

Occupational Health and Safety Management Practice and Employee' Productivity of Lubricant Frims in Anambra State, Nigeria

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Abstract: *The study examined occupational health and safety management practices and employee' productivity of lubricant firms in Anambra State, Nigeria. The objectives were to examine the effect of occupational health and safety management practices on employee' productivity of lubricant firms in Anambra State. The study adopted survey research, data were generated from primary and secondary sources. The method for data collection was questionnaire which was administered randomly among the staff of the selected firms. The population of the study was 1220, The sample size of the study was two hundred and thirty-four (234). While one hundred and eighty-three (183) were retrieved. The hypotheses were tested using multiple regression analysis method at 0.05% level of significance. The findings of the study revealed that, Health and Safety training has significant positive effect on employee' productivity of lubricant firms in Anambra State ($t=2.136$, $p, 011$). Risk management has significant positive effect on employee' productivity of lubricant firms in Anambra State, ($t=3.292$, $p, 009$) Management commitment to safety has significant positive effect on employee' productivity of lubricant firms in Anambra State , ($t=4.505$, $p, 000$). The study concluded from its findings that occupational health and safety management practices have positive and significant effect on employee' productivity of lubricant firms in Anambra State. The study recommended frequent hazard trainings and unscheduled site visit by regulatory bodies to ensure that organizations comply with safety regulations. Stakeholders should also become intentional about reducing occupational hazards so that the image of the industry can be improved from one that is risky and hazardous to a sector that is decent and safe for its workers*

Keywords: *occupational health, safety management practices, lubricant firms, hazard trainings, Management commitment*

1.1 Introduction

The performance of an Employee depends on various factors such as training, experience, remuneration level, job security and safety which motivates and enhances the employee's capabilities (Raja, Furqan & Khan, 2011). Employees who have more on the job experience are likely to perform better in that there is development in their skills and competencies level resulting from on the job experience (Fakhar & Khan, 2008). The health and safety of employees has impact on the organization return on investment in that human resource capital of organization plays a vital role in the growth and development of such organization. Employees' productivity can be referred to as a process where the employees with the aid of the employer go through various training programs to enhance their skills and acquire enhanced knowledge and learning (Noe, Hollenbeck, Gerhart & Wright 2004). Consequently, employee productivity is a combined effort of both the employee and the employer to improve the existing skills and knowledge of the employee. Despite the advantages of training and skill development in employee productivity and organizational performance, training alone cannot sufficiently enhance the productivity level of

employees, there are other factors which needs to be considered such as occupational health and safety of the employees in the work environment (Obi-Anike & Ekwe, 2014).

Occupational safety and health is a cross-disciplinary area concerned with protecting the safety, health and welfare of people engaged in work or employment. The goal of all occupational safety and health programs is to foster a safe work environment (Frend & Kohn, 2016). Occupational health deals with ill-health arising from working conditions/or environment that slowly accumulate to lead to deterioration of the workers health. However occupational safety is concerned with prevention of accidents and minimizing the aspect of work environment that has the potential of causing immediate violent harm to employees (Armstrong, 2012). The health and safety of employees is a very significant issue to consider with relation to the attainment of organizational goals. Health and safety policies and programs are concerned with protecting employees and other people affected by an organization's activities, products and sernst hazards. With limited resources to help reduce occupational injuries, companies struggle with how to best focus these resources to achieve the greatest reduction in injuries for the optimal cost. Safety culture has been identified as a critical factor that sets the tone for importance of safety within an organization (O'Toole, 2012).

Occupational Health and Safety is an important issue for trade unions and should be given a prominent position in collective agreements and conditions of service. A healthy and safe environment is among the most valuable assets of workers, communities and countries. It also means that a healthy worker is an asset employer; therefore, the provision of a healthy and safe environment is one goal that must be jointly pursued by the union and employer. Workers in Nigeria at different sectors of the economy recently, have been subjected to accidents which range from minor to fatal, as some have lost their lives right in the line of duty, while some have lost vital organs, therefore rendered permanently incapacitated. The issue of safety and health at workplace which once occupied a major place in the programmes and plans of the employers are now treated with levity. One such case was the fire incident that razed West Africa Rubber Product Company Ikorodu, Lagos State in 2002 where many workers met their death at night because of the negligence of the Chinese owners of the company who locked the workers in the factory without provision for emergency exit. There are equally other unregistered companies using incorporation as cover, many of them have worse cases involving health and safety of their workers. Nigeria joined the rest of the world to mark, World Day for Safety and Health at work which is an international annual campaign, jointly agreed to by the International Labour Organization, ILO, and Social Partners to promote safe, healthy and decent work annually on the exact date.

Organization can be safe and enjoyable if employees follow the standardized procedures. It is regrettable that both employees and employers have demonstrated minimal commitment to reducing the level of accidents in the industry (Mohamed, 2018). Occupational safety is a process of ensuring that people stay safe and healthy in the workplace to increase workers capacity to perform (Mohamed, 2010). The health and safety of every employee in an organization is important if the organization is to continuously operate to meet its stated goals and objectives (Danso, 2011). A healthy worker is an able worker, and a safe worker is a focused worker. An unhealthy or unsafe environment affects an employee's ability, and motivation to work (Bernard, 2017). Ototo & Oboh (2018) assert that the health status of an individual worker is a predisposing factor of his/her full or partial commitment to job.

Successful safety and health management requires the commitment of the management and true actions. If the corporate management is not committed to improve the level of safety, no one will take care of the task. Commitment to the goal should be sincere because if the management does not genuinely believe that improving safety is profitable, they cannot allocate all the resources needed (Robbins, 2014). This relies on the cooperation of both employers and employees to ensure a 'self-generating effort' between 'those who create the risks and those who work with them'. It is therefore important for organizations to treat every employee's complaint seriously and to ensure that they feel safe (Robbins, 2014). The principles of safety thinking should be included in the everyday work of every member of the organization from the top management to the workers. Safety must not be a separate function or system but an integral part of everyday work (Hill and Smith, 2015).

The responsibility of every organization is to provide good working conditions and environment for employees devoid of risks, hazards, and diseases. Today, employee safety as a corporate social responsibility (CSR) has received little attention. With the increasing globalization and trade liberalization in most developing economies including Nigeria, there is a high rate of industrial accidents and large-scale absenteeism occasioned by ill-health which invariably affects performance. Some jobs are very hazardous and the law requires every employer of labor to ensure that the work-force is safe and that employees doing hazardous work are protected adequately. Recently, employee safety issues in the country seem worrying, as employees complain about lack of effective formulation and implementation of safety policies, programmes, and practices that protect their well-being. Besides these national challenges, most industries also fail in this regard. Many companies are still unaware of the economic implications of occupational safety. They often do not recognize the costs of accidents and ill-health and even if they are conscious of the fact that a poor working environment may result in costs for the company, they rarely measure them. Safety in the organization should to be everybody's concern. On the contrary, this is not the case in most organizations. Most firms cannot boast of effective safety management system and structure. They fail to realize that as part of their human resource management practices, there is need for management to ensure that personnel in the organization work in safe and healthy environment that will promote their optimum performance. They simply focus on issues of quality assurance, productivity, cost benefit, and continual improvement to the neglect of the key "competitive advantage and the most important asset" of their organizations: the human resources. Regrettably, health and safety of workers are compromised as indicated by several occupational health hazards, risk, and diseases in the country. Incidentally, most of the research works done on safety practices in other manufacturing industries so far are based on studies conducted outside Anambra state. Employee safety in Nigerian manufacturing industries particularly in south-East Nigeria remains largely unexamined due to lack of social and political will. This study becomes necessary, therefore, as any strategy adopted by an organization that does not address the issue of employee safety will be ineffective and inefficient. This study attempts to fill this paucity of information with respect to lubricant manufacturing firms in Anambra State. Therefore, the application of 'effective' strategies can lead to safer systems of lubricant companies and reduce incidence of injuries and work related diseases in organization.

1.2 Objectives of the Study

The broad objective of the study is to examine the effect of occupational health and safety management on workers' productivity: of lubricant firms in Anambra State. The specific objectives of the study are to:

- i. Assess the effect of health and safety training on employee's productivity of lubricant firms in Anambra State.
- ii. Determine the effect of risk management on employee' productivity of lubricant firms in Anambra State.
- iii. Investigate the degree to which management commitment to safety affect employee' productivity of lubricant firms in Anambra State.
- iv. Examine the effect of organizational hazard exposure on employee' productivity of lubricant firms in Anambra State?

1.3 Research Hypotheses

The following null hypotheses were formulated to guide the objectives of the study and strengthen the analysis

Ho₁: Health and Safety training has no significant positive effect on employee' productivity of lubricant firms in Anambra State.

Ho₂: Risk management has no significant positive effect on employee' productivity of lubricant firms in Anambra State.

Ho₃: Management commitment to safety has no significant positive effect on employee' productivity of lubricant firms in Anambra State.

Ho₄: Hazard exposure has no significant positive effect on employee' productivity of lubricant firms in Anambra State.

REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework

This work is anchored on expectancy theory, and Integral Safety Theory

Integral Safety Theory

The Integral safety theory is a relatively simple yet very powerful theory that aids the development of a balanced and effective safety management. It is a performance-oriented approach to safety management that gives organizations a sustainable competitive advantage in a global marketplace by establishing a safety and healthy working environment that is consistent with peak performance and that is improved continually forever (Thompson, 2010). It integrates all aspects of safety measures to achieve a safe working environment and improve employees productivity. It is widely acceptable because it involves all the members of an organization in establishing and maintaining a working environment that is safe and healthy and also promotes greater productivity (Thompson, 2010). The primary purpose of the theory is to provide excellence in safety through effective integration and implementation of safety measures. It follows the same sets of standards as total quality management(TQM) and provides a competitive advantage to the companies that implement

it, by establishing a safe and healthy working environment that leads to a continuous and sustainable improvement in organizational performance(Thompson, 2010).

2.2 Empirical Review

Adesola, Onwuegbuna and Abodunrin (2021) examines the impact of occupational safety and health regulation on labour productivity in Nigeria with particular focus to Slabmark Nigeria Limited. The overall objective of this study is to investigate the impact of Occupational Safety and Health Regulation on labour productivity in Nigeria. Specifically, the objectives of the study are to: examine the impact of Occupational Safety and Health Regulation on labour productivity, identify the challenges of labour productivity in an organization and suggest measures that can be employed by the organization to ensure that the occupational safety and health rights are protected. The study utilizes survey research design of ex post facto type with the use of questionnaire to collect data for the study. The data collected was analyzed using Frequency count, percentages, mean and standard deviation. The study finds out that, there is a high extent of impact of occupational safety in relations to labour productivity in Nigeria. The study also reveals that, there is a high extent of impact of health regulations in relations to labour productivity in Nigeria. It is also revealed in the study that, occupational health and safety really affects productivity if not properly implemented, and the study finds out that, there are some palliative measures that can be employed by the organization to ensure that occupational safety and health rights are protected. The study therefore recommends that, Government should establish a monitoring team that will visit these operational business organizations unannounced to evaluate their safety policies and measure as well as their levels of compliance

Buniya, Othman, Durdyev, Sunindijo, Ismail, & Kineber, (2021) examined Safety Program Elements in the Construction Industry: The Case of Iraq. Given that construction industries' unsafe conditions require increased efforts to improve safety performance to prevent and reduce accident rates. Safety performance in the Iraqi construction industry is notoriously poor. Therefore, the aim of this study is to identify the key elements of a safety program in the Iraqi construction industry. To verify and validate a list of safety program elements identified in the literature review, a mixed method approach was used by using interviews and questionnaire surveys. Final lists of 25 elements were then analyzed using exploratory factor analysis. The analysis found that these elements can be grouped into four interrelated dimensions: management commitment and employee involvement, worksite analysis, hazard prevention and control systems, and safety and health training. This study contributes to the body of knowledge on safety in the Iraqi construction sector, a research area which has not been adequately investigated previously. They also help decision-makers focus on key elements that are needed to start improving safety performance in this context.

Nwachukwu, Akpuh, Irimagha and Udeme (2020) investigated the impact of industrial health and safety on employee's performance. The study adopted a structured questionnaire to obtain data from 282 workers. Statistical package for social sciences (SPSS) version 23.0 was utilized for data analysis. The study made use of description analysis to analyze the demographic characteristics of the respondents while regression and Pearson correlation moment was used to analyze the hypotheses of the study. The result of the study indicates that health and safety practices, especially training have significant effect on employees' job performance. It

was concluded that employees' low performance can be attributed to both low health and safety practices and lack of personal protecting equipment (PPE) and management commitment to health and safety programs. The four independent measures of industrial health and safety as was used in the study were found to be influencing employee's performance. it was recommended among others that there should be constant health and safety training for both top , middle and low level staff . As this will equip the employees with health and safety culture, as no one is above accident. Onuorah, Ebele, & Cosmas, (2020) examine the relationship between management of work hazard and employee service delivery in Nigerian Breweries, Plc., Enugu Many companies have compromised with the safety of the workers in the working place. This study examined management of work hazard in organizations. The study adopted descriptive design. The population of the study is 474 workers and sample size of 217. Stratification sampling technique was used to select the respondents. . Data obtained from the copies of the questionnaire was analyzed using descriptive statistics, which involved the weighted mean. Pearson's Product-Moment Correlation Coefficient was adopted to establish the relationship between management work hazard programmes and employee performance. The study found out that occupational health surveillance gives the employees the ability to plan and be able to undertake work in an organized manner while identifying priorities. More so, health and safety committees ensure that employees usually put extra effort to complete an assignment on time. The study further recommended that Nigerian Breweries companies should ensure that they use occupational health surveillance so as to give the employees the ability to plan and be able to undertake work in an organized manner while identifying priorities. Nigerian Breweries companies should employ health and safety committees to ensure that employees usually put extra effort to complete an assignment on time

Eke and Tamunomiebi (2019) investigated safety management and job performance among employees in manufacturing firms in Rivers State. Three research questions were raised to guide the study, and nine hypotheses were formulated and was tested at 0.05 level of significance. The survey research design was adopted for the study. The population of the study was 504 staff of the 16 selected manufacturing industries in Rivers State. The Taro Yamen formular was used to obtain a sample size of 223 respondents (senior and junior staff), while the simple random sampling technique was adopted for the study. The data was collected and analyzed using the descriptive statistic of mean and standard deviation and inferential statistic of Pearson's product moment correlation to answer the research questions and to test the formulated hypotheses at 0.05 alpha level respectively. The following findings were made: there is a significant relationship between supervision and monitoring and work output among employees in manufacturing firms in Rivers State. Management commitment significantly relates with timely delivery among employees in manufacturing firms in Rivers State.

Khan, Ali, De Felice, & Petrillo (2019) Studied occupational health and safety in construction industry in Pakistan. It is worthy of note that occupational health and safety (OHS) is a business strategy to foster a safe and healthy work environment. Construction industries in developing countries like Pakistan are not properly focusing on the OHS because of the high cost of personal protective equipment, safety trainings and activities. The objective of this research paper is to identify the critical hazards, its causes and consequences and to prioritize the most critical and harmful criteria and alternatives. For this purpose, a method called Modified-Safety Improve Risk Assessment (Modified-SIRA) was used. Within the Modified-SIRA, the criteria and alternatives are prioritized based on Risk Priority Number and MCDM methodology called Fuzzy-TOPSIS

(Technique for Order Preference by Similarity to Ideal Solution), respectively. The results of RPN shows that most of the accidents in CI of Pakistan occurs due to the deficiency of PPEs followed by Electrocution due to electrical equipment, improper way of using the available PPE and falling of personnel from elevated platforms. Similarly, the results of Fuzzy-TOPSIS shows that chemical and fire hazards are the most responsible for the accidents in CI of Pakistan.

Okpe and Makinde (2019) impact of occupational health and safety standards on productivity of employees. The standards operational procedure at workplace to enlighten organizational workers the duty of care of the employers to them while they carry out an assigned job, the paper will also cover the identification of health risk and safety risk and the required preventive controls to reduce risk to as low as reasonably practicable in the workplace, safe work environment and practices are major factors to be considered before accepting job offers. The research was carried out at Olam rice factory at Nasarawa state and Lake rice factory at Kebi state in Nigeria. The research reveals the selected organizations has a working occupational health and safety practices but has an average management commitment to the safe work practices of employees. The data was collected via questionnaire using a four Likert scale procedures for analysis and descriptive survey method. This study is majorly concerned with the impact of occupational health and safety on the productivity of employees.

Umugwaneza, Irechukwu and Mugabe (2019) established the effects of workplace safety and health practices on the employees' commitment and performance in Steel manufacturing companies in Rwanda. The target population of this study was 533 people, which comprised of Managers, Supervisors and employees. A simple random sampling technique was used to select a sample size of 229 respondents from the target population. The data was collected using questionnaires, interview guide and personal observation. The Statistical Package for Social Science (SPSS) software, version 21.0, was used to process data while descriptive statistics such as the means, modes, standard deviation, variances and inferential statistics were used to analyze the data. The findings of the study indicate that most workers are aware of the dangers of occupational health and safety in the workplace. Also the study found that although employees are aware of the occupational health and safety concerns they neglect to put on the Personal Protective Equipments saying that it is too hot. The study concludes that occupational health and safety significantly affects employee commitment and performance. This study recommends that management should insure the workers and provide them with personal protective equipments to minimize workplace injuries and accident. The study also recommends that management provide regular education and training on occupational health and safety concerns to prevent workplace injuries, hence,

METHODOLOGY

3.1: Research Design

The research design that was adopted in this study was the survey design, Personal observation, interview and questionnaires were used in this study to seek clarifications and convenience on the part of the respondent given schedules.

3.2: Sources of Data

The data that were used for this study were obtained from different sources. This ranged from questionnaire, and library search. However, field study involves use of questionnaire were applied in obtaining, reinforcing and crosschecking obtained data for this report. The data generated for the study comprises of secondary (desk survey) and primary sources (field survey). Primary data are those obtained directly from the originators or main source. The aim of collecting them is to obtain first hand information about the organization being studied and their activities. The bulk of the primary data were obtained through questionnaires designed via use of information generated from secondary survey (desk survey) after taking due cognizance of the purpose and objectives of the study.

3.3: Population of the Study.

The population of this study was drawn from the workers in the selected lubricant firms in Anambra state.

Table 3.1: Population Distribution of the selected lubricant firms

SNo	Names of Manufacturing Firms	Location	Number of Employees
1	A-Z OIL	Nnewi	270
2	Seahorse oil	Ozubulu	85
3	Jezco oil	Nnewi	103
4	Whiz oil	Onitsha	290
5	Chiben oil	Onitsha	97
6	Ibeto oil	Nnewi	250
7	Visa oil	Nnewi	125
	Total Population		1220

Source: online or internet source

3.4: Determination of Sample Size.

The sample size for this study was determined using the Borg & Gall formula of (1973). Statistically, the Borg & Gall (1973) formula for sample size is given by

$$n = \frac{(Z_x)^2(e) [N]}{1 + (Z_x)^2(e)}$$

$(Z_x)^2$ = Confidence level at 0.05

e = Error margin (0.05)

N = Population of Interest = 1220

X = Significance Level

3.5: Sample Size and Sampling Technique

Given the nature of this study, it will be difficult to cover the entire population of (1220), so a fair representative sample of the population therefore was imperative.. Accordingly, the sample size for the study was determined by using the Borg & Gall (1973) formula for calculating sample size as follows
 $n = (1.960)^2 (0.05) [1220]$

$$n = (3.8461) (61)$$

$$= 234.6121 \implies 234$$

$$n = 234$$

Sampling Technique

The research adopted stratified sampling the stratified random sampling permitted each of the different respondents in all the different states to be selected without bias.

3.6: Method of Data Analysis.

In carrying out this study, the researcher made use of descriptive statistics such as frequency counts and simple percentage was used to analyze bio – data of the respondents and the four research questions. All analyses were done through the application of Statistical Package for Social Science (SPSS 23 windows)

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

4.1 Distribution and return of questionnaire

Table 4.1.1 Analysis of response pattern

Item	Questionnaire	Percentage (%)
Total number of copies of questionnaire administered	234	100
Number of copies of questionnaire retrieved	209	96.6
Number of copies of questionnaire not retrieved	25	3.4
Number of copies of questionnaire suitable for analysis	183	92.9

Source: computed from field survey data, 2023

The response rate for this study was 96.6 % as shown in Table 4.1.1 by the total number of questionnaire administered and recovered from the field exercise. Two hundred and thirty-four (234) copies of a single questionnaire were administered to respondents, out of which two hundred and nine (209) representing about Ninety Six percent (96.6%) were retrieved while twenty-five

(25) were not returned. After assessing the retrieved questionnaire through data preparation, twenty (26) were rejected due to acts such as multiple ticking, blank responses, half-way ticking etc. Hence, only one hundred and eighty-three (183) copies of the questionnaire were usable to achieve the study objectives and testing hypotheses.

4.1 Demographic characteristics of Respondents

4.1.1 Gender

		Frequency	Valid Percent	Cumulative Percent
Valid	male	63	34.4	34.4
	female	120	65.6	100.0
	Total	183	100.0	

Source: SPSS Version 23, 2023

The above table reveals that the sixty-three (63) of the respondents which represents 34.4% were male respondents, while one hundred and twenty (120) respondents which represent 65.6% were female respondents. By implication, female respondents were more than male respondents by 31.2% in our selected population sample for this study. The implication of this is to enable us to know the number of female and male that successfully returned their questionnaire.

4.1.2 status

		Frequency	Valid Percent	Cumulative Percent
Valid	Single	63	34.4	34.4
	Married	52	28.4	62.8
	Widowed	13	7.1	69.9
	Divorced	23	12.6	82.5
	Separated	32	17.5	100.0
	Total	183	100.0	

Source: SPSS Version 23, 2023

In the table above, out of the two hundred (200) respondents, sixty-three (63) of the respondents are single. While fifty-two (52) respondents which represent 28.4 percent were married. Thirteen (13) of the respondents which represents 7.1 are widowed. It is therefore glaring that the majority of the respondents are married as at the time of this study. Again, twenty-three (23) respondents which represent 12.6 percent were divorced. Lastly, thirty-two (32) respondents which represent 17.5 percent were separated. Thus, marital status table help us to know the number of single, married, and divorced respondents that answered the distributed questionnaire.

4.1.3 level of education

		Frequency	Valid Percent	Cumulative Percent
Valid	OND	14	7.7	7.7
	HND/BSC	66	36.1	43.7
	MSC	96	52.5	96.2
	OTHERS	7	3.8	100.0
	Total	183	100.0	

Source: SPSS Version 23, 2023

In the table above, out of the two hundred (200) respondents, fourteen (14) of the respondents are OND holders. While sixty-six (66) respondents which represent 36.1 percent are HND/BSC holders. Ninety-six respondents (96) which represent 52.5 are MSC holders, while seven (7) which represents 3.8 are PhD holders.

4.1.4 Age

	Frequency	Valid Percent	Cumulative Percent
Valid 20-30	111	60.7	60.7
31-40	53	29.0	89.6
41-50	10	5.5	95.1
51-60	9	4.9	100.0
Total	183	100.0	

Source: SPSS Version 23, 2023

The table above shows that respondents whose age bracket falls between 20-30 yrs were one hundred and eleven (111) which represent 60.7 percent. This is followed by those with age bracket of 31-40 years with fifty-three (53) which represents 29%. Also those within age bracket of 41-50yrs were ten (10) which represents 5.5%. Lastly, those with age bracket of 51-60 years with nine (9) which represents 4.9%. The implication of this age distribution is to enable us to check if the questionnaire was directed to the right age group.

4.2 Multiple Regression Analysis

Multiple regression result was employed to test the effect of independent or explanatory variables on the dependent variables. The result of the multiple regression analysis is presented in the tables below.

Table 4.2.1 Summary of the Regression Result

The result of the multiple regressions formulated in chapter three is presented in the tables below.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Durbin-Watson	
					R Square Change	F Change	df1	df2		Sig. F Change
1	.446 ^a	.699	.681	.45074	.199	11.054	4	178	.000	1.633

a. Predictors: (Constant), HXP, RIM, MGC, HST
 b. Dependent Variable: WPD

Table 4.3.1 shows that R² co-efficient of determination which measures the strength of the effect of independent variables on the dependent variable has the value of 0.69. This implies that 69% of the variation in safety management on workers’ productivity is explained by variations in recognition for Health and Safety Training, Risk Management, Management Commitment and Hazard Exposure. This was supported by adjusted R² of 0.681

Test for autocorrelation: This is used to test whether errors corresponding to different observations are uncorrelated. If the value of the durbin-watson from the regression result is close to 2 no

autocorrelation in that regression result, but if it deviates significantly then there is autocorrelation. The Durbin-Watson statistic (D.W) of 2 reveals no autocorrelation in the model. Hence, the result is good for business analysis because the Durbin Watson result is 1.633 which indicates that the study is free from the problems of autocorrelation.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.983	4	2.246	11.054	.000 ^b
	Residual	36.164	178	.203		
	Total	45.148	182			

a. Dependent Variable: WPD

b. Predictors: (Constant), HXP, RIM, MGC, HST

The f-statistics value of 48.342 in table 4.3.2 with f-statistics probability of 0.000 shows that the independent variables have significant effect on dependent variable such as recognition for Health and Safety Training, Risk Management, Management Commitment and Hazard Exposure can collectively explain the variations in safety management on workers’ productivity.

Tables 4.3.2 Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.876	.135		6.493	.000	.610	1.142
	HST	.069	.061	.117	2.136	.011	-.051	.189
	RIM	.034	.118	.033	3.292	.009	-.198	.266
	MGC	.163	.036	.355	4.505	.000	.091	.234
	HXP	.031	.029	.073	1.071	.286	-.089	.026

a. Dependent Variable: WPD

A’p priori Criteria: This is determined by the existing business theories; it also indicates the signs and magnitude of the business parameter under review. In table 4.3.2 above, we found out that health and safety training has a positive sign given its value as .069; this implies that a unit increase in health and safety training increases the workers’ productivity by 69%, this conform to the a’ priori expectation. Risk management has a positive sign given its value as .034; this implies that a unit increase in health and safety training increases the workers’ productivity by 34%, this conform to the a’ priori expectation. Management committee has a positive sign given its value as .163; this implies that a unit increase in management committee increases the workers’ productivity by 16%, this conform to theoretical expectation. Hazard exposure has a positive sign given its value as .31; this implies that a unit increase in Hazard exposure increases the workers’ productivity by 31%, this conform to theoretical expectation.

T- Statistics: The t-test is used to measure the individual statistical significance of the explanatory parameters in the model. From table Coefficients above health and safety training is 2.136, this is statistically significant, this suggest that it contribute significantly to workers’ productivity. Risk management is 3.292 this is statistically significant, this suggest that it contribute significantly to workers’ productivity at 5% level of significant. Management committee is 4.505 this is

statistically significant, this suggest that it contribute significantly to workers' productivity at 5% level of significant. Hazard exposure is 1.071 this is statistically insignificant, this suggest that it contribute significantly to workers' productivity at 5% level of significant.

4.3 Test of Hypotheses

Here, the four hypotheses formulated in chapter one were tested using t-statistics and significance value of the parameter variables in the regression result. The essence of this is to ascertain how significant the effect of individual independent or explanatory variables on the dependent variables.

Test of Hypothesis One

Ho₁: Health and Safety training has no significant positive effect on employees' productivity of lubricant firms in Anambra State.

Health and Safety training has a t-statistics of 2.136 and a probability value of 0.011 which is statistically significant. Therefore, we accept the alternative hypothesis and reject the null hypotheses which state Health and Safety training has significant positive effect on employee' productivity of lubricant firms in Anambra State

Test of Hypothesis Two

Ho₂: Risk management has no significant positive effect on employee' productivity of lubricant firms in Anambra State.

In testing this hypothesis, the t-statistics and probability value in table above is used. Risk management variables have a t-statistics of 3.292 and a probability value of 0.009 which is statistically significant. Therefore, we reject the null hypothesis and accept the alternative hypotheses which state that Risk management has significant positive effect on employee' productivity of lubricant firms in Anambra State

Test of Hypothesis Three

Ho₃: Management commitment to safety has no significant positive effect on employee' productivity of lubricant firms in Anambra State.

Management commitment to safety has a t-statistics of 4.505 and a probability value of 0.000 which is statistically significant. Therefore, we reject the null hypothesis and accept the alternative hypotheses which state that Management commitment to safety has significant positive effect on employee' productivity of lubricant firms in Anambra State

Test of Hypothesis Four

Ho₄: Hazard exposure has no significant positive effect on employee' productivity of lubricant firms in Anambra State.

Hazard exposure has a t-statistics of 1.071 and a probability value of 0.286 which is statistically significant. Therefore, we reject the null hypothesis and accept the alternative hypotheses and conclude that Hazard exposure has no significant positive effect on employees' productivity of lubricant firms in Anambra State.

CONCLUSION AND RECOMMENDATION

5. 2 Conclusion

This research work examined the effect of occupational health and safety management on workers' productivity: A study of lubricant firms in Anambra State., Nigeria Compliance with the statutory occupational health and safety regulations should be a priority for private and public organizations. The consequences of non-compliance have far-reaching implications for organizations as workers' health and safety pose grave risks when measured in human and financial terms. It is imperative; therefore for public and private sector employer' to adhere to the legislation on OHS while continuously improving the working conditions and within changing work environments. Globally, employee well-being enhances loyalty, commitment engagement and performance. There is need therefore, for employers to adopt robust OHS systems and measures that protect and promote employee wellbeing and implement preventative programmes. Compliance with the statutory occupational health and safety regulations should be a priority for private and public organizations. The consequences of non-compliance have far-reaching implications for organizations as workers' health and safety pose grave risks when measured in human and financial terms. It is imperative; therefore for public and private sector employer's to adhere to the legislation on OHS while continuously improving the working conditions and within changing work environments. Globally, employee well-being enhances loyalty, commitment engagement and performance. There is need therefore, for employers to adopt robust OHS systems and measures that protect and promote employee wellbeing and implement preventative programmes.

5.3 Recommendations

- 1) Organizations should have structured processes that identify hazards, assess the hazards and control the risk.
- 2) The study recommends frequent hazard trainings and unscheduled site visit by regulatory bodies to ensure that organizations comply with safety regulations. Stakeholders should also become intentional about reducing occupational hazards so that the image of the industry can be improved from one that is risky and hazardous to a sector that is decent and safe for its workers.
- 3) Potentially hazardous machinery should be routinely inspected to ensure safety measures are in place and working properly. Tools should be properly chosen and suitably verified before use. Workplace should be brightly lit and extreme temperatures avoided, as well as suitable clothing for assignment tasks provided.
- 4) Adequate public enlightenment through the social media, electronic and other means by which the automobile mechanics can be reached with emphasis safe on work practices and use of personal protective equipment, compliance to occupational health and safety rules to avoid loss of lives, injuries and other hazards and risks associated with the occupation of automobile mechanics.

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