Analysis of Factors Influencing Health and Safety Programme in Selected Electricity Distribution Companies

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Abstract

The study determined the factors influencing health and safety programmes in selected electricity distribution companies in Southwest Nigeria. The study used a descriptive survey research design. Primary sources of data were used, and data were gathered through the administration of questionnaires. The population for the study comprised 11,621 workers from electricity companies in Southwest Nigeria. A sample size of 400 was determined using the Taro Yamane formula, and 385 were valid for usage. The sample was selected using a two-stage sampling technique. At the first stage, a purposive sampling technique was used in selecting employees who have spent at least five years in the company; at the second stage, a stratified random sampling technique was used in selecting employees using a senior, middle, and junior categorisation of workers for stratification. The results also revealed that human factors ($t = 5.836$, $p < 0.05$), management factors ($t = 3.898$, $p < 0.05$), organisational factors ($t = 2.120$, $p < 0.05$), and environmental factors ($t = 2.102$, $p < 0.05$) were the factors influencing occupational health and safety practices in the study area. The study concluded that occupational health and safety practices have the potential to reduce the rate at which accidents and injuries occur among workers, thereby improving the employees' performance in Southwest Nigeria. The study recommended that factors that could reduce the potency of the health and safety programme should be controlled and

prevented.

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1. Introduction

The term health and safety programme refers to all procedures, laws, and regulations that employers, as well as designers of the environment and architects, put in place to uphold and advance employee safety and well-being. Most organisations today have adopted several measures to improve, maintain, and sustain employee health and safety at the workplace. The efficacy of health and safety management at the workplace is determined largely by the nature of the work performance systems and institutional work practices and policy, management commitment, and managerial potency in seeking uninterrupted advancement and sustenance of OHSP (Armstrong, 2006). Employee safety and health at work is defined by Jackson et al. (2009) as the physical and psychological condition (mental, emotional, intellectual, and cerebral) of a workplace. Occupational diseases, exposures, and accidents that result in the loss of life or any part of the body are examples of physiological conditions, whereas signs of poor mental health and job stress are examples of psychological disorders. According to the Joint ILO/WHO (1995), occupational health should aim to advance and uphold the highest level of physical, mental, and social well-being for workers in all fields; prevent absenteeism from work due to their working conditions; and protect workers from risks (Kaynak et al., 2016; Dunmade et al., 2019; Amedome, 2017).

1.1. Objectives of the Study

i. Identify the factors influencing the health and safety programme in the selected electricity distribution companies in Southwest Nigeria;
ii. Investigate the effect of influencing factors on the health and safety programme in the selected electricity distribution companies in Southwest Nigeria.

2. Health and Safety Programme

A company's health and safety programme entails activities taken to reduce or eliminate hazardous working conditions and unsafe behaviours. Reducing dangerous conditions is always an employer's starting point for defence in accident prevention (Ladewski & Al-Bayati, 2019). Also, businesses must give extra attention to workers who are at risk due to linguistic problems, lack of awareness, incorrectly fitted PPE, or physical or mental limitations in order to establish safe and healthy workplaces (Budhathoki et al., 2014). Every employee of a company, including those employed on a contract basis, is responsible for ensuring a safe and healthy workplace and minimising any risks to health and safety that may exist (Mazzetti et al., 2020). Programmes for OHS are created to abate the effects of disease and disaster that can occur at the workplace (Lee, 2018; Fruhen et al., 2019).

However, Kim and Scott (2019) contend that creating a safe and healthy workplace is necessary for improved performance to exist. The organisations with the best safety records have comprehensive, well-thought-out health and safety policies. Safety concerns should start at the top of the organisation, with the manager, followed by the supervisor. Fewer employees will suffer short- or long-term negative consequences from working for a firm that implements strong safety and health policies (Jonathan & Mbogo, 2016). Organisations rely on employees as collaborators and community members, according to Borowski et al. (2020), Feng et al. (2011), and Hu et al. (2020). The creation of a safe and healthy work environment and the removal of all risks from an organisation, as well as individuals employed there temporarily.

Organisations become significantly more effective by lowering the incidence and severity of occupational illnesses, accidents, workplace violence, and stress-related illnesses, as well as by raising the standard of living for their workers (Ajmal et al., 2020). Fines for non-compliance, health insurance premiums, and payments for unproductive labour are just a few of the expenditures that organisations worry about minimising while investing in health and safety initiatives (Classen et al., 2020; Occupational Safety and Health Act (OSHA), 2004). They gain from having healthy workers as some companies have been willing to invest in creating wellness programmes and facilities for this aim (Ajmal et al., 2021). Workplace safety and health can be improved through a variety of approaches. Programmes created to lessen illnesses, accidents, and injuries, stress management skills, and the general wellness of employees are among the most popular (Mazzetti et al., 2020), while some of the therapies aim at altering employees' lifestyles and extracurricular behaviours. All of these measures can lower the high expenses linked to employee accidents, illnesses, and deaths (Fruhen et al., 2019).

2.1. Overview of Factors Influencing Occupational Health and Safety Practices

The factors that could influence the OHSP in the organisation are organisational factors, management factors, environmental factors, and human factors.

2.1.1. Organisational Factors

Organisational factors include anything within the employment context; they may have a direct or indirect effect on the activities of the firm at a particular point in time. These organisational factors may either affect the employee negatively or positively, depending on the influence they have on the activities (Brough, 2004). The literature points out some common

organisational factors found among employees: safety orientation for the new employee, provision of safety and health policies, safety communication, education training on personal protective equipment, and collaboration among management and employee representatives, which may lead to higher job satisfaction (Eskandari, 2017; Purba & Demou, 2019; Harrison, 2019). The dynamism of an organisational factor determines the way and manner in which they react to internal and external forces. Organisations are easier to comprehend if they are analysed as dynamic objects; managers will have enough strategies in responding to controversial requirements. The dynamic nature of organisations provides an explanation for the fact that pursuing safety is not a one-off duty. It is not sufficient that crucial work processes are carried out correctly once or twice, but they have to be performed with the same quality day in, day out, year by year, irrespective of the fact that people exit and new recruits are being onboarded to the organisation (Baumont, 2000).

2.1.2. Management Factors

Negligence that results in workplace accidents and injuries could not only be traced to employee carelessness but also to the top management that shuns a crucial role in preventing workplace accidents (Al-Refaie, 2013). There is a need for the management to give priority to the implementation and enforcement of occupational health and safety practices, which could be achieved by a number of ways, which include but are not limited to taking defensive measures and releasing information that is helpful to employees by training and directing them to carry out their jobs safely. Employees should be safety conscious and care enough to perform their obligations regarding work safety while working (Neal et al., 2000). Therefore, to achieve higher safety in an organisation, both management and workers must implement and enforce the safety practices available to them.

2.1.3. Environmental Factors

Numerous environmental factors can affect the health and well-being of employees. These include air quality, noise, and lighting, among others (Tulchinsky & Varavikova, 2014). When organising a workspace, the work to be performed there must be taken into account. Ensure that all traffic routes are easy and marked as needed and that staff have adequate and safe operating space. It is assumed that the size of the workroom, which is used for most of the working day, should be spacious enough to have enough airspace when working.

2.1.4. Human Factors

Human factors in safety are concerned with all those factors that influence people and their actions towards safety-critical situations. If any employer thinks that safety is expensive, they should understand that the cost of having an accident is not palatable (Vogt et al., 2010). Managing and preventing human failures cannot be overemphasised, and it is not without cost implications. If management does not proactively handle it, it could halt the business's going concern. Excellent technology combined with the best work strategy can help businesses achieve high productivity and service quality while enforcing occupational health and safety practices to achieve the set goals. The best work arrangement is based on having the best brain with the needed skill, job descriptions that are suitable for individuals' abilities. Notably, the influence of both psychological and organisational factors could affect human health and safety; it should be noted that in the long

run, they have an effect on their efficacy and productivity. Since individuals have a wide range of abilities and constraints, the human factors approach should focus on how to make the best use of these capabilities by organising responsibilities and PPE which are fit for people (Ünal et al., 2018). This does not only improve the health and safety of the employees but also ensures a better, more effective, and reputable organisation.

2.1.5. Theoretical Review

Human Factors Theory

The purpose of Ferrell's study of human factors theory is to improve performance, increase safety, and enhance user happiness by focusing on how people interact with tools, systems, and processes within organisations. Thus, the theory of human factors is advantageous to employees. Human factors theory is founded on the idea that mistakes made by humans lead to accidents. Overload, unsuitable activity, and inappropriate responses have all been highlighted as the three human elements that can cause human errors. When a person is required to complete an excessive number of tasks, it is said that overload has occurred. Whether or not this person is qualified, the overburdened condition presents the potential for a mishap. When there are obvious physical constraints, the overload may be physical or psychological, causing stress (for instance, a weakling asked to lift a heavy load). When a person is not properly trained to carry out their tasks, it is said that an inappropriate behaviour has taken place. This can be the result of inadequately supervised training and incorrect assessments of job dangers. This is one of the reasons for ensuring that every learner completes a real task while receiving on-the-job training, always under close observation. Finally, qualified people intentionally breaking a procedure for high productivity or failing to address the issue after it is identified both constitute unacceptable responses. This could also entail disobeying workplace safety regulations and responding inappropriately to hazards that have been discovered (such as failure to wear personal protective clothing).

The central tenet of Human Factors Theory, that most accidents are caused by human error, is supported by empirical data. Approximately 72% to 91% of all industrial accidents are thought to be caused by human error (Health & Safety Executive, 2008; Kirschenbaum, et al., 2000). According to Hämäläinen (2009), there were about 16,500 fatal accidents and nearly 2 million disabling occupational accidents in American industry. Additionally, it has been widely asserted that only about 5% of motor vehicle accidents are the consequences of mechanical breakdowns, with 95% being related to the inadequacies of the person operating the machine. As a result, it is acknowledged that employees, supervisors, and senior management have all made risky decisions that have contributed to the unsafe environments that can lead to accidents. For instance, unsafe conditions arise when people are unaware that they exist and don't act to fix them when they are aware.

2.1.6. Goal-Freedom Alertness (GFA) Theory

Goal-Freedom Alertness (GFA) Theory was introduced by Kerr (1950), and he firmly asserted that workplace safety improves performance, organisations, and outcomes (Oppong, 2011). According to the GFA theory, unsafe workplace behaviour by employees leads to accidents. By fostering a supportive company culture and psychological climate, this

behaviour can be corrected by increasing worker awareness. Mishaps can be decreased, for instance, by ensuring that employees are encouraged to maintain good housekeeping. The GFA theory implies that psychological judgements of workplace conditions, such as culture, climate, and justice, are important in explaining why accidents happen. An effective strategy to convey to employees that a company values safety and will stop at nothing to maintain it is by establishing and maintaining a positive safety climate and culture in the workplace. In a similar vein, organisational justice or perceived fairness on the part of employees regarding how management manages or enforces its safety regulatory regime is also evidence that no one is exempt from punishment for violations.

Employee work-related behaviour and performance have been demonstrated to be influenced by these psychological factors. For instance, there is a consistent relationship between psychological climate and many metrics of organisational effectiveness and employee outcomes (Grawitch et al., 2007; Petersen, 1996; Paul & Anantharaman, 2003; Pfeiffer, 1998; Von Glinow et al., 2002). In the area of occupational safety and health, a study showed in a meta-analytic study that the safety climate has an impact on safety performance, safety compliance, and actual accidents. However, it was found that the safety climate had a greater impact on safety performance than on safety compliance. The same study also showed that safety performance had a greater influence on accident occurrence than safety compliance. These overwhelming empirical results have made the GFA hypothesis a key participant in the field of accident causation theories.

For the purpose of this study, goal-freedom-alertness is used as an anchor theory. The justification for the usage of this theory is that it incorporates the main variables considered in the study (occupational health, safety practices, and employees' performance).

2.2. Empirical Review

Othman et al. (2020) carried out research on the critical success factors influencing construction safety programmes in Malaysia as one of the developing countries. A semi-structured interview was conducted to gain in-depth insight and understanding of those factors that have the potential to influence OHS in construction projects. Sixteen respondents were interviewed by experts and professionals in Iraqi construction companies. The results showed the importance of factors such as management commitment, safety training, and the enforcement of safety rules and regulations, as well as stakeholders' collaboration. The level of technology is the new factor that was revealed by respondents. The study recommended that management should be more committed, engage employees in relevant training, and ensure the collaboration of stakeholders to have enforceable safety rules and regulations.

Nordlof et al. (2017) conducted a cross-sectional study of factors influencing occupational health and safety management practices in Sweden. The primary data were collected through a well-structured questionnaire. Manufacturing companies with at least 10 employees were selected for the study, and statistical analysis used ordinal regression analysis to generate a generalized estimating equation. This study considered various elements that may influence occupational health and safety management (OHSM) practices in manufacturing companies, including company size, which was found to be relatively connected with the conclusion; the larger-sized company tends to appreciate OHSM practices. The converse was also found to be true, that a company that is smaller in size will tend to neglect OHSM practices. Moreover,

the result has an important dependence on safety culture in the selected companies; the more positive the safety cultures, the more the OHSM practices. In another perspective, if there is a negligent attitude towards the safety culture in the company, there is a tendency that the OHSM practices will be worse.

Oladejo (2020) investigated the factors responsible for the non-implementation of H&S management practices by contractors in the Nigerian construction industry. The objectives were to appraise the condition of H&S, examine H&S management models in order to identify the key elements and procedures of H&S management, analyse H&S management implementation in construction companies, develop a conceptual framework for establishing elements affecting the implementation of H&S management, improve the conceptual framework, and to develop an instrument to collect and analyse data, discuss and compare the extant literature with the empirical research findings of the present study, and to draw conclusions from the findings of the study and propose implications for H&S management in Nigeria. A descriptive survey research instrument was developed, and copies of the questionnaire were used to gather the needed data. The total population included Directors or top management of construction industries. The 350 copies of the questionnaire were administered by the researcher to the top management and relevant professionals in construction industries. The findings revealed that H&S management practices are an important issue in the Nigerian construction industry; however, the rate of accidents is very high. In addition, key elements that influence the occupational health and safety management practices among construction firms in Nigeria include the size and age of construction companies. The study recommended that public policy towards occupational health and safety management practices should be provided by policymakers to restrain the rate at which workers of the construction industry in Nigeria experience accidents and injuries.

3. Methodology

The study used a descriptive survey research design. The study used primary sources of data, and the data were gathered through the administration of a questionnaire. The population for the study comprised 11,621 workers of electricity companies in Southwest Nigeria. A sample size of 400 was determined through the use of Taro Yamane's formula. The sample was selected using a two-stage sampling technique. At the first stage, a purposive sampling technique was used in selecting employees who have spent at least five years in the company; at the second stage, a stratified random sampling technique was used in selecting employees using a senior, middle, and junior categorisation of workers for stratification. Two experienced research assistants were used in gathering data for the variable studied. Out of the 400 copies administered, 385 were useful for the analysis done with the descriptive test and the inferential statistics.

4. Factors That Influence Health and Safety Programme in Selected Electricity Distribution Companies in Nigeria

4.1. Organisational Factors

Table 4.1 indicated that the selected companies' new workers received safety orientation, and safety and health policies were disclosed by the company. It was strongly agreed that employees received training on how to use Personal Protective Equipment (PPE), and they were likewise trained to recognise hazards at work. It was also indicated that the training given has changed the behaviour of concerned employees and they have received encouragement to report workplace accidents. The table also indicated that there was an existence of an official safety and health reporting system. Moreover, the table revealed that hazard assessment was done by the management and employees' representatives. There is an indication of a penalty for any non-compliant official (Field survey, 2022). This study was similar to prior studies on factors influencing health and safety programmes that showed the efforts of organisations to perform their roles in putting safety measures in place in order to reduce accidents and injuries (Eskandari, 2017; Purba & Demou, 2019; Harrison, 2019).

Table 4.1. Organisational factors influencing health and safety programme

Statement	Strongly Agree 5 Freq/%	Agree 4 Freq/%	Undecided 3 Freq/%	Disagree 2 Freq/%	Strongly Disagree 1 Freq/%	Total	Mean	Standard Deviation
Every new worker receives safety orientation and safety.	164 (42.6)	87 (22.6)	116 (30.1)	14 (3.6)	4 (1.0)	385 (100)	4.02	0.984
All safety and health policies are disclosed by the company.	285 (74.0)	86 (22.3)	9 (2.3)	5 (1.3)	-	385 (100)	4.69	0.582
Employees received training on how to use personal protective equipment	200 (51.9)	105 (27.3)	62 (16.1)	14 (3.6)	4 (1.0)	385 (100)	4.25	0.926
Employees are trained to recognize hazard at work	180 (46.8)	160 (41.6)	36 (9.4)	9 (2.3)	-	385 (100)	4.33	0.741
Employees received first aid training	170 (44.2)	108 (28.1)	68 (17.7)	34 (8.8)	5 (1.3)	385 (100)	4.05	1.043
Training received changes my behaviour about safety and health issues	261 (67.8)	115 (29.9)	4 (1.0)	5 (1.3)	-	385 (100)	4.64	0.574
Employees are encouraged by their employer to report workplace accident.	267 (69.4)	109 (28.3)	-	-	9 (2.3)	385 (100)	4.62	0.719
We have an official safety and health reporting system.	254 (66.0)	116 (30.1)	10 (2.6)	5 (1.3)	-	385 (100)	4.61	0.608
The management and employee representative work together to undertake the hazard assessment.	183 (47.5)	138 (35.8)	52 (13.5)	8 (2.1)	4 (1.0)	385 (100)	4.27	0.847
Regular health and safety standards assessment are conducted by the company	194 (50.4)	133 (34.5)	53 (13.8)	5 (1.3)	-	385 (100)	4.34	0.761
Inspector imposes penalty when the employer is not complying	132 (34.3)	177 (46.0)	62 (16.1)	14 (3.6)	-	385 (100)	4.11	0.799
Grand Mean							44.19	

Source: Field survey, (2022)

4.2. Environmental Factors Influencing Health and Safety Programme

Table 4.2 indicated that the employees of the selected companies are satisfied with the health and safety practices

implemented, and also pointed out that management gave prompt responses to safety issues. The table also revealed that employees are satisfied with the level of hygiene, and that chemicals and hazardous materials are clearly identified and housed in a safe room. There was an indication from the table that a comfortable working environment improves the performance of the workers, and they often received refresher training on health and safety programmes (Field survey, 2022). This study was similar to a prior study on factors influencing health and safety programmes that showed that numerous environmental factors can affect the health and well-being of employees. These include air quality, noise, lighting, among others (Tulchinsky & Varavikova, 2014).

Table 4.2. Environmental factors influencing health and safety programme

Statement	Strongly Agree 5 Freq/%	Agree 4 Freq/%	Undecided 3 Freq/%	Disagree 2 Freq/%	Strongly Disagree 1 Freq/%	Total Freq/%	Mean	Standard Deviation
I am satisfied with the health and safety practices implemented in my workplace	133 (34.5)	213 (55.3)	13 (3.4)	18 (4.7)	8 (2.1)	385 (100)	4.16	0.855
Management gives a prompt response to safety issues	133 (34.5)	213 (55.3)	29 (7.5)	10 (2.6)	-	385 (100)	4.22	0.692
I am satisfied with the level of hygiene at my workplace	121 (31.4)	222 (57.7)	21 (5.5)	10 (2.6)	11 (2.9)	385 (100)	4.12	0.847
That chemical and hazard material are clearly identified and housed in a safe room	208 (54.0)	146 (37.9)	18 (4.7)	9 (2.3)	4 (1.0)	385 (100)	4.42	0.776
Comfortable working environment improve performance	145 (37.7)	179 (46.5)	52 (13.5)	5 (1.3)	4 (1.0)	385 (100)	4.18	0.790
We often receive refresher training on health and safety programme	143 (37.1)	160 (41.6)	25 (6.5)	57 (14.8)	-	385 (100)	4.01	1.015
Grand Mean							21.77	

Source: Field survey, (2022)

4.3. Management Factors Influencing Health and Safety Programme

Table 4.3 indicated that management viewed the health and safety programme as important, and management made sufficient provision for resources to improve the health and safety programme. There was an agreement that enforcement of the health and safety programme was a management priority, and that the implementation of a strategy on the health and safety programme was developed by top management. The table revealed that the usage of health and safety posters is common, and that management appointed health and safety professionals. It was also agreed that top management provides a first aid box to attend to accidents and injuries (Field survey, 2022). This study was similar to a prior study on factors influencing the health and safety programme that showed that negligence resulting in workplace accidents and injuries could not only be traced to employee carelessness but also to the top management that shunned a crucial role in preventing workplace accidents (Al-Refaie, 2013).

Table 4.3. Management factors influencing the health and safety programme

Statement	Strongly Agree 5 Freq/%	Agree 4 Freq/%	Undecided 3 Freq/%	Disagree 2 Freq/%	Strongly Disagree 1 Freq/%	Total	Mean	Standard Deviation
Mgt sees health and safety programme as important	161 (41.8)	82 (21.3)	138 (35.8)	-	4 (1.0)	385 (100)	4.03	0.934
Mgt makes sufficient provision for resources to adopt health and safety programme	155 (40.3)	143 (37.1)	20 (5.2)	67 (17.4)	-	385 (100)	4.00	1.074
Enforcement of health and safety programme is mgt priority	147 (38.2)	150 (39.0)	74 (19.2)	10 (2.6)	4 (1.0)	385 (100)	4.11	0.873
Implementation strategy on health and safety programme was developed by top mgt	134 (34.8)	108 (28.1)	124 (32.2)	15 (3.9)	4 (1.0)	385 (100)	3.92	0.957
Usage of health and safety posters are common	174 (45.2)	143 (37.1)	50 (13.0)	10 (2.6)	8 (2.1)	385 (100)	4.21	0.912
Mgt appoints health and safety professionals	204 (53.0)	154 (40.0)	13 (3.4)	10 (2.6)	4 (1.0)	385 (100)	4.41	0.769
Top mgt provides first aid box	259 (67.3)	91 (23.6)	17 (4.4)	10 (2.6)	8 (2.1)	385 (100)	4.51	0.863
Grand Mean							25.32	

Source: Field survey, (2022)

4.4. Human Factors Influencing the Health and Safety Programme

Table 4.4 indicated that workers' non-compliance influences the health and safety programme, and that there is low commitment from top management. It also revealed that there is negligence on the part of the employees toward the health and safety programme, and that human failures influenced employees' attitudes towards the health and safety programme (Field survey, 2022). This study corroborated the previous study on factors influencing the health and safety programme that showed that the human factors approach should focus on how to make the best use of these capabilities by organising responsibilities and personal protective equipment which are fit for the task (Ünal et al., 2018).

Table 4.4. Human factors influencing the health and safety programme

Statement	Strongly Agree 5 Freq/%	Agree 4 Freq/%	Undecided 3 Freq/%	Disagree 2 Freq/%	Strongly Disagree 1 Freq/%	Total	Mean	Standard Deviation
Workers' non compliance influence the health and safety programme	9 (2.3)	66 (17.1)	21 (5.5)	122 (31.7)	167 (43.4)	385 (100)	2.03	1.178
There is low commitment from top mgt	9 (2.3)	31 (8.1)	29 (7.5)	176 (45.7)	140 (36.4)	385 (100)	1.94	0.985
There is negligence on the part of the employees toward health and safety programme	9 (2.3)	43 (11.2)	33 (8.6)	80 (20.8)	220 (57.1)	385 (100)	1.81	1.132
Human failures influence employees attitude towards health and safety programme	4 (1.0)	40 (10.4)	49 (12.7)	107 (27.8)	185 (48.1)	385 (100)	1.89	1.052
Grand Mean							6.25	

Source: Field survey, (2022)

Table 4.5. Model summary of regression estimates for extracted factors and Health and Safety Programme (HSP)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.832[a]	0.692	0.688	0.332

Table 4.6. Combined effect of the extracted factors on health and safety programme (ANOVA[a])

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	94.082	5	18.816	170.510	0.000[b]
	Residual	41.824	379	0.110		
	Total	135.906	384			

[a] *Dependent Variable: HASP*

[b] *Predictors: (Constant), HF, MMSPR, MCEER, FECP, MCPN*

Table 4.7. Effect of the extracted factors on health and safety programme (Coefficients[a])

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.463	0.183		2.521	0.012
	MCPN	0.226	0.035	0.221	6.418	0.000
	MCEER	0.031	0.028	0.037	1.098	0.273
	FECP	0.291	0.024	0.359	11.885	0.000
	MMSPR	0.357	0.016	0.644	21.841	0.000
	HF	0.050	0.017	0.089	2.907	0.004

[a] *Dependent Variable: HSP*

Keys

- MCPN = My company provides notice on all occupational safety and health procedures
- MCEER = My company encourages employees to report accidents that occur at work
- FECP = Favourable environmental conditions provided at work will increase my productivity
- MMSPR = Management makes sufficient provision for resources to adopt OHS practices
- HF = Human failure
- HASP = Health and Safety Programme

5. Discussion of Findings

Based on the findings from Table 4.5 to Table 4.8 in this study, however, it is scientifically justifiable to reject the null hypothesis one, which states that “there are no significant factors influencing the health and safety programme of the selected electricity distribution companies in Nigeria.” Hence, the study accepts the alternative hypothesis and concludes that “there are significant factors influencing the health and safety programme of the selected electricity distribution companies in Nigeria.” The findings corroborated the study of Yu et al. (2019), who opined that the level of management control influences the extent of employee attitude and disposition to safety measures put in place. The study of Mwangi and Waiganjo (2017) supported their findings. Nordlof et al. (2017) found that the negligent attitude of workers influences occupational health and safety practices; they are of the opinion that a negligent attitude towards the safety culture in the company will worsen OHS practices. Othman et al. (2019) corroborated the study in their opinion that management should be more committed, engage the employees in relevant training, and ensure the collaboration of stakeholders to have enforceable safety rules and regulations.

6. Conclusion

This study proved that the factors influencing the health and safety programme identified and analysed had a significant effect on the selected electricity distribution companies in the Southwest, Nigeria. Thus, the identified factors such as organisational factors, management factors, environmental factors, and human factors were strong predictors of the selected electricity distribution companies’ health and safety programme. The findings of this study implied that organisational factors, management factors, environmental factors, and human factors are valid constructs for predicting the health and safety programme of electricity distribution companies in the Southwest, Nigeria.

7. Recommendations

The following recommendations are suggested based on the findings of the study and the conclusion agreed upon, which could help in the deployment of a health and safety programme among employees of electricity distribution companies in the Southwest, Nigeria. Management of electricity distribution companies in the Southwest should allocate a substantial amount of resources to ensure that the health and safety programme increases so that employee performance could be improved and sustained. Upon the identification and acceptance of the health and safety programme, management must take steps as a matter of urgency to handle, put under control, and prevent the negative effects of factors that influence the OHSP, like organisational factors, management factors, environmental factors, and human factors, which were indicated as the highest factor that influenced the health and safety programme.

References

- Ajmal, M., Isha, A. S. N., Nordin, S. M., Kanwal, N., Al-Mekhlafi, A.-B. A., & Naji, G. M. A. (2020). A conceptual

framework for the determinants of organisational agility: Does safety commitment matters? *Solid State Technology, 63*(6), 4112-4119.

- Ajmal, M., Isha, A. S. N., Nordin, S. M., Sabir, A. A., Munir, A., Al-Mekhlafi, A.-B. A., & Naji, G. M. A. (2021). Safety management paradigms: Covid-19 employee well-being impact on occupational health and safety performance. *Journal of Hunan University Natural Sciences, 48*(3).
- Al-Refaie, A. (2013). Factors affect companies' safety performance in Jordan using structural equation modeling. *Safety Science, 57*, 169-178.
- Amedome, S. N. (2017). The Impact of occupational health and safety measures on employee performance at the South Tongu district Hospital. *Global Journal of International Research, 17*(5), 13-19.
- Armstrong, M. (2006). *Human Resource Management Practice* (10th ed.). London: Kogan Page Ltd.
- Beaumont, G., Wahlstrom, B., Sola, R., Williams, J., Frischknecht, A., Wilpert, B., & Rollenhagen, C. (2000). Organisational factors their definition and influence on nuclear safety. Final report. Espoo: Technical Research Centre of Finland, VTT Tiedotteita – Meddelanden - Research Notes 2067.
- Borowski, D., Sieroszewski, P., Czuba, B., Jaczynska, R., Anna, K., Kwiatkowski, S., Wiechec, M., Nocun, A., Kaczmarek, P., Cnota, W., et al. (2020). Polish society of gynecology and obstetrics statement on safety measures and performance of ultrasound examinations in obstetrics and gynecology during the SARS-CoV-2 pandemic. *Ginekologia Polska, 91*(4), 231-234.
- Brough, P. (2004). Comparing the influence of traumatic and organisational stressors on the psychological health of police, fire, and ambulance officers. *International Journal of Stress Management, 11*, 227-244.
- Budhathoki, S. S., Singh, S. B., Sagtani, R. A., Niraula, S. R., & Pokharel, P. K. (2014). Awareness of occupational hazards and use of safety measures among welders: a cross-sectional study from Eastern Nepal. *BMJ Open, 4*(6), e004646. https://doi.org/10.1136/bmjopen-2013-004646
- Classen, D. C., Holmgren, A. J., Newmark, L. P., Seger, D., Danforth, M., Bates, D. W., et al. (2020). National trends in the safety performance of electronic health record systems from 2009 to 2018. *JAMA Network Open, 3*(5), e205547.
- Dunmade, E. O., Kadiri, I. B., Akindele, I. T., & Ishola, A. A. (2019). Evaluating the impact of occupational health and safety measures on work performance in Kam Wire Industry, Ilorin, Nigeria. *Fountain University Osogbo Journal of Management, 4*(3), 61-71.
- Eskandari, D., Jafari, M. J., Mehrabi, Y., Kian, M. P., Charkhand, H., & Mirghotbi, M. (2017). A qualitative study on organisational factors affecting occupational accidents. *Iranian Journal of Public Health, 46*(3), 380-388.
- Feng, X., Acord, L., Cheng, Y.-J., Zeng, J., & Song, J. P. (2011). The relationship between management safety commitment and patient safety culture. *International Nursing Review, 58*(2), 249-254.
- Fruhen, L. S., Griffin, M. A., & Andrei, D. M. (2019). Erratum to what does safety commitment mean to leaders? A multi-method investigation. *Journal of Safety Research, 70*, 169-180.
- Grawitch, M. J., Trares, S., & Kohler, J. M. (2007). Healthy workplace practices and employee outcomes. *International Journal of Stress Management, 14*(3), 275-293. https://doi.org/10.1037/1072-5245.14.3.275
- Hämäläinen, P., Saarela, K. L., & Takala, J. (2009). Global trend according to estimated number of occupational accidents and fatal work-related diseases at region and country level. *Journal of Safety Research, 40*(2), 125-139.

https://doi.org/10.1016/j.jsr.2008.12.010

- Harrison, J. (2019). Organisational factors: Impacting on health for ambulance personnel. *International Journal of Emergency Services, 8*, 134-146.
- Health Safety Executive. (2008). The Department of Labour. Model for Business, Excellence. Government Printers: United Kingdom.
- Hu, X., Casey, T., & Griffin, M. (2020). You can have your cake and eat it too: Embracing paradox of safety as source of progress in safety science. *Safety Science, 130*, 104824.
- Jackson, S. E., Schuler, R. S., & Werner, S. (2009). Managing Human Resources (11th ed.). New York: South-Western, Cengage Learning, 668.
- Jonathan, G. K., & Mbogo, R. W. (2016). Maintaining health and safety at workplace: Employee and employer's role in ensuring a safe working environment. *Journal of Education and Practice, 7*(29), 1-7.
- Kaynak, R., Toklu, A. T., Elci, M., & Toklu, I. M. (2016). Effects of occupational health and safety practices on organisational commitment, work alienation, and job performance: Using the PLS-SEM Approach. *International Journal of Business and Management, 11*(5), 146-166.
- Kerr, W. A. (1950). Accident proneness of factory departments. *Journal of Applied Psychology, 34*, 167-170.
- Kim, H., & Scott, C. (2019). Change communication and the use of anonymous social media at work: Implications for employee engagement. *Corporate Communications: An International Journal*.
- Kirschenbaum, A., Oigenblick, L., & Goldberg, A. I. (2000). Well-being, work environment, and work accidents. *Social Science & Medicine, 50*(5), 631-639.
- Ladewski, B. J., & Al-Bayati, A. J. (2019). Quality and safety management practices: The theory of quality management approach. *Journal of Safety Research, 69*, 193-200.
- Lee, D. (2018). The effect of safety management and sustainable activities on sustainable performance: Focusing on suppliers. *Sustainability, 10*(12), 4796.
- Mazzetti, G., Valente, E., Guglielmi, D., & Vignoli, M. (2020). Safety does not happen by accident: A longitudinal investigation on the antecedents of safety behavior. *International Journal of Environmental Research and Public Health, 17*(12), 4332.
- Mwangi, J. W., & Waiganjo, E. (2017). Influence of occupational health and safety on employees' performance in the flower industry in Kenya: A case study of Penta flowers limited, Thika Sub-County. *International Journal of Business and Social Science, 4*(3), 191-208.
- Nordlof, H., Wiitavaara, B., Hogberg, H., & Westerling, R. (2017). A cross-sectional study of factors influencing occupational health and safety management practices in Swedish. *Safety Science, 95*, 92-103.
- Oladejo, J. (2020). An investigation in the factors affecting the implementation of health and safety management practices by contractors in Nigeria. An unpublished thesis, University of the West of England. Retrieved from https://uwe.repository.worktribe.com/output/4165690
- Oppong, S. (2011). *Health & safety: Theory and practice in the oil and gas sector*. Saarbrücken, Germany: VDM Publishing House Ltd.
- Othman, A. A. E. (2012). A study of the causes and effect of contractors' non-compliance with the health and safety

regulations in the South African construction industry. *Architectural Engineering and Design Management, 8*, 180-191.

- OSHA. (2004).
- Paul, A. K., & Anantharaman, R. N. (2003). Impact of people management practices on organisational performance: Analysis of a causal model. *International Journal of Human Resource Management, 4*(7), 1246-1266.
- Petersen, D. (1996). *Analyzing safety system effectiveness* (3rd ed.). New York: Van Nostrand Reinhold.
- Pfeiffer, J. (1998). *The human equation*. Boston: Harvard Business School Press.
- Purba, A., & Demou, E. (2019). The relationship between organisational stressors and mental wellbeing within police officers: A systematic review. *BMC Public Health, 19*, 1286.
- Tulchinsky, T. H., & Varavikova, E. A. (2014). Environmental and occupational health. In*The New Public Health* (pp. 471-533). https://doi.org/10.1016/B978-0-12-415766-8.00009-4
- Ünal, O., Akbolat, M., Amarat, M., & Tilkilioğlu, S. (2018). The role of the human factor in occupational safety and health performance. *International Journal of Occupational Safety and Ergonomics: JOSE, 27*(2), 1-17. https://doi.org/10.1080/10803548.2018.1554932
- Von Glinow, M. A., Drost, E., & Teagarden, M. B. (2002). Converging on IHRM best practices: Lessons learned from a globally distributed consortium on theory and practice. *Human Resource Management, 41*(1), 123-140.
- Vogt, J., Leonhardt, J., Koper, B., & Pennig, S. (2010). Human factors in safety and business management. *Ergonomics, 53*(2), 149-163. https://doi.org/10.1080/00140130903248801