

EMPIRICAL EVIDENCE FROM NIGERIA ON ENVIRONMENTAL HEALTH AND OCCUPATIONAL SAFETY AT WORK

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The International Labour Organization (ILO) has developed numerous conventions, protocols, and recommendations on minimum labour standards, with the majority relating to occupational safety and health systems (OSH). However, environmental issues like deforestation, desertification, flooding, erosion, oil spills, and air and water pollution, particularly in Nigeria, pose a threat to the health and safety of the many organizations in developing nations. Using a hybrid of research designs such as survey and content analysis and based on the Risk Society Theory and Sense-making Theory, this paper reviews, environmental health and occupational safety at workplaces in Nigeria. This study aims to identify environmental health and occupational safety issues in Nigeria's manufacturing sector, specifically in the iron and steel and aluminium industry, by examining inaccurate data on male and female workers. Using in-depth interviews with a total of 17 participants, the primary data was gathered from managers and senior staff members of chosen firms in Ajaokuta, Kogi State, and Lagos State, Nigeria. These were Ajaokuta Steel Company Limited (ASCL) and Alumaco Aluminium Manufacturing Co. of Nigeria Ltd., Ikeja, Nigeria. It discovers a high level of occupational health awareness, insufficient funding for safety intelligence initiatives, and a high frequency of workplace dangers. The study also finds that Nigeria was among the signatories in Africa who failed to comply with this directive. It recommends promoting occupational health services, training doctors to recognize work-related diseases, and complying with the ILO's Convention 155. The article also suggests updating laws, conducting education campaigns, investing in training, and holding employers accountable for non-compliance.

Keywords: employers' responsibility; African countries; workplace risk; worker awareness.

INTRODUCTION

These days, it is believed that workplace health and safety risks are what motivate researchers to develop ways to shield factory workers from their detrimental effects. Workplace health issues have been more prevalent in recent years due to rising expectations for quality, health, knowledge, and safety. The whole living and non-living surroundings that any creature needs for survival and sustainability are considered to be its environment (Orisakwe, 2019). The status of the environment at any given time has a significant impact on the biotic and abiotic components of the environment, which are essential to human health and survival. If the ecosystem is ill, everything in it is vulnerable (Orisakwe, 2019). Environmental health, according to Knowlton (2011), is the interaction between people and their environment that decides whether or not human health and a clean, healthy environment are preserved. Environmentally related activities occur in complex and dynamic interactions at the individual, society, national, and international levels. There are two ways in which environmental health and human well-being are interdependent: environmental factors that impact human health and human activities that impact environmental quality.

According to research conducted by the World Health Organization (WHO), environmental factors account for up to 4 million deaths of children under five years old and 23% of all fatalities globally. 13 million deaths a year and 13% to 37% of the world's illness burden can be avoided with a healthy environment. Nigeria's vast industrial sector, oil refineries, manufacturers, fast urbanization, and population growth have all had a substantial impact on the country's environment. In industrialized cities, problems including wind erosion, flooding, deforestation, desertification, air and water pollution, solid waste management, and urban poverty get exacerbated.

Laws that shield employees from dangerous workplaces are rarely enforced, which makes carelessness punishable. According to Bakker (2007), the main issue here is the government's inaction against companies that disregard health and safety regulations, even when their carelessness results in an employee's death. It's been noted that certain foreign workers in Nigeria are accountable for operating dangerous workplaces that have resulted in fatalities and limb loss. Even worse, they barely receive enough money to make up for these losses or injuries. The Nigerian Ministry of Productivity and Labour is not going far enough in policing certain unhealthy behaviours. Natural disasters and health issues are a result of the substantial changes in the environment brought about by climate change and the greenhouse effect.

In answering the question, what kind of job is done in your nation? In Nigeria, 38% of the working male population works in agriculture (compared to 20% of working females), and 56% of working females work in sales and service industries (compared to 19% of working males). Approximately 21% of men and 9% of women work in skilled manual trades, and 16% of men and 8% of women work in professional and technical jobs (Omokhodion, 2009). In 2021, the manufacturing industry employed roughly 12.66% of the labour force in Nigeria. This industry is essential to the nation's economic success, since it creates jobs and fosters industrial expansion. The government employs less than 15% of the overall workforce in the civil service. Approximately thirty percent of the women who responded to a survey in Nigeria in 2022 said they were employed in the agricultural sector. Nigerian women also frequently worked as traders, artisans, housewives, students, and skilled manual labourers (such as those in the trades of electricians, mechanics, and machinists) or skilled manufacturing workers. These numbers give a summary of employment trends in Nigeria, even though it is not explicitly known what proportion of males work in the manufacturing sector. Figure 1 graphically explains the main working status of women in Nigeria as of 2022.

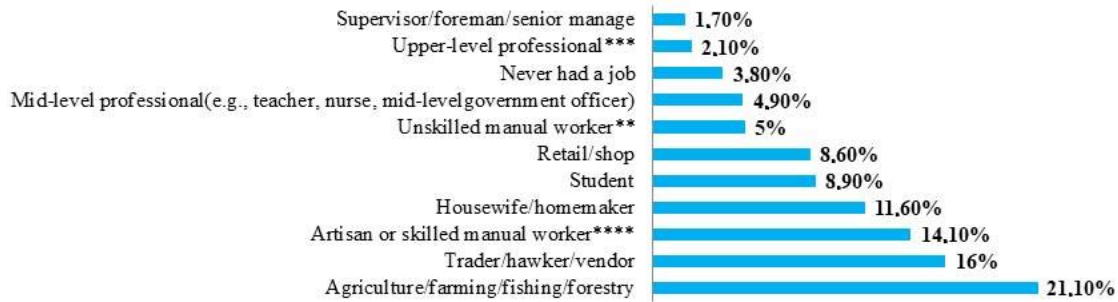


Figure 1. Main working status of women in Nigeria as of 2022 (source: Researcher's computation based on data from Statista (2022))

Figure 1 illustrates that the majority of Nigerian women workers are employed in agriculture, fisheries, and forestry (21.1%), with traders, hawkers, and vendors making up the next largest group (16%). Senior managers, foremen, and supervisors employed the fewest women (1.7%).

Furthermore, Nigeria's fast population growth has made environmental problems worse (Amegah & Agyei-Mensah, 2017). Due to the dearth of development in rural areas, there is a significant population migration to metropolitan areas, exacerbating environmental problems (Babanyara et al., 2010).

In Nigeria, ensuring safe working conditions is a critical concern across various industries, including manufacturing. Challenges include inadequate infrastructure, hazardous materials handling, machinery safety, ergonomics, electrical safety, fire safety, health and hygiene, training and awareness, enforcement and compliance, and worker empowerment. Solutions include investing in infrastructure upgrades, regular maintenance, and adherence to safety standards. Proper training, use of personal protective equipment (PPE), and strict adherence to handling protocols are essential. Regular inspections, training, and clear operating procedures are also crucial. Encouraging workers to have a voice in safety matters and involving them in safety committees can also help improve safety. In conclusion, Nigeria's manufacturing industry needs to put safety first by making investments in infrastructure, compliance, and training. By tackling these issues, we can make workplaces safer for every worker.

Given the above background, there are gaps, such as a dearth of more accurate data regarding the number of male and female workers in the Nigerian manufacturing sector, which requires that additional study or government records be required. In addition, there is a lack of studies on environmental health and occupational safety at workplaces in iron, steel, and aluminium industries in Ajaokuta and Lagos in Nigeria. Therefore, this study's main purpose is to identify environmental health-related issues by talking about occupational safety and environmental health at Nigerian workplaces in steel and aluminium industries in Ajaokuta and Lagos.

LITERATURE REVIEW

Concept of Occupational health and safety (OHS)

Certain vocations are riskier than others, and certain workers may be exposed to chemicals, heavy metals, poor air quality, or extremely high or low temperatures, among other environmental risks. The speciality of occupational health seeks to maintain employees' well-being and safety at work. The impact of work on one's social, emotional, and physical health can vary greatly. Numerous environmental exposures over time, as well as interactions between those exposures and genes, can cause chronic illnesses such as cancer and heart disease.

In Nigeria, occupational health and safety, or OHS, is a vital idea that tries to shield employees from diseases, accidents, or fatalities brought on by circumstances connected to their jobs. Based on ILO Convention No. 155, the nation's National Policy on Occupational Safety and Health offers a framework for OSH management and regulation. The Nigerian Nuclear Safety and Radiation Act, the Employees' Compensation Act, the Nigerian Minerals and Mining Act, and the Factories Act are some of the country's major laws. An atmosphere that is safe, healthy, and fosters a safety culture are critical, as the International Labour Organization notes that 2.3 million workers lose their lives in work-related incidents each year (ILO, 2016).

Why is the importance of occupational health and safety?

Experts in occupational health and safety are essential in preventing illnesses and injuries in a variety of work environments. Organizations can lower workplace incidents, lower absenteeism and staff turnover, boost productivity, lower insurance premiums, establish a proper health and safety culture, strengthen leadership commitment to proactively improve performance, improve reputation, and boost employee morale by putting occupational health and safety standards into practice. In order to minimize unpleasant shocks, increase productivity, and identify any safety risks before they result in accidents, ISO 45001 offers a framework. Organizations can decrease personnel turnover and absenteeism, boost productivity, and lower insurance costs by addressing hazards. Employee participation in their own management system is encouraged by a strong health and safety culture, which also strengthens the leadership's resolve to enhance performance. Moreover, implementing ISO 45001 can improve employee morale, which is critical for retention and attrition rates.

Occupational Health and Safety issues in Nigeria

Nigeria's national policy on occupational safety and health, established in 2006, aims to improve workplace safety and health performance across all sectors. However, many employers prioritize profit over workplace safety, leading to ineffective government institutions and corruption. The OHS Department is established to ensure workers' safety, but its functions are theoretical and lack proper implementation. Nigeria's workplace safety and health is covered in a country profile by the International Labour Organization (ILO). Organizations must draft policies based on unique workplace risks, meet legal standards, and benefit from a thorough project plan. Occupational health and safety professionals are increasingly sought for their ability to improve people's lives. Safety representatives enforce Occupational Health and Safety Act (OHSA) laws and conduct regular assessments, identifying hazardous conditions, providing training, and ensuring machinery operators follow safety rules. Employees may be exposed to various types of hazards, including physical, biological, chemical, ergonomic, and psychological. To promote occupational health and safety, compliance with laws, proper training, and proper posture are essential.

Theoretical Framework

The Risk Society Theory by Beck (1992) and the Sense-making Theory by Weick (1995) are the two theories used to analyse the problem of industrial safety and accident prevention. In contemporary organizations, the sense-making theory offers a justification for decision-making regarding industrial safety and accident prevention, while the risk society theory highlights the factors that drive health and safety risks in the workplace. Sense-making suggests a greater degree of involvement from the actor since individuals and institutions are continuously attempting to comprehend the course of events surrounding them (O'Connell, 1998; Shiflett, 2000). "Risk society" is how Beck (1992) described contemporary society. His definition of danger encompasses all facets of social life, "from the insecurities of the job market to the complexities of family life, to the validation of scientific activity, and to the hazards of the environment" (Moraru, 2001; Allen & Henry, 1997). The multiplicity of dangers and crises related to technology and the environment that results from corporate industrial activity is a fundamental aspect of post-industrial modernization (Shrivastava, 1995). According to Beck, risk society has resulted in unforeseen outcomes such as the emergence of new communities of the endangered and conflicts of interest (Draper, 1993).

Empirical Framework

Research has demonstrated that compared to other workers, health care providers have a higher risk of occupational injuries and blood-borne infections (Ogoina et al., 2014). Additionally, due to the availability of a range of health dangers, such as physical, chemical, biological, and psychological hazards, certain worker groups are more susceptible to occupational hazards in many firms, even if the Marchand et al. (1998) state that wearing personal protective equipment, performing tasks in a safe manner, using the appropriate tools and equipment, keeping a clean workstation, working in a secure environment, and adhering to specific safety procedures are the safety regulations that are most frequently observed in almost all organizations. However, it is still being determined in Nigeria to what extent businesses abide by safety regulations.

Idubor & Oisamoje (2013) conducted an empirical analysis of OHS protocols in Nigeria and concluded that all companies have an obligation of care to ensure the safety of their workers at all times. In order to bolster their argument for the need to strengthen health and safety management (HSM), Idubor & Oisamoje (2013) cited a number of issues, including the aviation industry's high rate of plane crashes, the petroleum

industry's frequent reports of oil spills, pipeline vandalism, and petroleum tanker accidents, as well as the solid mineral industry's numerous cases of poisoning deaths.

Marchand et al. (1998) state that wearing personal protective equipment, carrying out tasks in accordance with safe work practices, using the proper tools and equipment, keeping the workstation clean, operating in a safe environment, and adhering to particular safety procedures are the most frequently found safety rules in almost all organizations. In Nigeria, it is unclear how much organization adherence to safety regulations there is, nevertheless.

"Organizations should be able to minimize burnout among their employees by increasing their adaptive capacities through appropriate training and development workshops," according to Idubor & Oisamoje (2013). According to Idubor & Oisamoje (2013) empirical study on occupational health and safety practices in Nigeria, all organizations have a responsibility to make sure that workers are safe at all times. Idubor & Oisamoje (2013) used the following problems to support their argument for the necessity of strengthening health and safety management (HSM): Frequent reports of emergencies in the oil sector related to oil spills, pipeline vandalism or oil tanker accidents; periodic news about emergencies in the aviation industry; about frequent traffic accidents; about numerous fatal poisonings during mining of solid minerals.

This study aims to identify environmental health and occupational safety issues in Nigeria's manufacturing sector, specifically in the iron and steel industry, by examining accurate data on male and female workers.

Departments of occupational safety and health some MDAs in Nigeria

Federal Ministry of Labour and Employment

The OSH Department, established in 1955, is a professional department in the Federal Ministry of Labour and Employment responsible for promoting worker safety, health, and wellbeing. It regulates work practices, conditions, materials, and the environment, implementing safety provisions from the Factories Act 2004 and its subsidiary legislations (ILO, 2016) and has a distinct professional structure (Figure 2).

The OSH Department, led by the Director of Factories of the Federation, is based in Abuja and comprises various units including Field Services, Policies and Regulations, Occupational Health and Industrial Hygiene and Laboratory Services, and National Programs, all headed by Deputy Directors.

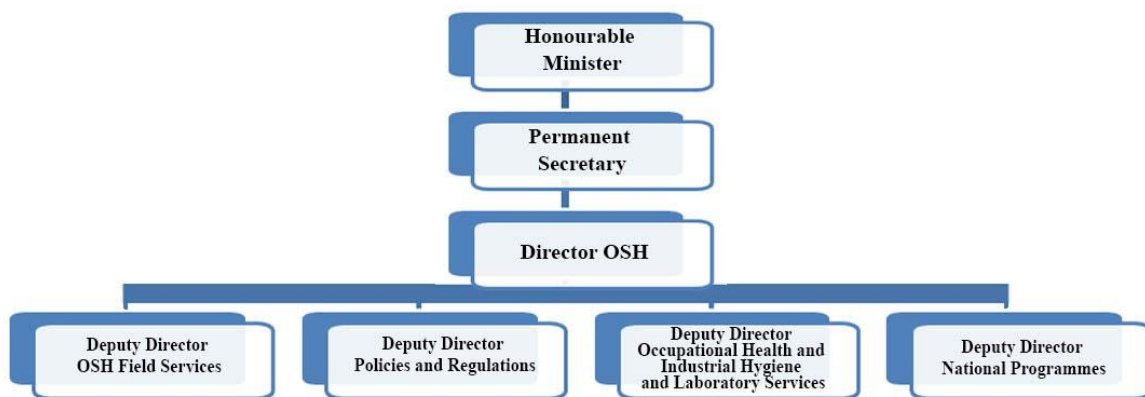


Figure 2. Organogram of the OSH Department

(source: https://www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/---ilo-abuja/documents/publication/wcms_552748.pdf)

The staffing of the labour protection department is presented in Figure 3. According to the 2016 statistics, the Department employs 267 people nationwide, the majority of whom are safety officers.

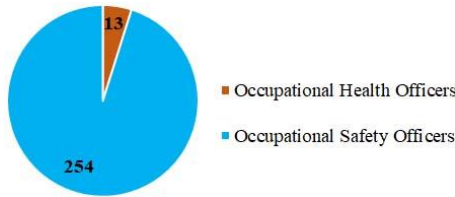


Figure 3. Personnel composition of the OSH Division (source: https://www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/---ilo-abuja/documents/publication/wcms_552748.pdf)

Functions of the OSH Division: the OSH Division in Nigeria is responsible for ensuring the safety, health, and welfare of workers. Its functions include developing a national safety and health preventative culture, establishing the national OSH management system, identifying and reviewing national policies and legislations, monitoring compliance and enforcement of the OSH policy, providing safety and health training, education, and advisory services, promoting awareness through campaigns, collecting and disseminating statistical data, conducting research, collaborating with other organizations, consulting with social partners, developing emergency preparedness and response plans, organizing national programs, and addressing any other duties assigned by the authority.

While carrying out its responsibilities to put the Factories Act's provisions into practice, most of the procedures shown in the enforcement pyramid (Figure 4) culminate in the issuance of improvement or warning notices; only a few cases result in the prosecution of negligent companies.



Figure 4. The OSH Division enforcement processes (source: https://www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/---ilo-abuja/documents/publication/wcms_552748.pdf)

The Federal Ministry of Health's Division of Occupational Health and Safety

According to Section 5.2 of the national OSH policy, the Federal Ministry of Health's enforcement responsibilities with relating to occupational safety and health are mainly to regulate, monitor and evaluate medical practice in the field of occupational health in the country. The Ministry executes this mandate through its OSH Division.

Establishment. The Division is headed by a National Director with thirty-one (31) other employees of varying functions and qualifications, of which five (5) are medical doctors (Figure 5).

Activities. The OSH Division collaborates with State Ministry of Health Occupational Health Units to implement occupational health and safety standards. Its routine activities include policy formulation, medical examinations, treatment of workers, health education, joint monitoring, and rehabilitation. It coordinates the activities of other stakeholders, coordinates national risk assessments, monitors the health status of young workers, and provides services at a standard Occupational Hygiene and Safety Laboratory. It also develops codes of practice and ensures workplace and workers' health audits.

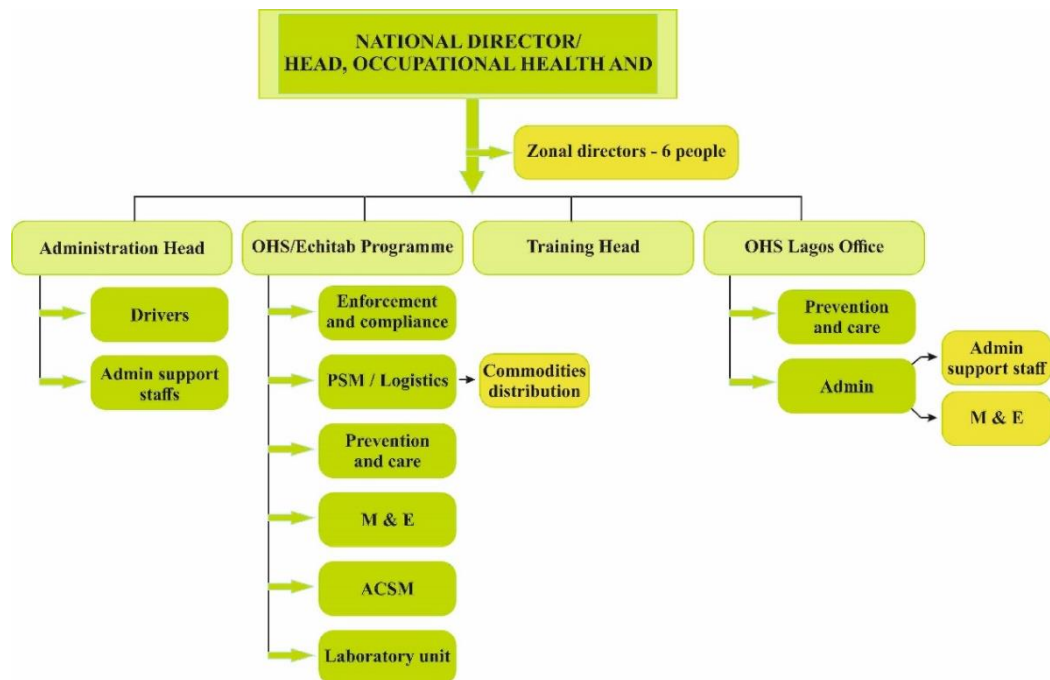


Figure 5. The Ministry of Health's OHS Department organogram (source: https://www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/---ilo-abuja/documents/publication/wcms_552748.pdf)

METHODOLOGY

Using both secondary and primary data, this research investigates occupational health and safety intelligence in contemporary enterprises. The study is based on Risk Society Theory and Sense-making, which focus on the factors that drive occupational health and safety concerns. It uses a hybrid research design that combines survey and content analysis. The sense-making theory offers a justification for decisions made in various domains, whereas the risk society theory draws attention to the complexity of social existence. Using in-depth interviews with a total of 17 participants, the primary data was gathered from managers and senior staff members of chosen firms in Ajaokuta, Kogi State, and Lagos State, Nigeria. These were Ajaokuta Steel Company Limited (ASCL) and Alumaco Aluminium Manufacturing Co of Nigeria Ltd, Ikeja, Nigeria. The goal of the study was to comprehend how post-industrial modernization affects occupational safety and environmental health, emphasizing the necessity of greater participation and decision-making in companies. Both content analysis and ethnographic methods were applied to the data. Due to Statistical Package for the Social Sciences (SPSS)'s capacity efficiently, quickly and analyse huge amounts of data and produce interactive plots, charts, and visuals, we conducted statistical analyses using Excel and the SPSS statistical tools following the collecting of the data, much like in earlier studies. These instruments allowed us to visually portray environmental risk elements.

RESULTS AND DISCUSSION

The study of the participants' sociodemographic data revealed that there were 10 men and seven women among them. Their ages ranged from thirty to fifty. The study's participants included 12 senior employees and 5 managers. Their years of employment ranged from five to thirty. Men and women with sufficient work experience showed signs of maturity, according to a detailed examination of the sociodemographic features of the participants. Their opinions on occupational health and safety information in their organizations can be taken seriously.

Management of occupational health and safety risks

Every participant reported certain risks in their workplaces, demonstrating that occupational risks can affect anyone, regardless of position or level of employment within the firm. All employees are susceptible to occupational dangers, according to some participants, but blue-collar workers may be more so than management personnel or white-collar workers. Depending on the work environment and nature of activities in each organization, not all hazards were of the same types. For instance, whereas bankers may be more at risk of robbery during working hours, power workers may be more at risk of electrocution. In a similar vein, healthcare personnel are more susceptible to diseases through pathogen exposure than aviation workers, whose lives may be in danger in the event of an aircraft crash. One of the attendees observed that:

1. There are risks, and we recently had to fight the authorities to get them to admit there are lots of risks: Through consultations and cannulation, doctors could contract hepatitis B and HIV as well as tuberculosis. While administering injections, nurses are at risk. The Laboratory workers deal with blood. While emptying trash, they risk being poked by needles and being contaminated.
2. The prevalence of risks in workplaces is a reflection of Nigeria's public health planning's inadequate occupational health and safety programs. The Nigerian government has made investments in the advancement of elementary,

secondary, and tertiary health care. However, occupational medicine is still a relatively undeveloped field of medicine in Nigeria.

3. In reference to the management of occupational health and safety concerns, awareness, training programs, and seminars were frequently mentioned in the participant narratives. This indicates that each and every participant understood the importance of workplace health and safety to a high degree. Specifically, two thirds of the participants stated that their employers raised employee awareness of health and safety.

4. A few interviewees mentioned that their companies offer specialized health and safety training. All the participants did, however, concur on the importance of providing health and safety training to every employee in their company. In this instance, different organizations had a different frequency of safety training. Examples of organizational reactions to the safety issue include the following:

- employees must be made aware of all applicable health and safety regulations. Additionally, medical exams are performed every three months to make sure there are no hygiene or security issues. In this organization, it is required to abide by this rule;
- we offer technical training on occupational health and safety issues as part of our tailored training to address the certain workplace issues. The training's main objective is to raise awareness. After informing the staff of the health and safety requirements, the following step is to ensure compliance;
- the fire station has a total of 17 employees who operate in shifts. Usually, we go out and lecture folks. We converse with the departments at Ajaokuta Steel Company Limited (ASCL) and do both practical and theoretical training. The water treatment plant, a seaport and a 110 MW power generation plan are recent examples.

Another method of controlling workplace health and safety concerns is adherence to general precautions. More than half of the participants made note of their observations regarding their organization's adherence to safety precautions. Three banking sector professionals stated that the International Standard Organization comes to their establishments once a year to examine all aspects of the bank. On the other hand, some participants only answered the compliance question if they could access safety devices, which resulted in a conditional response.

Funding for work-related health and safety initiatives

The underfunding of occupational health and safety initiatives and the underestimate of the expenses related to these expenditures surfaced as two major topics among the participants. Merely one-third of the participants offered valuable information regarding the level of investment made by their employers in occupational health and safety initiatives. One participant provided the following illustration of how funds were allocated for occupational health and safety:

I recently approved the use of 650,00.00 NGN to purchase gloves, shoes, headgear, and outfits for roughly 73 people. Since these tools are already certified, hygiene rather than safety is their main concern.

Nevertheless, the data provided regarding the expenses associated with funding occupational health and safety initiatives is limited to the price of occupational health and safety training programs and the provision of necessary safety equipment, such fire extinguishers, gloves, gowns, and goggles. Two supervisors among the participants said that occupational health and safety training programs cost at least 160,000.00 NGN per employee.

While one-third of the interviewees confirmed that various safety equipment, including fire extinguishers, boots, gloves, headgear, and uniforms, is available, they did not specify how much these items cost in their companies. While some participants expressed the belief that their company's main office is in charge of providing materials for occupational health and safety training, others noted that the cost of these programs varies across their organizations' branches:

– regarding the amount of money spent on a health and safety program in this organization, I am unsure and am unable to provide accurate information. In fact, important decisions are taken at the headquarters of our organization. Immediately from the corporate headquarters, including training materials for the health and safety program;

– we should have the more gears, such as high-tension insulators, but we don't have them because they are out of our reach. All workers require face masks, but we don't have any, to protect us from breathing in the gas or smoke. We still have the breathing device we formerly had, but it is outdated;

– now, there are new ones. All the equipment needs to function properly for us to appear to be performing our job. Fire engines are required. The one we have has been packing for more than two years. We also require entertainment equipment, such as televisions, air conditioners, games, and DVDs showing how to put out fires.

A few participants gave estimates for the cost of different investments in occupational health and safety programs that varied up to 11 million NGN. The expensive nature of occupational health and safety was brought up by one person. According to her, each employee would require personal protective equipment valued at 160,000.00 NGN, and the company would require 48,000,000.00 NGN to cover the expenses of 300 employees.

A few participants disclosed that their companies allotted up to 500,000.00 NGN annually for budgetary items related to occupational health and safety. But two-thirds of the interviewees said they had no idea how much money their companies had specifically put aside for safety and health equipment for workers.

Reasons to Invest in Safety Measures

The stories shared by most of the participants showed how occupational health hazards could have a detrimental impact on workers' and managers' man-hours, productivity, and job security. This indicates that if occupational health and safety intelligence was not given, there would have detrimental effects on the labour force, businesses, and society as a whole. The aforementioned conclusion states that in order to support organizational and individual development, appropriate investment in occupational health and safety knowledge is necessary. Furthermore, as documented by Siegel (1964, p. 964): "Health, its maintenance, and payment for disease and illness of all types have become the direct and rising costs of doing business. Industry has a great and increasingly important role in community health needs and resources".

Some participants noted a direct correlation between organizational commitment, suitable compensation, and employee job security and adequate investment in occupational health and safety intelligence. A sufficient investment in safety intelligence will advance societal progress by increasing organizational efficiency and profitability.

If occupational health and safety information is lacking, the organization's efficiency will suffer. And if risks materialized, such as a fire outbreak, the organization would lose property,

and funds allocated for other purposes would be diverted to renovate burned buildings and other assets. The advantages outweigh the expense of the expenditure that would have been made in the equipment acquisition for occupational health and safety. In the event that the organization does not take this seriously and there develops a serious issue, the organization may have to deal with legal concerns.

Previous research on the direct and indirect costs of occupational hazards was done by Loewenson (1999). The misery inflicted on workers' families is one of the most obvious indirect costs of occupational hazards for businesses, while wage payments, compensation, and the repair or replacement of machinery and equipment are some of the direct expenses.

CONCLUSION AND PROPOSED POLICIES

The primary data was collected from managers and senior employees of selected enterprises in Ajaokuta, Kogi State, and Lagos State, Nigeria, through in-depth interviews with a total of 17 participants. These were Alumaco Aluminium Manufacturing Co of Nigeria Ltd. and Ajaokuta Steel Company Limited (ASCL), both located in Ikeja, Nigeria. Examining environmental health and occupational safety in Nigerian workplaces, this study highlights the need for adequate program funding. It highlights the significant prevalence of risks to occupational health and safety in Nigerian workplaces, which are brought on by factors such as negligence, a lack of knowledge, and inadequate training. The report suggests promoting the expansion of occupational health services and educating medical practitioners on how to recognize work-related disorders early on. Furthermore, it requires Nigerian businesses and governments to follow ILO Convention 155 on occupational health and safety, as doing so could result in cost savings for employers who make the necessary investments.

The article also suggests investing in employee training on workplace safety, enforcing current regulations, running more awareness campaigns for businesses and employees, and amending occupational health and safety laws to encompass mental and emotional wellness. It also implies that failure to comply with health and safety regulations by companies should result in consequences. The article's conclusion states that putting ISO 45001 into practice can have a number of advantages, such as lower incident costs, more efficacious businesses, and higher worker productivity. It highlights how crucial workplace health and safety are for affecting worker motivation, job satisfaction, and output.

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Author's statements

Contributions

Conceptualization: A.O.A., F.M.A., C.O.A.; Data curation: A.O.A., C.O.A.; Formal Analysis: A.O.A., F.M.A., C.O.A.; Funding acquisition: F.M.A.; Investigation: A.O.A., F.M.A., C.O.A.; Methodology: A.O.A., F.M.A., C.O.A.; Project administration: F.M.A.; Supervision: F.M.A.; Visualization: A.O.A., C.O.A.; Writing – original draft: A.O.A., F.M.A., C.O.A.; Writing – review & editing: A.O.A., F.M.A., C.O.A.

Declaration of conflicting interest

The authors declare no competing interests.

Financial interests

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Data availability statement

The authors do not have permission to share data due to ethical restrictions.

AI Disclosure

The authors declare that they did not use generative AI to assist you in writing this manuscript.

Ethical approval declarations

The authors declare that written informed consent was obtained from the participants of the study. All respondents were adults and voluntarily agreed to participate in the current study.

Additional information

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