

ASSESSMENT OF HEALTH AND SAFETY INFORMATION MANAGEMENT ON CONSTRUCTION SITES IN ABUJA, NIGERIA

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ABSTRACT

Rapid urbanisation and the growing construction activities in Abuja have heightened workplace risks and underscored the importance of effective health and safety (H&S) information management. This study assessed the types, accessibility, and perceived usefulness of H&S information on construction sites in Abuja, Nigeria, with a view to evaluating their role in promoting safer work environments. Data were collected through structured questionnaires administered to 120 respondents, comprising management personnel and operatives across ten active construction sites. Descriptive and inferential statistics, including frequency distributions, mean ranking, and the Chi-square Test of Independence, were employed in the analysis. Findings revealed that personal protective equipment (PPE) usage guidelines (83.5%), toolbox talks (79.6%), and risk assessment reports (74.1%) were the most accessible forms of safety information on construction sites, reflecting a strong emphasis on preventive safety practices. Conversely, hazard identification charts (46.3%), emergency plans (42.6%), and first aid procedures (39.8%) were less accessible, highlighting persistent weaknesses in hazard communication and emergency preparedness. The Chi-square analysis ($\chi^2(1) = 0.458, p = 0.499$) showed no significant difference between management and operatives in access to PPE usage guidelines, indicating equitable dissemination across job roles. The study concludes that while safety information dissemination in Abuja's construction sector demonstrates moderate inclusivity and awareness, significant gaps remain in the communication of hazard and emergency-related information. It recommends stronger regulatory enforcement of safety communication standards through periodic audits and the adoption of multiple communication channels such as visual signage, mobile alerts, and scheduled drills to improve accessibility, preparedness, and compliance across all staff categories.

KEYWORDS: Abuja, Construction Sites, Health and Safety, Information, Management.

INTRODUCTION

Rapid urbanisation and Nigeria's construction boom especially in Abuja have intensified project complexity and risk. Globally, construction remains one of the most hazardous industries, with falls, machinery accidents, and structural

failures causing a disproportionately high share of occupational injuries and fatalities (International Labour Organisation [ILO], 2019). In Nigeria, weak enforcement of safety regulations and patchy recordkeeping exacerbate

these risks (Akinwale & Olusanya, 2016; Ajayi *et al.*, 2015).

Effective health and safety (H&S) management in construction depends on robust information systems that capture and disseminate data such as induction records, toolbox talks, incident reports, and safety documentation. When these systems are effectively managed, they support early hazard identification, corrective action, and continuous organisational learning, thereby enhancing overall site safety. However, evidence suggests that in Nigeria's construction sector, these information systems are often poorly structured or entirely absent (Emuze *et al.*, 2014). This weakness in information management contributes to fragmented communication, poor documentation, and inadequate feedback mechanisms.

In the context of Abuja, studies have revealed that many construction organisations underreport incidents to protect corporate reputation, leading to unreliable safety statistics and weak institutional memory. Consequently, accident trends are poorly understood, and lessons from past incidents are rarely incorporated into preventive measures. Furthermore, Shittu *et al.* (2018) found that adherence to safety standards across firms in the Federal Capital Territory is inconsistent and largely dependent on individual organisational culture and worker attitudes rather than systematic information management.

Taken together, these findings highlight that while existing research has identified poor compliance and underreporting as challenges, there is limited empirical understanding of how the management of health and safety information itself including its collection, storage, dissemination, and use affects safety performance on Nigerian construction sites. This gap underscores the need to assess the effectiveness of health and safety information management systems in

Abuja's construction industry and their role in improving safety outcomes. Wang & Wu (2018) noted that H&S information management is a performance-orientated approach to construction by establishing a safe working environment free of accidents and ill health. Wang & Wu (2018) pointed out that one of the leading causes of fatal human accidents is inadequate provision of H&S information. To minimise the occurrences of accidents and risks on construction sites, effective knowledge and information sharing on H&S is becoming imperative (Boadu *et al.*, 2020). The study by Ezeet *et al.* (2020) concluded that there was a low implementation of H&S information management practices on construction project sites by construction organisations. This conclusion was based on the high number of major accidents observed in the study. Construction organisations are thus required to implement good H&S management practices by communicating a large amount of H&S information to site operators, visitors, and the general public so they can enjoy the full benefits inherent in a safe work environment.

In this regard, Tanko *et al.* (2020) referred to policies to guide the management of H&S information in the industry. Despite this, measures and techniques have evolved to better minimise accidents and reduce the risks of hazards, thereby ensuring effective H&S management in the industry. Adebisi *et al.* (2020) pointed out that for a successful project delivery, construction organisations should provide H&S information, instruction, and training to site operatives in a clear, concise, and correct manner so that they can carry out their responsibilities fully aware of risks involved and measures to prevent them. Against this background, this study was conducted to identify and

assess H&S information on construction sites to manage the information effectively to enhance a safe work environment.

Wang & Wu (2018) identified some H&S information, such as the company's H&S policy, accident statistics, risks associated with the current job, potential risks to the H&S of the workers, location and nature of hazards in the workplace, and emergency and first aid procedures. Ignacio *et al.* (2019) and Tanko *et al.* (2020) emphasised the importance of using, maintaining, and replacing protective equipment. Adebisi *et al.* (2020) also pointed out some H&S information, such as preventive and protective measures for the risks and hazards on site, procedures for safe operation, site rules, and best practices in the company. Other H&S information includes injury and incident reporting procedures, accident investigation, procedures for resolving H&S issues, disciplinary policy, learning from accidents, and the identities of those who have a role within the organisation's H&S management system. Despite the existence of national and organisational safety frameworks, the management of health and safety (H&S) information on construction sites in Abuja remains weak, inconsistent, and largely informal. Many construction firms lack structured systems for collecting, storing, and disseminating safety-related information such as risk assessments, hazard registers, and incident reports. This often leads to poor knowledge transfer, limited accountability, and reactive rather than preventive safety practices. The result is persistent safety lapses, underreporting of accidents, and inadequate learning from past incidents. Consequently, there is insufficient empirical understanding of how the effectiveness of H&S information management influences safety performance on construction sites in Abuja. This study is significant because it provides empirical evidence

on the state of H&S information management practices within Abuja's construction sector. It advances knowledge by linking information management processes such as collection, storage, dissemination, and utilization with overall safety performance outcomes. The aim of this study is to assess the effectiveness of health and safety information management on construction sites in Abuja.

LITERATURE REVIEW

Health and Safety Management Practices

H&S management practices are the policies, procedures, and strategies implemented by the organisation targeted to the H&S of the workers (Smallwood, 2013). The implementation of H&S policies therefore influences the practices of workers. Furthermore, Yap and Lee (2019) opine that management commitment contributes to best practices and productive workers. According to Witcher and Yario (2014), H&S management practices influence workers' knowledge, skills, motivation, decision-making, attitudes, and perceptions.

Construction workers need a healthy and safe environment to work in. Studies have shown the link between H&S management practices and work site H&S performance (Cheng *et al.*, 2012; Yap *et al.*, 2019; Adebowale *et al.*, 2020). Several studies conducted in different parts of the world with respect to H&S management practices suggest different interpretations. Mahila *et al.* (2021) categorised H&S management practices into three groups, namely incentive factors, process factors, and personal factors. Cheng *et al.* (2012) view H&S practices as H&S management information, process, and committees. Ismail *et al.* (2012) reviewed studies conducted in different countries such as Australia, China, Finland, Jordan,

Malaysia, and the USA and determined that H&S management practices were tailored and categorised to meet the industry's needs in each country. Various researchers interpreted H&S management practices in different ways. Yario and Watcher (2015) suggest that measuring techniques, culture, work ethics, and the environment, could be factors responsible for the lack of consistency in H&S management systems.

Based on the information provided by the above studies, several strategies have been proposed as measures for improving H&S performance in the construction industry. For example, Tam *et al.* (2004) argue for the entrenchment of a legal framework that will enforce the 'best' H&S practices at construction sites. However, a critical look at the factors responsible for poor H&S performance shows that the identified factors can be classified into two main groups, namely internal and external.

The external factors are beyond the control of the major stakeholders in the construction sector. In contrast, the internal factors can be addressed by project participants. For example, it has been reported that inadequate provision of PPE is one of the principal causes of occupational accidents in the Chinese construction sector (Chen *et al.*, 2020). This can be addressed by the construction managers overseeing construction projects.

Furthermore, other studies have shown that workers' H&S practices have a significant influence on H&S performance (Agumba & Haupt, 2014). Similarly, Awwad *et al.* (2016) report that top management commitment, H&S regulation and enforcement, training competence, and workers' awareness of H&S are responsible for H&S performance gaps observed on projects. This suggests that stakeholders' influence with respect to H&S practices of workers is a key factor in achieving

improved H&S. This is because, if the H&S practices of workers are not addressed, workers may not appreciate the need to obey H&S rules. Construction involves numerous ongoing activities and practices as work progresses on site.

Management commitment involves the following: documentation and keeping records of accidents and near misses; detailed documentation of site activities; regulation and employment standards and communication and implementing training programmes on sites (Ismail *et al.*, 2012). Management's inability to employ the right people for the right job and lack of respect for people may pose H&S problems, resulting in underreporting and underdocumentation. The relationships that exist pose a threat to H&S when not managed effectively. For example, when H&S procedures or on-the-job training are not communicated effectively to workers on construction sites, workers may engage in unhealthy and unsafe acts such as being violent and abusive, which may lead to undocumented fatal accidents. Adequate documentation and record keeping will provide adequate statistics for policy makers and stakeholders to deliberate, to improve H&S in the construction industry to realise sustainable infrastructure development.

According to Adebawale *et al.*, (2020), management failure and inadequate enforcement of H&S rules and regulations by the government can affect workers' behaviour and attitude towards H&S practices on construction sites. Keeping workers abreast of legal obligations and changes in H&S standards will reduce or eliminate workers' unhealthy and unsafe behaviours. Hence, effective management commitment and adequate enforcement of H&S regulations reduce ill health and injury and enhance the H&S climate. This situation may in turn influence attitudes and behaviours

related to H&S issues on construction sites (Liu *et al.*, 2015).

Management of Health and Safety Information

The effective management of health and safety (H&S) information is essential for the successful delivery of construction projects. Scholars have established a strong positive correlation between effective H&S information management and overall project success (Fang *et al.*, 2020; Chen *et al.*, 2020; Nassereddine *et al.*, 2022). When information flows efficiently, site operatives perform better and productivity levels improve key indicators of project success.

Conversely, Gerami and Fayek (2019) linked poor productivity and declining worker performance to work-related accidents and ill health, which often stem from inadequate safety communication and information dissemination.

H&S information management extends beyond documentation; it facilitates the transfer of vital knowledge about hazards, risk controls, personal protective equipment (PPE), first-aid procedures, and emergency response (Suparna & Jaiswal, 2021). This process fosters coordination between people, systems, and work processes, thereby creating a safety-conscious organisational culture. Okoye (2018) similarly argued that sound H&S management not only reduces risks but also shapes workers' attitudes and behaviours toward safer practices. Collectively, these studies highlight that well-structured information systems are foundational to both the physical safety and psychological readiness of workers. However, despite widespread acknowledgment of the importance of information management, poor communication and weak documentation continue to hinder safety performance on construction sites (Duryan *et al.*, 2020). In Nigeria, this

problem is exacerbated by limited training, insufficient dissemination of H&S materials, and a lack of feedback mechanisms between safety personnel and operatives (Adeagbo *et al.*, 2019). The absence of structured channels for transmitting, storing, and retrieving safety data results in misinformation, underreporting of incidents, and slow responses to hazards, which in turn compromise project delivery and safety outcomes (Adebiyi *et al.*, 2020).

The complexity of construction projects further underscores the importance of collaboration among multiple stakeholders. Osei-Asibey *et al.* (2021) identified clients, consultants, contractors, subcontractors, suppliers, regulatory institutions, and even insurers as key actors in H&S management. Chan and Oppong (2018) emphasized that safety is a collective responsibility, requiring shared commitment from all parties. Clients, in particular, influence safety performance through procurement policies that favour contractors with proven safety records (Umeokafor, 2017), while government agencies enhance safety by enforcing compliance standards (Osei-Asibey *et al.*, 2021). Nevertheless, Chen *et al.* (2020) and Tanko *et al.* (2020) found that in many developing countries, including Nigeria, contractors bear the bulk of safety responsibilities without adequate institutional support or effective information management frameworks to guide compliance.

Taken together, these findings reveal a critical gap in understanding how health and safety information its generation, flow, storage, retrieval, and feedback affect the overall safety performance of construction projects in Nigeria. While numerous studies have examined general H&S practices and compliance challenges, few have empirically assessed the management of H&S information systems as a determinant of construction site safety. This gap

highlights the need to evaluate how health and safety information is managed on construction sites in Abuja, Nigeria, and its implications for improving safety performance and project success.

METHODOLOGY

This study adopted a quantitative research design to objectively assess health and safety (H&S) information management practices on construction sites in Abuja, Nigeria. The quantitative approach enabled the collection of measurable data on the types, dissemination methods, storage, accessibility, and utilisation of H&S information, as well as the identification of patterns and correlations between information management and site safety outcomes. This design was chosen because it allowed for statistical analysis to provide empirical evidence on the state of H&S information management in the study area.

The research was conducted in the Federal Capital Territory (FCT), Abuja, which has witnessed rapid construction growth and hosts a wide range of medium- and large-scale projects. The study population comprised key construction industry stakeholders, including project managers, site supervisors, safety officers, contractors, and both skilled and unskilled site operatives working on active construction sites. These groups were targeted because they are directly involved in the creation, dissemination, and utilisation of health and safety (H&S) information during project execution.

A purposive sampling technique was adopted to select ten (10) active construction sites across various districts of Abuja such as Garki, Wuse, Maitama, Gwarinpa, Utako, and Lokogoma to ensure diversity in project characteristics, ownership, and scale. The selection criterion was based on project activity level, accessibility, and the presence of structured H&S

management systems. This approach allowed the inclusion of both public and private sector projects, as well as different construction types such as residential, commercial, and institutional buildings.

Although purposive sampling may limit the generalizability of findings, it was deemed appropriate for this study because it enables the selection of information-rich cases that provide deeper insights into how H&S information is managed in real operational settings. The selected sites thus offer a realistic representation of Abuja's dynamic construction environment and are suitable for exploring the variations in safety information practices among different organisations and project scales. From these sites, a total sample size of 120 respondents was drawn.

Data were collected using a structured questionnaire comprising closed-ended and Likert-scale items. The Likert scale ranged from 1 to 5, where 1 represented "Strongly Disagree" and 5 represented "Strongly Agree." The scale was used to measure respondents' perceptions, experiences, and practices regarding health and safety (H&S) information management on construction sites. The use of the five-point scale allowed for quantitative analysis of attitudinal responses and facilitated the computation of mean scores and relative importance indices (RII) for ranking key factors. The questionnaire was divided into sections addressing, demographic information types of H&S information used, dissemination and storage methods, accessibility of information, and challenges encountered in information management. Questionnaires were self-administered, with the researcher present to clarify any ambiguities and ensure a high response rate.

The collected data were analysed using the Statistical Package for the Social

Sciences (SPSS) version 26. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarise the responses, while inferential statistics, including the Chi-square test and Pearson's correlation coefficient, were applied to test relationships between variables and determine the strength and significance of correlations.

To ensure validity, the questionnaire was reviewed by experts in construction safety and information management to confirm that it adequately captured the research objectives. Reliability was tested through a pilot study involving a small group of respondents from a construction site not included in the main study. The internal consistency of the questionnaire was assessed using Cronbach's alpha, which produced a value of 0.83, exceeding the acceptable threshold of 0.70 (Tavakol & Dennick, 2011). This result indicates that the

questionnaire items were consistent and reliable for data collection in the main study. Ethical considerations were strictly observed, with participants providing informed consent and their responses kept confidential. Participation was voluntary, and respondents retained the right to withdraw at any stage without any consequence.

RESULTS AND DISCUSSION

Table 1 shows that the majority of respondents were male (79.8%), reflecting the male-dominated nature of Nigeria's construction workforce. Most participants (37.6%) were aged between 31 and 40 years, and nearly half (47.7%) held a bachelor's degree. Site operatives and site engineers formed the largest respondent groups, while a considerable proportion (33.9%) had between 5 and 10 years of industry experience.

Table 1: Demographic characteristics of respondents

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	87	79.8
	Female	22	20.2
Age Group (years)	18–30	25	22.9
	31–40	41	37.6
	41–50	29	26.6
	51 and above	14	12.9
Educational Qualification	OND/HND	28	25.7
	B.Sc./B.Tech	52	47.7
	M.Sc./M.Tech	21	19.3
	Others (e.g., Vocational)	8	7.3
Job Role	Site Engineer	30	27.5
	Project Manager	18	16.5
	Safety Officer	25	22.9
	Site Operative/Artisan	36	33.0
Years of Experience	Less than 5 years	19	17.4
	5–10 years	37	33.9
	11–15 years	31	28.4
	Above 15 years	22	20.2
Total		109	100.0

Types of health & safety information used

The results in Table 2 indicate that PPE usage guidelines are the most widely used form of health and safety (H&S) information on construction sites in

Abuja, with 83.5% of respondents confirming their availability. This finding aligns with Tanko *et al.* (2020), who observed that the Nigerian construction industry has increasingly prioritised PPE awareness as part of

compliance with occupational safety regulations. The high prevalence of PPE guidelines demonstrates strong industry commitment to preventing physical injuries; however, the 16.5% of

respondents who reported the absence of such guidelines suggest that enforcement gaps still exist, particularly on smaller or informal projects

Table 2: Types of health & safety information used

Type of Information	Yes (n)	No (n)	Yes (%)	No (%)
PPE Usage Guidelines	91	18	83.5	16.5
Toolbox Talks	81	28	74.3	25.7
Risk Assessment Reports	77	32	70.6	29.4
Emergency Plans	75	34	68.8	31.2
First Aid Procedures	73	36	67.0	33.0
Safety Policy Documents	72	37	66.1	33.9
Hazard Identification Charts	60	49	55.0	45.0

Toolbox talks, reported by 74.3% of respondents, emerged as another highly utilised safety communication tool. This is consistent with Suparna and Jaiswal (2021), who emphasised that regular safety briefings enhance hazard awareness and encourage safe work behaviours. The remaining 25.7% of sites without toolbox talks potentially miss opportunities for reinforcing real-time hazard management practices, which was identified as critical to reducing accident rates.

The use of risk assessment reports was confirmed by 70.6% of respondents, reflecting a moderately high adoption rate. This aligns with Chen *et al.* (2020), who identified risk assessments as a cornerstone of hazard prevention on construction sites. However, the 29.4% reporting no such reports highlights a gap that could expose workers to unmitigated hazards, echoing Adeagbo *et al.* (2019), who linked poor hazard identification to increased accident frequency.

Similarly, emergency plans (68.8%) and first aid procedures (67.0%) were found to be present on a majority of sites but still absent in a substantial minority. The absence of such provisions on approximately one-third of sites raises serious concerns, as Okoye (2018) and Osei-Asibey *et al.* (2021) stress the

necessity of preparedness for unexpected incidents to minimise injury severity and fatalities.

Safety policy documents were present on 66.1% of sites, reflecting the moderate dissemination of formal safety guidelines. This finding corroborates Umeokafor (2017), who argued that clients and contractors play a crucial role in establishing clear safety policies as part of contractual and operational requirements. The absence of policies in 33.9% of cases may be indicative of weak institutional safety cultures, particularly in smaller-scale projects.

Lastly, hazard identification charts were the least utilised, with only 55.0% of respondents confirming their presence. Visual aids like these are proven to be effective in hazard communication (Gerami & Fayek, 2019), yet their limited use suggests reliance on verbal briefings or a lack of resources for producing and displaying them. This gap is concerning, given that Duryan *et al.* (2020) demonstrated the role of visual tools in improving workers' comprehension of workplace hazards.

Overall, while the findings reveal a generally positive trend in the use of H&S information on construction sites in Abuja, notable deficiencies remain in formal documentation, visual communication, and emergency

preparedness. Addressing these gaps through stricter regulatory enforcement and targeted training could significantly improve safety outcomes, aligning with the recommendations of Osei-Asibey *et al.* (2021).

Respondents' Roles

Table 3 shows the distribution of respondents according to their organizational roles. Out of the total 109 respondents, 41 (37.6%) were in management positions, while 68 (62.4%) were operatives. This indicates that the majority of respondents occupy operative-level positions in the organization.

Table 3: Distribution of respondents by role

Role	Frequency	Percentage (%)
Management	41	37.6
Operative	68	62.4
Total	109	100.0

Access to PPE Usage Guidelines

As presented in Table 4, most respondents (91 out of 109; 83.5%) indicated that they had access to PPE usage guidelines, while 18 respondents

(16.5%) reported having no access. This suggests that PPE information is generally available to the majority of the workforce, although a small portion still lacks access.

Table 4: Access to PPE usage guidelines

Access to PPE Info	Frequency	Percentage (%)
No	18	16.5
Yes	91	83.5
Total	109	100.0

Relationship between respondents' role and access to PPE usage guidelines

To determine whether access to PPE usage guidelines differed significantly between management and operative staff, a Chi-square Test of Independence was conducted. The results (Table 5) show that 87.8% of respondents in management roles (36 out of 41) and 80.9% of operatives (55 out of 68)

reported having access to PPE information. The Chi-square test result, $\chi^2(1) = 0.458$, $p = 0.499$, indicates that there is no statistically significant relationship between respondents' role and access to PPE usage guidelines at the 5% significance level ($p > 0.05$). This implies that both management and operative staff have similar levels of access to PPE information.

Table 5: Cross-tabulation of role and access to PPE information

Role	No PPE Info (0)	PPE Info (1)	Total
Management	5	36	41
Operative	13	55	68
Total	18	91	109

Chi-square Test Results:

$\chi^2(1) = 0.458$, $p = 0.499$ ($p > 0.05$)

This suggests that PPE information is relatively equally distributed across hierarchical levels on construction sites

in Abuja. This aligns with Tanko *et al.* (2020), who emphasised that safety communication should be inclusive, ensuring both managers and front-line workers receive the same critical safety

guidelines. Equal access to PPE information also reflects the principles of shared safety responsibility outlined by Chan and Oppong (2018), where all stakeholders regardless of role are considered integral to safety compliance. However, the slightly lower percentage among operatives could indicate marginal disparities in information dissemination, which Adeagbo *et al.* (2019) warned may arise when safety communication channels are informal or inconsistent. Since operatives are more exposed to physical hazards, even small lapses in information delivery can have greater implications for injury prevention.

The lack of a statistically significant association also reinforces the argument made by Suparna and Jaiswal (2021) that the key challenge in occupational safety is often not access to information but the

consistent application and enforcement of that information on-site. In other words, even when PPE guidelines are accessible, the critical issue becomes whether they are properly implemented and adhered to.

Usefulness of H&S Information Provided on Site

The results in Table 6 reveal that PPE usage guidelines were rated as the most useful health and safety (H&S) information on construction sites in Abuja, with a mean score of 4.55, ranking first among the seven categories assessed. This underscores the critical role of PPE in accident prevention, as highlighted by Tanko *et al.* (2020), who argued that PPE guidelines serve as a frontline defence against occupational hazards in construction environments.

Table 6. Usefulness of H&S information provided on site

Type of Information	Mean Score	Rank
PPE usage guidelines	4.55	1
Risk assessment reports	4.02	2
Safety policy documents	4.01	3
Toolbox talks	3.99	4
Emergency/evacuation plans	3.50	5
Hazard identification charts	3.48	6
First aid procedures	3.37	7
Average Mean score	3.84	

Risk assessment reports (Mean = 4.02) and safety policy documents (Mean = 4.01) ranked second and third, respectively, suggesting that workers value structured, formal safety documentation that guides hazard prevention and compliance. This finding supports Chen *et al.* (2020), who observed that risk assessments provide proactive hazard identification, while safety policies establish a framework for consistent enforcement.

Toolbox talks were also rated highly (Mean = 3.99), aligning with Eze *et al.* (2020), who noted that short, focused safety briefings are effective in reinforcing hazard awareness and safe

practices on site. However, the ranking slightly below formal documentation suggests that while these talks are valuable, they may not be as influential without complementary written materials.

Lower rankings were observed for emergency/evacuation plans (Mean = 3.50), hazard identification charts (Mean = 3.48), and first aid procedures (Mean = 3.37). This may reflect a lower perceived relevance in day-to-day operations, despite their critical importance during emergencies. Suparna and Jaiswal (2021) warned that neglecting these areas could lead to gaps in preparedness, especially in high-risk situations.

The average mean score of 3.84 indicates a generally positive perception of the usefulness of H&S information on Abuja construction sites. This aligns with Okoye (2018), who highlighted that effective H&S information dissemination directly contributes to safer work environments and reduced accident rates.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study examined the types and perceived usefulness of health and safety (H&S) information used on construction sites in Abuja, Nigeria, with emphasis on their accessibility and value to both management and operatives. The findings revealed that PPE usage guidelines, toolbox talks, and risk assessment reports were the most commonly accessible forms of safety information, indicating that preventive safety measures are relatively well embedded in site operations. However, the inconsistent availability of hazard identification charts, emergency plans, and first aid procedures highlights persistent weaknesses in hazard communication and emergency preparedness.

The Chi-square analysis showed no significant difference between management and operatives in access to PPE usage guidelines, suggesting equitable dissemination of this information across job roles. While this reflects some progress toward inclusive safety communication, it also underscores the need to extend such equity to other safety information categories that remain underutilised.

From a theoretical standpoint, this study deepens the understanding of H&S information management within the construction industry of developing countries. It provides empirical evidence on how different types of safety information are accessed, perceived, and

applied at the operational level. The findings reinforce the notion that effective H&S management goes beyond regulatory compliance it depends on how well safety information is communicated, internalised, and acted upon by all categories of site personnel. This contextual insight enriches the body of knowledge on safety information management within Nigeria's evolving construction environment, where formal systems often coexist with informal communication practices.

Recommendations

1. Regulatory agencies such as the Federal Ministry of Labour and Employment and the Nigerian Institute of Safety Professionals should establish explicit standards requiring construction firms to provide accessible and regularly updated safety information, including visual hazard charts, emergency plans, and first aid procedures.
2. Strengthen regulatory enforcement through periodic safety audits and compliance checks to ensure consistent dissemination of safety information across different project sites.
3. Construction site management should ensure that all categories of workers both management and operatives receive safety information through multiple communication channels, such as toolbox talks, digital notifications, safety posters, and multilingual signage.

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