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ASSESSMENT OF OCCUPATIONAL HEALTH AND SAFETY (OHS) PRACTICES ON CONSTRUCTION SITES IN AMAC, ABUJA, NIGERIA

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ABSTRACT

Occupational health and safety (OHS) remains a critical concern in construction due to workers' exposure to multiple workplace hazards. This study assessed OHS practices on construction sites in the Abuja Municipal Area Council (AMAC), Abuja, Nigeria. A cross-sectional survey was conducted using structured questionnaires and key informant interviews. Of 395 questionnaires administered, 350 valid responses were obtained, representing an 88.6% response rate, alongside 10 key informant interviews. Data were analysed using descriptive statistics and thematic analysis. The findings indicate generally satisfactory OHS implementation, with an overall mean of 3.75 (SD = 1.25). Safety meetings recorded the highest mean (3.78), followed by safety signs and warnings (3.77), first-aid facilities (3.76) and worker supervision (3.76). Safety training recorded a mean of 3.72, while regulatory compliance and risk assessment both recorded 3.73. PPE provision had the lowest overall mean (3.66), with hearing protection (3.42), PPE sufficiency (3.44) and damaged-PPE replacement (3.47) indicating notable weaknesses. Emergency-response training (3.60) and hazard-identification training (3.58) were also comparatively weak. The study concludes that OHS systems are generally established, but implementation remains uneven. Strengthening continuous training, hazard-specific PPE, risk management, regulatory enforcement and management accountability is recommended.

KEYWORDS: Occupational health and safety; construction sites; safety practices; compliance; AMAC; Abuja; Nigeria.

1. INTRODUCTION

The construction industry is widely recognised as one of the sectors with substantial occupational health and safety (OHS) risks because of exposure to working at height, heavy machinery, electrical installations, hazardous materials and constantly changing work environments (Agyekum et al., 2020). Effective OHS management is therefore an important component of construction project performance, as unsafe working conditions can result in injuries, fatalities, project delays, additional costs and reduced productivity (Akinwale & Olusanya, 2021). In Nigeria, however, the implementation of OHS practices remains constrained by inadequate enforcement, limited safety awareness, weak organisational commitment and inconsistent application of established safety procedures (Jimoh et al., 2020).

The challenges are particularly relevant in rapidly developing urban areas such as the Federal Capital Territory (FCT), where increasing construction activity creates a diverse range of occupational risks. Previous studies in Nigeria have identified deficiencies in the provision and effective use of personal protective equipment (PPE), safety training, hazard identification, risk assessment, supervision and regulatory compliance (Oluwafemi et al., 2023; Mmegha, 2021). Management commitment, communication and regular safety meetings have also been identified as important factors influencing workers' safety behaviour and the effectiveness of OHS systems (Shittu et al., 2022). In addition, financial constraints, inadequate technical expertise, limited awareness and weak regulatory enforcement can hinder the consistent implementation of safety requirements (Okoye et al., 2019). These challenges suggest that the presence of formal safety policies does not necessarily translate into effective safety practices at the construction-site level.

Although existing Nigerian studies provide evidence of OHS challenges within the construction sector, there remains limited empirical evidence specifically examining the extent to which OHS practices are implemented across construction sites in the Abuja Municipal Area Council (AMAC). Much of the existing literature focuses broadly on construction safety, accident causation, workers' awareness or individual safety practices, with comparatively less attention to the combined implementation of PPE, safety training, hazard identification, risk assessment, supervision, emergency preparedness and regulatory compliance within a defined urban construction context. This creates a need for location-specific evidence that can reveal both areas of satisfactory implementation and persistent weaknesses (Okoye et al., 2019).

Accordingly, this study assesses OHS practices on construction sites in AMAC, Abuja, Nigeria. Specifically, it examines the implementation of PPE and safety training, hazard identification and risk assessment, safety communication and supervision, emergency preparedness, management commitment and regulatory compliance. The study combines questionnaire responses from construction workers and key informant evidence to provide a broader assessment of OHS implementation. By identifying areas of strength and implementation gaps, the study contributes empirical evidence that can support construction firms, regulatory authorities and other stakeholders in strengthening occupational safety management within the Abuja construction sector.

2. LITERATURE REVIEW

2.1 Occupational Health and Safety in Construction

Occupational Health and Safety (OHS) encompasses the policies, procedures and practices established to protect workers from occupational injuries, diseases and fatalities while promoting safe and healthy working environments. In construction, OHS is multidimensional and extends beyond compliance with safety rules to include hazard identification, risk assessment, safety training, personal protective equipment (PPE), supervision, safety communication, emergency preparedness and regulatory compliance (Agyekum et al., 2020; Okoye et al., 2021). This integrated approach is particularly important because construction activities involve changing work environments, heavy machinery, work at height, electrical installations and exposure to hazardous substances.

Occupational health focuses on preventing adverse health effects associated with exposures such as dust, noise, vibration, chemicals and ergonomic stressors, whereas occupational safety is more directly concerned with preventing accidents and injuries through hazard control, safe work procedures, supervision and protective measures (Mmegha, 2021; Shittu et al., 2022). Contemporary OHS management therefore increasingly emphasises proactive prevention: hazards are identified and assessed before incidents occur, appropriate controls are established, compliance is monitored and corrective actions are implemented (Oluwafemi et al., 2023).

The literature identifies several interrelated dimensions of effective construction OHS, including PPE provision and use, safety training, hazard identification and risk assessment, safety communication, supervision, management commitment, emergency preparedness and regulatory compliance (Agyekum et al., 2020; Shittu et al., 2022; Oluwafemi et al., 2023). Management commitment is particularly important because it determines the extent to which

resources are allocated to safety, policies are enforced and workers are encouraged to participate in safety activities.

The Abuja context presents additional concerns. Previous evidence indicates challenges involving inadequate hazard identification, limited PPE, weak supervision, insufficient training and inconsistent regulatory monitoring (Oluwafemi et al., 2023). Ajiboye et al. (2024) further identified human error, corruption and weak stakeholder commitment as barriers to effective HSE compliance in Abuja. Although international construction safety practice is increasingly incorporating digital monitoring, wearable technologies, drones and automated hazard detection, their adoption remains comparatively limited in the Nigerian context (Agyekum et al., 2020).

2.2 Theoretical Framework

This study is anchored on Heinrich's Domino Theory of Accident Causation and Reason's Swiss Cheese Model of Accident Causation. Their combined application provides both an individual-behavioural and organisational-systems perspective for assessing OHS practices.

Heinrich's Domino Theory conceptualises accidents as a sequence of interconnected events involving unsafe acts and hazardous conditions that can ultimately result in injury. In construction, the theory provides a basis for understanding the preventive roles of safety training, PPE, hazard identification, supervision and safety inspections. Controlling unsafe acts and hazardous conditions can therefore interrupt the sequence leading to an accident. However, the theory can place considerable emphasis on individual behaviour and may inadequately capture organisational and institutional causes of accidents.

Reason's Swiss Cheese Model complements this perspective by viewing safety as a system of multiple defensive layers. Each layer may contain weaknesses, or "holes", and accidents can occur when these weaknesses align. The model distinguishes between active failures at the operational level and latent failures arising from organisational policies, management decisions, inadequate training, poor supervision and weaknesses in safety culture. This makes it particularly relevant to construction environments where safety outcomes depend on interactions among workers, contractors, management, safety personnel and regulators.

Together, the two theories provide a more comprehensive basis for the study. The Domino Theory explains how unsafe acts and hazardous conditions can contribute to accidents, while the Swiss Cheese Model explains how organisational and institutional weaknesses can allow hazards to pass through existing safety barriers. Their integration therefore supports assessment of worker behaviour, PPE, training, supervision, management commitment, risk management and regulatory enforcement simultaneously.

2.3 Empirical Review and Research Gap

Evidence from Nigerian studies shows that construction OHS implementation remains uneven. Kaigama and Abdullahi (2025), examining high-rise construction projects in Abuja, found that inadequate training, weak legal enforcement, absence of safety representatives and limited corporate accountability constrained OHS compliance. Similarly, Okpan et al. (2025) identified behavioural resistance, inadequate safety culture, weak management commitment and institutional weaknesses as barriers to effective OHS implementation in Nigerian construction companies. Adeyemi (2025) also reported that awareness of safety requirements did not necessarily translate into consistent compliance because of poor supervision and limited safety-equipment provision.

Evidence from Abuja further supports these concerns. Ajiboye et al. (2024), in an assessment of HSE compliance across construction sites, reported moderate compliance and identified human error, corruption and weak stakeholder commitment as important barriers. The study recommended stronger regulatory enforcement and improved stakeholder commitment.

The broader Nigerian literature similarly indicates that the existence of safety requirements does not necessarily ensure effective implementation. Problems relating to training, PPE, supervision, management commitment, safety culture and regulatory enforcement recur across studies. International research likewise emphasises the importance of multiple layers of protection and organisational commitment rather than relying solely on individual worker behaviour.

Despite these contributions, there remains a specific empirical gap concerning the integrated assessment of OHS implementation across construction sites in AMAC, Abuja. Existing studies often examine particular aspects such as safety awareness, PPE, accidents, compliance or individual projects, while comparatively less attention has been given to the combined implementation of PPE, training, risk assessment, supervision, emergency preparedness, management commitment and regulatory compliance within the AMAC construction environment.

3. METHODOLOGY

3.1 Research Design and Study Area

The study adopted a quantitative cross-sectional survey design, complemented by key informant interviews, to assess occupational health and safety (OHS) practices on construction sites in the Abuja Municipal Area Council (AMAC), Abuja, Nigeria. AMAC was selected because of the concentration and continued expansion of construction activities

within the Federal Capital Territory, providing an appropriate context for examining the implementation of OHS practices across construction projects.

The study examined OHS practices relating to personal protective equipment (PPE), safety training, safety communication, emergency preparedness, regulatory compliance, hazard identification and risk assessment, supervision, contractor enforcement and management response to safety concerns.

3.2 Sampling, Data Collection and Study Participants

The study targeted stakeholders directly involved in construction activities in AMAC, including contractors, project managers, engineers, safety officers, supervisors and construction workers. 395 questionnaires were administered using purposive and stratified sampling techniques, from which 350 valid responses were obtained, representing an 88.6% response rate.

To complement the questionnaire survey, 10 key informants with substantial construction experience were interviewed. The informants included project managers, engineers, safety officers, contractors, supervisors and skilled workers, with approximately 7–17 years of relevant experience.

Data were collected using a structured questionnaire and a key informant interview guide. The questionnaire employed a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), and covered the principal OHS dimensions investigated in the study. A mean score of 3.00 was adopted as the benchmark for interpreting the responses.

3.3 Instrument Quality and Data Analysis

The questionnaire was subjected to expert review to establish content validity, while Cronbach's alpha was used to assess internal consistency, with a coefficient of 0.70 or above considered acceptable.

Quantitative responses were analysed using frequencies, percentages, means and standard deviations. These measures were used to determine the reported level of implementation of OHS practices and identify areas of relative strength and weakness. The interview data were analysed thematically, with recurring responses relating to training, PPE, supervision, risk assessment, emergency preparedness, regulatory enforcement and management commitment identified and used to contextualise the quantitative findings.

4. RESULTS AND DISCUSSION

The analysis is based on 350 valid questionnaire responses, representing an 88.6% response rate. Rather than reproducing the thesis tables individually, the findings are consolidated around the major dimensions of OHS implementation and interpreted in relation to the empirical literature.

4.1 Respondent Profile

The respondents were predominantly male (75.1%), while females accounted for 24.9%. The largest age group was 26–35 years (40.0%), followed by 36–45 years (30.0%). The composition indicates that the study captured a relatively young and active construction workforce, while also including respondents with substantial industry experience.

The profile is important for interpreting the subsequent findings because OHS implementation depends not only on organisational systems but also on the experience, competence and behaviour of workers. This is consistent with the literature, which identifies worker competence, safety awareness and behaviour as important determinants of construction-site safety (Mmegha, 2021; Oke & Aigbavboa, 2020).

4.2 Overall Pattern of OHS Implementation

The results indicate a generally satisfactory level of OHS implementation, with the assessed dimensions recording mean scores above the 3.00 benchmark. Overall OHS compliance recorded a grand mean of 3.75 (SD = 1.25). The highest overall rating concerned safety meetings (3.78), followed by safety signs and warnings (3.77), first-aid facilities (3.76), worker supervision (3.76), and the presence/function of safety officers (3.75). PPE provision recorded a comparatively lower, although still satisfactory, mean of 3.66.

Table 1: Summary of Occupational Health and Safety Practices on Construction Sites in AMAC, Abuja.

OHS dimension	Mean
Safety meetings	3.78
Safety signs and warnings	3.77
First-aid facilities	3.76
Worker supervision	3.76
Safety officers	3.75
Overall OHS compliance	3.75
Safety training	3.72
Emergency preparedness	3.72
Regulatory compliance	3.73
Risk assessment	3.73
PPE provision	3.66

Source: Field data, 2026.

The overall pattern suggests that OHS has moved beyond being absent or informal on the construction sites investigated. Basic safety structures, including training, supervision, PPE, risk assessment, safety communication and regulatory procedures, are generally present. However, the results should not be interpreted as evidence of full compliance. The variation in mean scores across individual practices indicates that implementation is stronger for routine and visible controls than for practices requiring sustained monitoring, documentation, specialised resources and organisational follow-through.

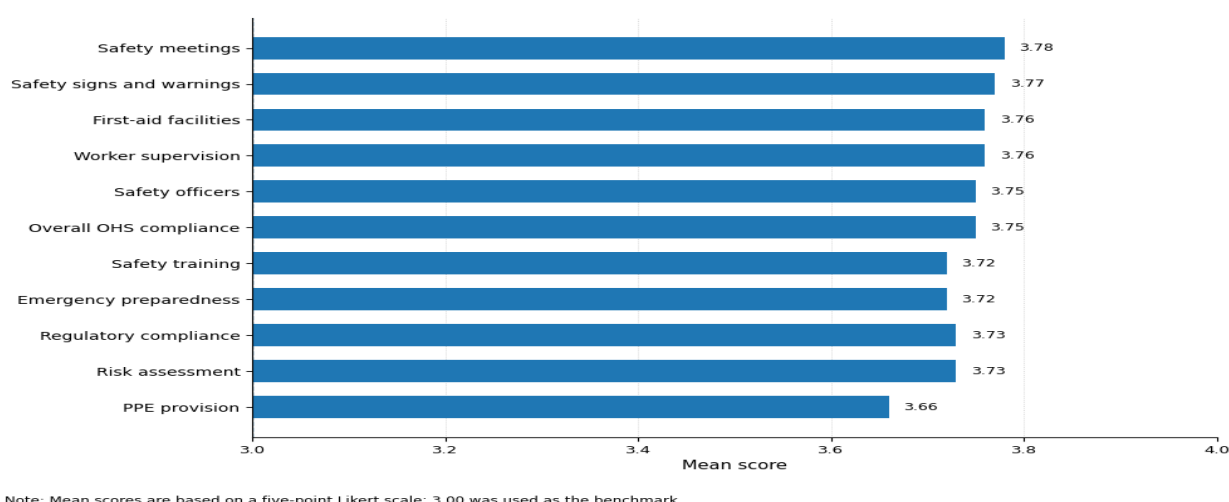


Figure 1. Mean Scores of Occupational Health and Safety Practices on Construction Sites in AMAC, Abuja.

Source: Field data, 2026.

This distinction is important in the context of previous Nigerian research. Studies of construction safety in Nigeria have repeatedly identified weak enforcement, inadequate management commitment, poor safety culture and inconsistent implementation as persistent problems (Shittu et al., 2022; Ajiboye et al., 2024; Oluwafemi et al., 2023). The present findings therefore suggest some improvement in the institutionalisation of basic OHS practices in AMAC, while also indicating that implementation consistency remains the principal challenge.

4.3 PPE and Safety Training: Strong Basic Controls, Weaker Specialised Controls

PPE provision recorded a grand mean of 3.66, indicating general agreement that protective equipment is provided. Helmets recorded the highest rating (3.95), followed by safety boots and reflective vests (both 3.85). Gloves and fall-protection equipment also recorded relatively strong ratings (3.74 each). In contrast, hearing protection (3.42), overall PPE sufficiency

(3.44), damaged-PPE replacement (3.47) and respiratory protection (3.49) received the lowest ratings.

The finding reveals an important distinction between basic PPE availability and comprehensive hazard-specific protection. Construction firms appear to prioritise highly visible and commonly required equipment such as helmets, boots and reflective clothing, while specialised controls for noise, dust and other exposure risks are less consistently implemented. The interview evidence reinforces this pattern: basic PPE was reported as commonly available, but delayed replacement and limited specialised PPE remained concerns.

This finding is consistent with the Nigerian literature, which has identified PPE provision as one of the more visible components of construction safety while noting weaknesses in broader safety management systems (Akinwale & Olusanya, 2021; Oluwafemi et al., 2023). It also supports the argument of Agyekum et al. (2020) that effective OHS requires more than conventional protective equipment; systematic hazard identification and preventive controls are necessary to address the source of occupational risks.

Safety training produced a higher grand mean of 3.72. Induction training for newly employed workers recorded a mean of 3.89, site-specific orientation 3.82, and PPE-use instruction 3.79. Continuous safety education had the highest individual score (3.96). However, training in emergency response (3.60), hazard identification (3.58) and assessment of workers' understanding before commencing work (3.49) were comparatively weaker.

The result therefore points to a training continuum problem: construction firms appear relatively effective at introducing workers to safety requirements but less consistent in verifying competence and sustaining learning through refresher, emergency and hazard-recognition training. This finding agrees with Usman and Bala (2024) and Bamisile and Ogunsemi (2022), who emphasised the importance of safety training in improving awareness and reducing construction accidents. It also supports Mmegha (2021), who identified inadequate training and safety awareness as continuing challenges within the Nigerian construction sector.

4.4 From Visible Compliance to Effective Safety Management

Several findings indicate that construction sites have established visible safety-management mechanisms. Safety signs and warnings recorded a grand mean of 3.77, with warning signs at hazardous locations recording 3.90. However, maintenance and replacement of damaged warning signs recorded only 3.63.

Similarly, risk assessment recorded a mean of 3.73, while worker supervision recorded 3.76. The findings suggest that pre-task risk assessment and direct supervision are relatively well established. The interviews nevertheless indicated that risk-assessment documentation varies between projects.

This is significant when considered against earlier evidence from Abuja. Akinwale and Olusanya (2021) described risk management in the Nigerian construction environment as frequently reactive, while Ajiboye et al. (2024) identified weaknesses in monitoring, stakeholder commitment and institutional enforcement. The present results suggest that formal risk-management practices are becoming more visible, but their effectiveness may still depend on the quality of documentation, follow-up and management action.

The same pattern is evident in regulatory compliance. Respondents generally agreed that national and international safety requirements were followed, while regulatory inspections and consistent enforcement received relatively lower ratings. The interview findings similarly indicate that safety rules and penalties exist, but enforcement is not always consistent.

Thus, the study does not support the interpretation that the existence of regulations automatically produces effective compliance. Rather, it points to a policy–implementation gap: safety requirements may be recognised and formally incorporated into construction operations, but their effectiveness depends on monitoring, enforcement, documentation and organisational commitment. This interpretation is consistent with Ajiboye et al. (2024), who identified weak monitoring and stakeholder commitment as barriers to OHS implementation in Abuja.

4.5 Management Response, Supervision and the OHS Implementation Gap

Management response to safety complaints and worker supervision were among the stronger dimensions. The quantitative findings indicate that safety complaints are generally investigated and corrective measures are taken, while workers are regularly supervised and unsafe practices corrected. However, communication of the outcome of complaints received a comparatively weaker rating. The interviews confirmed that management generally responds to reported hazards, but workers are not always informed about the outcome of their complaints.

This finding highlights an important distinction between responding to safety problems and developing a learning-oriented safety culture. Corrective action addresses the immediate problem, but feedback to workers closes the communication loop and encourages future reporting. Shittu et al. (2022) similarly emphasised the importance of communication and management commitment in strengthening safety behaviour.

The combined evidence therefore suggests that the major challenge in AMAC is not necessarily the complete absence of OHS systems. Rather, it is the consistency and depth of implementation. The interviews confirmed that basic OHS systems are generally established, but implementation varies according to project size, management commitment, resource availability, supervision and regulatory monitoring.

This finding provides an important qualification to the overall mean of 3.75. A satisfactory aggregate score can coexist with weaknesses in specialised PPE, emergency drills, documentation, regulatory follow-up and sanctions. Consequently, the findings support a view of OHS performance as a continuum of implementation rather than a simple compliant/non-compliant condition.

The evidence is broadly consistent with the Swiss Cheese Model, which conceptualises accidents as arising when multiple protective barriers fail. The presence of PPE, training, supervision, risk assessment and regulatory procedures represents multiple layers of defence. However, weaknesses in specialised PPE, emergency preparedness, documentation, monitoring and enforcement indicate potential gaps between those layers. The findings also retain relevance to Heinrich's Domino Theory because unsafe acts and conditions remain influenced by training, supervision and workplace controls.

The central empirical conclusion is therefore that construction sites in AMAC have established many of the basic components of OHS management, but the transition from basic compliance to consistently effective safety management remains incomplete. This extends previous Abuja evidence by showing that the challenge is increasingly one of implementation quality, continuity and enforcement rather than simply the absence of safety measures.

4.6 Integrated Discussion of Findings

The findings demonstrate that OHS practices on construction sites in AMAC are generally established but unevenly implemented. The overall OHS compliance mean of 3.75 indicates a satisfactory level of reported implementation; however, the lower scores recorded for specialised PPE, damaged-PPE replacement, emergency response training, hazard-identification training, documentation, regulatory follow-up and consistent enforcement reveal important weaknesses within the safety-management system.

This finding partly contrasts with earlier studies that characterised OHS implementation in Abuja and Nigeria primarily in terms of weak or reactive safety practices (Akinwale & Olusanya, 2021; Shittu et al., 2022; Oluwafemi et al., 2023). The present study suggests that construction organisations have increasingly incorporated basic OHS measures into routine operations. However, the evidence also indicates that the presence of these measures does not

necessarily guarantee consistent or effective implementation. The interviews particularly identified variation in emergency drills, specialised PPE, documentation, regulatory follow-up and sanctions.

The results also support the argument that management and supervision are central to translating formal safety requirements into actual workplace behaviour. The relatively high ratings for worker supervision, safety officers and management response suggest that direct managerial involvement contributes to compliance. This is consistent with Shittu et al. (2022), Oke et al. (2023) and Lingard and Wakefield (2023), who identified management commitment, safety leadership and supervision as important influences on construction safety behaviour.

However, the findings reveal a weaker dimension of safety management: continuous improvement. Induction and basic safety training are relatively strong, whereas refresher training, emergency-response training and assessment of workers' understanding are weaker. This suggests that some organisations may treat safety training primarily as an entry requirement rather than as a continuing competence-management process. The finding agrees with Usman and Bala (2024) and Kirana and Rianse (2023), who emphasised continuous safety education and formal OHS training as mechanisms for improving safety awareness and compliance.

A similar pattern is evident in risk management. Respondents reported relatively strong implementation of pre-task risk assessment and hazard identification, but the qualitative evidence indicates variation in documentation. This distinction is important because an assessment that is conducted but poorly documented or inadequately followed through may have limited value as a preventive control. The finding therefore supports the broader safety-management perspective advanced by Hallowell and Gambatese (2020) and Loosemore and Malouf (2021), which emphasises early and systematic identification and management of construction risks.

Regulatory compliance presents another important dimension. Although respondents generally reported compliance with national and international safety requirements, the comparatively weaker findings concerning inspection, follow-up and consistent sanctions indicate that formal regulatory recognition is stronger than regulatory enforcement. This is consistent with Ajiboye et al. (2024), who identified institutional weaknesses, corruption, inadequate monitoring and limited stakeholder commitment as constraints on effective OHS implementation in Abuja.

The findings consequently provide a more nuanced understanding of OHS performance in AMAC. The issue is not simply whether safety rules, PPE, training or risk assessments exist. Rather, the critical question is whether these measures are adequately resourced, consistently implemented, monitored, documented and improved. The qualitative findings reinforce this interpretation: basic OHS systems are generally present, but implementation varies according to project characteristics, management commitment, resources, supervision and regulatory monitoring.

From a theoretical perspective, the findings are compatible with both the Domino Theory and Swiss Cheese Model. The relatively strong presence of training, supervision, PPE and hazard identification indicates the existence of several preventive barriers against accidents. However, weaknesses in emergency preparedness, specialised PPE, documentation and enforcement suggest gaps between these protective layers. In the Swiss Cheese perspective, such gaps may become consequential when several weaknesses occur simultaneously. The findings therefore reinforce the need to view construction safety as an integrated system rather than as a collection of isolated compliance activities.

The study indicates that AMAC's construction sector is moving toward more formalised OHS management, but the transition from basic compliance to mature safety management remains incomplete. Strengthening continuous training, specialised PPE, emergency preparedness, documentation, regulatory monitoring, enforcement and worker feedback would therefore be critical to converting satisfactory reported compliance into more consistent and resilient safety performance.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study assessed occupational health and safety (OHS) practices on construction sites in AMAC, Abuja, using evidence from 350 construction stakeholders and complementary key informant interviews. The findings indicate that OHS practices are generally satisfactory, with an overall mean score of 3.75. Basic safety measures, including PPE, safety training, safety meetings, supervision, risk assessment, first-aid provision, safety officers and regulatory compliance, are generally incorporated into construction-site operations.

However, the findings demonstrate that satisfactory overall performance should not be interpreted as full or consistent compliance. Important weaknesses remain in the provision and replacement of specialised PPE, emergency-response and refresher training, emergency

drills, documentation, regulatory inspections and follow-up, consistent enforcement of sanctions, and feedback to workers following safety complaints.

The study therefore concludes that the principal OHS challenge in AMAC is increasingly a quality-of-implementation problem rather than the complete absence of safety systems. Construction firms have established several basic safety controls, but their effectiveness varies according to management commitment, resources, supervision and regulatory monitoring. Strengthening these elements would help move construction organisations from basic compliance towards a more proactive and continuous safety-management approach.

5.2 Recommendations

Based on the findings, four major recommendations are proposed:

- 1. Strengthen continuous OHS training and emergency preparedness.** Construction firms should move beyond induction training by providing regular refresher training, hazard-identification training and practical emergency-response drills.
- 2. Improve PPE and risk-management systems.** Firms should ensure adequate provision and timely replacement of hazard-specific PPE, while strengthening the documentation, communication and periodic review of risk assessments.
- 3. Strengthen regulatory monitoring and enforcement.** Relevant regulatory authorities should increase the consistency of site inspections, follow-up actions and enforcement of safety requirements, including appropriate sanctions for persistent violations.
- 4. Strengthen management accountability and worker participation.** Construction organisations should improve safety reporting and feedback mechanisms, involve workers in safety decisions, and make management accountability for OHS performance an integral part of project management.

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