

**A STUDY OF THE EFFECT OF OCCUPATIONAL  
HEALTH AND SAFETY AND WORK ENVIRONMENT  
ON EMPLOYEES' JOB PERFORMANCE  
IN A MANUFACTURING ORGANISATION OF LAGOS  
METROPOLIS, LAGOS, NIGERIA**

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**How to cite:** OGinni, B.O., AJIBOLA, K.S., & OLANIYAN, T.S. (2022).  
“A Study of the Effects of Occupational Health and Safety and Work  
Environment on Employees' Job Performance in a Manufacturing Organisation  
of Lagos Metropolis, Lagos, Nigeria.” *Annals of Spiru Haret University.  
Economic Series*, 22(1), 183-193, doi: <https://doi.org/10.26458/22100>

**Abstract**

*The study examined the effect of occupational health and safety and work environment on the employees' job performance using manufacturing organisation in Lagos Metropolis as the unit of analysis. aside this, the study identified the relationship among occupational health and safety, work environment and employees' job performance and singles out the dominant factor that contributed more in terms of potency to factors affecting employees' job performance. Research questionnaire was the instrument used in data collection which was administered to 189 respondents while convenience and random sampling techniques were applied. The result shows that each of the variables i.e. occupational health and safety and work environment are significant at  $p < 0.05$  where  $F_c = 39.494 > F_i = 2.821$  which was further supported by the result  $R^2$  of 73% responsible for what happens in employees' job performance and work environment with the higher value of  $\beta = 0.308$  was found to contribute more as a factor to explain variables with potency to affect employees' job performance. It*

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*was concluded that high premium should be placed on the work environment and occupational health and safety of employees and recommended that there is need to create a family-like atmosphere to work environment friendly and safe.*

**Keywords:** *human resource; health and safety; work environment; job performance; Factory Acts; ILO.*

**JEL Classification:** J28, K32, L16

### 1. Introduction

Every business organisation is made up of people known as human resource who are expected to bring their skills and experience to fore in order to ensure high performance in the level of business activities such that the organisation will attain its primary objective of profit maximization. Increasing level of performance in the organisation will translate to increase in job performance on the part of the employees i.e., a situation where everyone will carry out various tasks assigned based on competence efficiently and effectively and this performance is a function of many variables (Akbar, 2013). Organisation can increase the level of their organisational output where there is industrial peace and harmony, good relationship between the management and employees, friendly or family - like atmosphere, conducive environment that is safe for everyone and where any of these are inadequate, it may serve as obstacle and inhibit the level of job performance.

It is true that job performance is affected by many variables, however, those that usually come to mind were the feelings of safety in the course of performing master's job and the atmosphere of enabling work environment. It is the dream of every employee to feel secured, comfortable and anxiety free in the workplace in order to display high level of confidence and commitment that will make them to put in their best efforts towards executing expected roles which invariably will lead to the attainment of overall objective of the organisation and where there are health and safety measures or programmes, it has effect on the feelings of employees towards their job and the environment of such organisation is usually beclouded with anxiety (Shadare, Anyim, & Tunde-Ojo, 2019). This explains why the desire of all the parties in the industrial world to ensure overall well-being of employees in workplace through adequate provision of health and safety measures or programmes is no coincidence rather a key element to achieving sustainable decent work conditions and strong preventive culture in the labour environment.

The Federal Government of Nigeria recognised the significance of employees' health and safety in the world of work and promulgated a decree to support this which was known as Factory Acts of 1987. The Acts has 12 subheadings as the major provisions and has undergone two major amendments in 2004 and 2010 in order to make the Acts better. By the virtue of the Acts, every work organisation in the manufacturing sector is expected to put in place adequate health and safety measures to forestall any form of occupational accidents. For example, health rules in work environment is not limited to but include cleanliness, ventilation and drainage as well as lighting, overcrowding and provision of sanitary conveniences. It therefore becomes a concern in view of the prevailing level of safety measures found in manufacturing organisations as manifested in the physical environment where employees will perform their assigned tasks. To this end, the study seeks to examine the effect of occupational health and safety and work environment on the employees' job performance, aside this, to identify dominant variable that will have more potent effect on employees' job performance (Chidi & Ayinla, 2019).

## 2. Conceptual Review

The review of the concepts was based on the independent and dependent variables involved in the study to include occupational health and safety, work environment and employees' job performance.

### 2.1 Occupational Health and Safety

This is described to mean the science of the anticipation, recognition, evaluation and control of hazards arising in or from the workplace that could impair the health and well-being of workers, taking into account the possible impact on the surrounding communities and the general environment (Alli, 2008). It is all about safety in the workplace and the scope has evolved continuously in response to the dictate of social, political, technological and economic changes since inception of organisation dated back to Industrial Revolution era. The concern for occupational health and safety in the workplace has been at international, national and local levels, this explain why International Labour Organisation (ILO) has shown tremendous concern and support to ensure that organisations are safe for the conduct of business.

Many of the ILO Conventions had addressed the issue of safety in workplace and the main purposes of the ILO Convention are to ensure that higher priority is given to occupational health and safety in national agendas for labour environment

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and to foster political commitments in tripartite context for the improvement of occupational safety and health. The content of the Convention is promotional rather than prescriptive and it is based on two fundamental concepts i.e., the development and maintenance of a preventive health and safety culture and the application at the national level, a system management approach to occupational health and safety. Nigeria as a member of ILO and signatory to many of its conventions, promulgated an Act known as Factory Acts of 1987 although before 1987, there had been many occupational health and safety regulations, but the Factory Acts of 1987 represented watershed in the history of occupational health and safety regulation in Nigeria (Shadare et al, 2019).

The responsibility of occupational health and safety does not solely reside with the government, employers and employees have their own role to play. The responsibility of employers is to provide a safe and healthy working environment. That is employers should provide and maintain workplaces, machinery and equipment, and use work methods, which are as safe and without risk to health as is reasonably practicable. Also, ensure that chemical, physical and biological substances and agents under their control are without risk to health when appropriate measures of protection are taken, provide adequate supervision of work, the application and use of occupational health and safety measures. It is also part of the responsibilities of the employers to provide adequate personal protective clothing and equipment without cost to the worker. In a situation when hazards cannot be otherwise prevented or controlled, employer need to ensure that work organisation, particularly with respect to hours of work and rest breaks, does not adversely affect the health and safety of workers and where necessary to provide for measures to deal with emergencies and accidents. This including adequate first-aid arrangements while that of employees revolves around cooperation of workers within the enterprise which is vital for the prevention of occupational accidents and diseases.

In other words, employees should take reasonable care for their own safety and that of other persons who may be affected by their acts or omissions, comply with instructions given for their own health and safety, and that of others. Employees must take health and safety procedures seriously, use safety devices and protective equipment correctly and avoid rendering them inoperative, report promptly to their immediate supervisor if any situation which they have reason to believe could present a hazard and which they cannot themselves correct, report any accident or injury to health which arises in the course of or in connection with work (Alli, 2008; Chidi & Ayinla, 2019).

Empirical evidence abounds in confirmation of this fact. For example, a study on the effect of OSH (Occupational Health and Safety) and organizational culture on employee performance in Pamong Praja and Damkar Police Units South Bengkulu found occupational health and safety to have a significant influence on employee job performance (Bahari et al., 2022). In Ethiopian electric power corporation, another study was conducted on the effects of occupational health and safety strategies on the organizational performance. The study found occupational health and safety strategies have positive significant effect on organizational performance (Bitire & Chuma, 2022).

## 2.2 Work Environment

This is described as the physical environment where employees carry out any work assigned to them which is a collection of many situational factors that defines the corporate atmosphere. In the views of Adeogun and Okafor (2013) work environment is the element that comprise the setting in which employees work and impact workers' performance. It is said to have components made up of intrinsic and extrinsic elements such as but not limited to illumination, noise and vibration, temperature, humidity, and air quality, organisational politics and culture, architectural design, size, furnishings, layout and colour, peer relations, superior and subordinate relationship as well as leadership styles and communication. In essence, "a work environment is a place where employees carry out their activities, where it can bring positive and negative effects for employees to achieve their results" (Priarso et al., 2018). Therefore, a work environment may be realistic, investigative, artistic, social, enterprising or conventional and this explains why the understanding of individual personality and job compatibility is often necessary for employees' job performance.

Empirical studies have been carried out on work environment and employee job performance. For example, a study on the effect of transformational leadership style, work motivation, and work environment on employee performance that in mediation by job satisfaction variables in Pt. Gynura Consulindo, was conducted among 114 employees of PT Gynura Consulindo. The study was adopted descriptive research design. The data collected were analysed using Structural Equation Model Listrel version 8.8 software. The research found that work environment has positive and significant influence on employee job performance (Priarso et al., 2018). Also, Wang, Zhang and Chun (2022) in another study titled "how does mobile workplace stress affect employee innovative behavior? The role

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of work–family conflict and employee engagement” confirmed that work environment is a predictor of employees’ job performance. The study was conducted among 426 married male employees in the software and information industries. The study reported that mobile workplace stress (form of work environment) have significant but negative effect on employee innovative behavior but had positive significant effect on employee engagement (Wang et al., 2022).

Sri (2018) investigated workload, work environment and employee performance among 40 employees of the housekeeping section of LORIN Sentul hotel Bogor. The study adopted descriptive research design. The research found that work environment had positive and significant impact on employee performance (Sri, 2018). Another study on the role of work environment on Bank employees’ performance reported that work environment partially has a significant effect on employees’ performance (Tjahjaningsih et al., 2019). The study used multiple regression analysis. Samples were drawn using proportionate sampling technique from the employees of PT Bank Negara Indonesia (Persero), Tbk branch office Diponegoro University The with 130 sample cut across different categories of staff from supervisor, security staff, customer service officer to teller (Tjahjaningsih et al., 2019).

Likewise, a study was carried out on the influence of transformational leadership and the work environment on employee performance: mediating role of discipline. The sample for the research was 116 civil servants in the Ministry of Villages, Disadvantaged Regions and Transmigration of the Republic of Indonesia (Kemendes- PDDT). The study used partial least square in analyzing the collected data. The study found that work environment has significant effect on employee job performance (Riyanto et al., 2021).

Other studies that have reported positive significant effect of work environment on employees’ job performance include the one conducted among the PT. Nesinak Industries’ 88 employees who works in the production department. The company deals with automotive and electronic spare parts made from rubber (Badrianto & Ekhsan, 2020). Another one was conducted in health sector. It was on the influence of leadership style and work motivation on employee performance. The study found that work environment influenced employee job performance significantly (Nasir et al., 2021). Similarly, another study on the influence of work environment and Competence on motivation and its impact on employee performance in Health sector showed that work environment have significant influence on the job performance of employees (Parashakti et al., 2020).

### 2.3 Employees' Job Performance

This has been described as the total expected value to the organization of the discrete behavioural episodes that an individual carries out over a specified time period (Motowidlo, 2003). It can then be deduced that performance is an aggregated property of multiple of discrete behaviours that occur over time and the property of behavior to which performance refers is its expected value to the organization. The implication is that job performance relates to how individuals perform in their job duties i.e. work achieved by a person in carrying out the tasks assigned to him based on his skills, experience, and sincerity as well as time (Putri, Triatmanto, & Setiyadi, 2018). Job performance was seen in another way by Campbell (1990) when it was described as a means to reach a goal or set of goals within a job, role, or organization but not the actual consequences of the acts performed within a job and affirms that it is not a single action but rather a complex activity. This explains why employees' job performance involves many factors such as quality, quantity and effectiveness of work as well as the behaviours shown by employees in the workplace. It is a supporting factor of organisational performance.

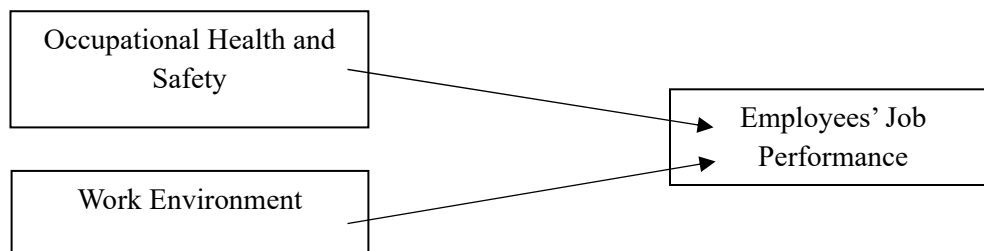


Fig. 1. Conceptual framework representing the variables and direction of the study

### 3. Methodology

The study was carried out in Lagos Metropolis using manufacturing organisations as the unit of analysis, adopted survey method in addition to secondary source of data collection and the sample size of 189 was obtained through Yamane's formula while convenience sampling was applied and the research instrument used was questionnaire. The questionnaire was designed along the variables of the study i.e. independent (Occupational Health and Safety and

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work environment) and dependent (employees' job performance) in line with Likert 5-point rater scales, subjected to validity test (Pearson product moment correlation) and reliability test (Cronbach's alpha) and the results were found to be adequate for the use of the study and linear regression was also used to analyse the data with the aid of SPSS software.

### 4. Results

The data collected were analyzed with the aid of SPSS software and the results were presented in Tables 1 and 2.

Table 1 has information on the outcome of the regression analysis showing the effect of the independent variables on the dependent variable. The value of  $F = 39.494$  calculated is greater than the value of  $F$  tabulated which is 2.821, it shows that each of the independent variables is significant at  $p < 0.05$ . Also, the  $t$  test shows that every independent variable significantly affects employees' job performance at  $p < 0.05$  where  $t$  calculated for all the variables is greater  $t$  tabulated which was 2.012. Coefficient Determination ( $R^2$ ) = 0.734 representing 73.4% shows high level of accountability to explain the variation of independent variable in dependent variable i.e. among all the factors affecting employees' job performance, occupational health and safety and work environment could be singled out as major predictors or factors to watch out for.

**Table 1. Summary of Linear Regression Analysis**

<i>Variables</i>	<i>Unstandardized Coefficients B</i>	<i>t</i>	<i>Sig</i>	<i>R<sup>2</sup></i>	<i>F</i>	<i>F-Sig.</i>
<i>Occupational Health and Safety</i>	0.242	2.302	0.026	0.734	39.494	0.000
<i>Work Environment</i>	0.286	2.311	0.026			

Since Table 1 showed that occupational health and safety and work environment  $r^2 = 0.734$  represent 73%, hence the need to know which of the two factors contribute more. The analysis in Table 2 was used to identify which of the independent variables has the dominant effect on the dependent variable and the decision rule was that the independent variable whose standardized coefficient value is the greatest has dominant effect on dependent variable. From this table, work environment is the independent variable with the greater standardized



coefficient value at 0.308 among the other independent variables. The implication is that the better the work environment, the better is employees' job performance and work hazards as well as accidents rate will also reduce.

**Table 2. Summary of Standardized Coefficients of all Independent Variables**

<i>Variables</i>	<i>Standardized Coefficients</i>
<i>Occupational Health and Safety</i>	0.297
<i>Work Environment</i>	0.308

Source: Field Study, 2021

## 5. Conclusion

The study seeks to examine the effect of occupational health and safety and work environment on the employees' job performance in Nigerian business environment and identify dominant variable that will have more potent effect on employees' job performance. It was found that there was relationship between the independent variables (occupational health and safety and work environment) and dependent variable (employees' job performance) to be positive wherein the better the occupational health and safety programmes and conduciveness of work environment the better is employees' job performance. It was also established that occupational health and safety and work environment played significant role among factors affecting employees' job performance while between the two factors, work environment was found to contribute more as a factor to explain variables with potency to affect employees' job performance. It was concluded that maximum attention should be placed in terms of priority to both occupational health and safety and work environment in order to remove major factors that can inhibits efficient and effective employees' job performance.

## 6. Recommendations

On the basis of the findings and conclusion of the study, the following recommendations were made to enhance employees' job performance through adequate occupational health and safety and work environment. Organisations should ensure that there is health insurance for the purpose of accident or death. It is also recommended that policy towards occupational health and safety should be

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implemented and at the same time ensure compliance. There is the need for individual personality and job compatibility assessment as made available by the environment. Furthermore, there is the need to create family-like atmosphere that will make work environment friendly and safe. Managers need to pay attention to the health of employees from time to time and be abreast employees with details of occupational health and safety put in place especially procedure in case of accident or emergency. Lastly, there is the need to ensure work environment meets minimum standard of expectation in the world of work by taking cognizant of all the components of work environment.

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