a more conducive work environment and ultimately drive productivity and competitiveness within the construction sector.

Secondly, industry practitioners and organisational leaders can leverage the findings to implement targeted strategies for optimising working conditions and employee productivity. This may involve investing in infrastructure improvements to create safer and more ergonomic workspaces and fostering a culture of open communication and employee engagement. By prioritising factors such as customer satisfaction, time management, and effectiveness of employees, organisations can enhance overall project outcomes and strengthen their competitive position in the market.

Additionally, the study underscores the importance of professional development and training initiatives to equip construction professionals with the skills and knowledge necessary to thrive. By investing in skill development and promoting a culture of continuous learning, organisations can enhance employee performance and contribute to the long-term sustainability of the construction industry. Furthermore, the findings highlight the need for greater collaboration and knowledge-sharing among industry stakeholders. By fostering partnerships between government agencies, industry associations, and educational institutions, stakeholders can work together to address common challenges and drive innovation within the construction sector.

Recommendation and Future Study Direction

Recommendations

Based on the findings of this study, several recommendations can be made to enhance working conditions and improve employee performance within the Nigerian construction industry. Firstly, policymakers should prioritise developing and enforcing regulations to promote health and safety standards in construction workplaces. This may involve strengthening compliance mechanisms, providing incentives for companies that adhere to best practices, and implementing penalties for non-compliance. Additionally, efforts should be made to enhance organisational communication channels, fostering transparency and collaboration between management and employees.

Furthermore, industry practitioners and organisational leaders should invest in

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infrastructure improvements to create safer and more conducive work environments. This may include upgrading facilities, providing adequate personal protective equipment, and implementing ergonomic designs to reduce the risk of work-related injuries and illnesses. Moreover, organisations should prioritise training and professional development initiatives to equip employees with the skills and knowledge necessary to excel in their roles. By investing in employees' well-being and professional growth, organisations can enhance overall performance and productivity.

Future Studies Direction

While this study provides valuable insights into the relationship between working conditions and employee performance in the Nigerian construction industry, several avenues for future research warrant exploration. Firstly, longitudinal studies could be conducted to assess the long-term impact of changes in working conditions on employee performance over time. By tracking performance indicators and working conditions longitudinally, researchers can better understand the causal relationships between these variables.

Additionally, qualitative studies could be undertaken to explore construction professionals' subjective experiences and perceptions regarding working conditions and their impact on performance. By conducting in-depth interviews and focus groups, researchers can uncover nuanced insights that may not be captured through quantitative surveys alone. This qualitative data can complement quantitative findings and provide a more holistic understanding of the factors influencing employee performance. Furthermore, comparative studies could be conducted to examine differences in working conditions and performance outcomes across different construction industry segments. By comparing practices and outcomes between different sectors (e.g., residential construction infrastructure projects), researchers can identify best practices and lessons learned that may be applicable across the industry.

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