

EFFECTS OF INDUSTRIAL SAFETY AND HEALTH ON EMPLOYEES' JOB PERFORMANCE IN SELECTED CEMENT COMPANIES IN CROSS RIVER STATE, NIGERIA.

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ABSTRACT: *This study investigates the effects of industrial safety and health on employees' job performance in selected companies which include UNICEM, Dangote Plc. The study revolves around industrial safety/health strategies and productivity, together with relationships among employees, customers and management and how it affects turnover. To this end, a survey research design was adopted and a sample size of 100 staff was randomly selected for the study. The Pearson Moment correlation coefficient was used for the hypotheses tests. The result of the tests revealed that there is strategies and employee job performance. It recommended that employers should ensure adequate industrial safety/health strategies management in order to protect the lives of its employees at work place thereby reducing employee turnover and promoting staff performance.*

KEYWORDS: Safety, Health Strategies, Turnover, Employee Performance

INTRODUCTION

The health and safety (H & S) 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 services against 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 (OToole, 2002).

Although the benefits of effective H & S management have been well documented (Pollitt, 2011), some organizations especially those in developing countries like Nigeria still aim at maintaining or increasing productivity and profitability at the expense of employee health and safety thereby reducing employee job performance. With increasing industrialization and its consequent increase in industrial accidents and exposure to dangerous chemicals with their accompanying health implications for employees and others, the issue of health and safety management has become more pressing than ever.

International Labour Organization (ILO, 2012) reported that, everyday, 6,300 people die as a result of occupational accidents of work-related diseases - more than 2.3 million deaths per year, 317 million accidents occur on the job annually; many of these resulting in extended absences from work. The human cost of this daily adversity is enormous and the economic burden of poor occupational safety and health practices is estimated at 4 percent of global Gross Domestic Product each year. "Most of these deaths and injuries occur particularly in developing countries where a large part of the population is engaged in hazardous activities

taking severe toll on these economics. It is on this backdrop, that the paper attempts to investigate the effect of industrial safety/health strategies on job performance of employees in terms of productivity, employee/customer relationship, subordinate/management relationship and turnover in selected manufacturing cement companies in Cross River State, Nigeria.

Research hypotheses

The following research hypotheses were formulated to achieve the objectives of the study,

- i) There is no significant relationship between industrial safety and employees' job performance in terms of productivity, employee/ customer relationship, subordinate/management relationship and turnover,
- ii) There is no significant relationship between industrial health and employees job performance in terms of productivity, employee/customer relationship, subordinate/management relationship and turnover.
- iii) There is no significant relationship between industrial safety/health and employees job performance in terms of productivity, employee/customer relationship subordinate/management relationship and turnover.

LITERATURE REVIEW

Research presented in the Health and Safety Executive (2004) in 19 case study organizations established that the tangible benefits from health and safety management include higher productivity, lower absenteeism, lower employee turnover, avoiding the cost litigation, meeting clients demands and improves^ staff morale and employee relations. Empirical studies conducted by Rosekind (2005), Goetzel et al (2007), and Pronovost et al (2009) all found employee safety and security at work to be directly related to organizational performance. Waring (1996) observed that "risk control implementation would be difficult if not impossible to achieve without appropriate monitoring of progress and outcomes". A research work carried out by Prof. Rhona Flin of Aberdeen University, pin-pointed leadership and managerial resilience as key drivers of health and safety performance. The author noted that the key to the success of any health and safety management system rests on management's driver towards making safety a "lived" value throughout the organization rather than one that was simply talked about (cited in Pollitt 2011).

Agbola (2012) conducted a study on "impact of health and safety management on employee safety at the Ghana ports and harbor authority". The purpose of this study was to examine the Safety and Health Management Systems (SHMS) implemented by the GPHA, assess the effectiveness of these measures in reducing accidents and death; and evaluate impact of accidents and work-related illnesses on then employee safety at work and performance. The results reveal an organization fraught with poor health and safety management practices, poor training in safety know-how, lack of information on dangerous chemicals and hazardous materials, lack of monitoring and enforcement of safety rules, unavailability of essential safety equipments, with adverse effects on employees and the organizational performance. He further recommended that, GPHA must increase education and create awareness of the importance of health and safety; ensure collection and storage of data for effective monitoring and evaluation of safety performance.

Another research carried out by Wumoo et al. (2013), to examine the impact of health and safety policies on employees performance in the Ghana's timber industry and a case study approach was adopted for the study. The main data collection instruments used were interviews and questionnaires as well as statistical tools such as Pearson correlation was adopted to assess the relationship between investment in health and safety and employees performance. The data collected with these instruments as well as the calculated $r = 0.42$ showed that health and safety measures put up by the company positively correlates with employees' performance despite that the correlation is weak. There is also inverse relationship between reducing the number of accidents and injuries through health and safety promotions and employees performance. From the findings, it was concluded that organizations need to pay much attention to their health and safety measures since apart from the fact that in other jurisdictions it is backed by law and is mandatory, it is classified as an existence need for which other motivational factors meant to improve employees' performance revolves.

Looking at the effect on occupational health and safety policy on employees' performance, Lim (2012) added that when workers understand the health and safety rules and procedures of their job and the tools use for working, it helps them to work effectively and efficiently resulting in better performance of employees. The Australian National Commission for Health and Safety (2002) writing the benefit of promoting health and safety in organizations indicated that when employees are provided with safe working environment through the use of effective occupational health and safety management systems, it reduces employees absenteeism, and employee turnover and this has direct effect on increase in productivity, employee/customer relationship, subordinate/management relationship which the end result will be increase in profitability for the organization. Looking at a report by Safe Work Victoria (2006) on health and safety of various organizations, they share similar view of the literature provided by Australian National Commission for Health and Safety. To them, in organizations where health and safety policies are highly promoted, employees feel valued because they are kept from danger at work. This provides opportunities for employees to perform very well on the job to achieve organizational success. Hudson (2012) also sees health and safety promotion at the workplace having direct positive impact on employees' performance. To the written good occupational health and safety management practices would help to build a positive workplace culture and this will enhance performance of all employees. It also gives room for high employee performance that encourages creativity and innovation. A research provided by Ward et al. (2008) support the many writers who see organizations enjoying direct benefit in promoting occupational health and safety. To them in an organization where employees within feel that management 'cares' for them, there is an indication of positive management of occupational health and safety system and as such results in safer working practices and also have positive impact on employee outcomes (example, job motivation, job involvement, safety climate, organizational commitment, job satisfaction, mental health and well-being).

METHODOLOGY

The research adopted a survey designed. The sampling technique adopted for the study was the simple random techniques. Hat - and -draw (balloting) method was employed in selected 100 staff from the selected manufacturing companies.

The instrument used for data collection was a questionnaire titled 'Safety and Health on Job Performance (SHJP)' designed by the researcher. A four - point likert - type scale was designed to measure management strategies for industrial safety/health and employees' job performance in terms of productivity, employee/customer relationship, subordinate/management and turnover. The Pearson moment correlation coefficient was also used to test the hypotheses at 95 percent confidence level.

RESULTS AND DISCUSSION

The study was on the impact of industrial safety and health on employee job performance in manufacturing companies in Southern Cross River State. The abridged information on the perception of workers as regard the subjected matter are as presented in the table below:

Table 1: Descriptive statistics for all the variables of the study

S/N		n	X	SD
1.	Industrial safety (x)	100	22.74	7.83
2.	Industrial health (x)	100	21.73	7.46
3.	Employee productivity (y)	100	18.64	3.53
4.	Employee/customer relationship (y)	100	19.54	3.08
5.	Subordinate/management relationship (y)	100	19.82	3.33
6.	Employee turnover (y)	100	16.82	5.78

Source: Field survey, 2015

Test of hypotheses

Hypothesis one

There is no significant relationship between industrial safety and employees' job performance in terms of productivity, employee/customer relationship, subordinate/management relationship and turnover. The result of this test is presented in the table 2 below:

Table 2: Pearson Product Moment Correlation Coefficient Analysis of the relationship between industrial safety and employee job performance (N = 100).

Variables	Z _x z _y	Z _x ² Z _y ²	Z _{xy}	r
Industrial safety (x)	2274	57786		
Employee productivity (y)	1864	35978	43882	0.546*
Employee/customer relationship (y)	1954	39118	45188	0.316*
Subordinate/management relationship (y)	1982	40378	46166	0.425*
Employee turnover (y)	1645	30363	34847	0.572*

Significant at 0.05 level; df = 98; critical r-value = 0.195

Results of analysis in table 2 show that, the calculated r-value for industrial safety and employee performance in terms of employee productivity (0.546), employee/customer relationship (0.316) and subordinate / management relationship (0.425) are all greater than the critical r-value of 0.195 at 0.05 level of significance with 98 degrees of freedom. This

means that, there is a significant relationship existing between industrial safety and employee job performance in terms of productivity, employee/customer >. relationship and subordinate/management relationship in (SCC). The results also show that, the calculate r-value for industrial safety and employee performance in terms of employee turnover of -0.572 is in absolute term greater than the critical r-value of 0.195 degrees of freedom. This means that, there is an inverse significant relationship existing between industrial safety and employee performance in terms of employee turnover. That is, the higher the level of industrial safety, the higher the level of employee job performance in terms of productivity, employee/customers, subordinate/management relationship and the lower the level of employees turnover in selected companies. This findings is in line with findings of research presented in the Health and Safety Executive (2004) in 19 case study organizations established that the tangible benefits from health and safety management include higher productivity, lower absenteeism, lower employee turnover, avoiding the cost litigation, meeting clients demands and improves staff morale and employee relations. Again the literature provided by the Australian National Commission for Health and Safety (2002) on the benefit of promoting health and safety in organizations indicated that when employees are provided with safe working environment through the use of effective occupational health and safety management systems, it reduces employees absenteeism, and employee turnover and this has direct effect on increase in productivity, employee/customer relationship, subordinate/management relationship which the end result will be increase in profitability for the organization.

Hypothesis two

There is no significant relationship between industrial health and employees' job performance in terms of productivity, employee/customer relationship, subordinate/management relationship and turnover. The result of this test is as contained in the table 3 below.

Results of analysis in table 3 show that, the calculated r-value for industrial health and employee productivity (0.575), employee/customer relationship (0.480) and subordinate/management relationship (0.564) are all greater than the critical r-value of 0.195 at 0.05 level of significance with 98 degrees of freedom. This means that, there is a significant relationship existing between industrial health and employee job performance in terms of productivity, employee/customer relationship and subordinate/management relationship in UNICEM.

Table 3: Pearson Product Moment Correlation Coefficient Analysis of the relationship between industrial health and employee job performance (N = 100).

Variables	Z _x Z _y	Z _x ² z _y ²	Z _{xy}	r
Industrial safety (x)	2173	52729		
Employee productivity (y)	1864	35978	42004	0.575*
Employee/customer relationship (y)	1954	39118	43552	0.480*
Subordinate/management relationship (y)	1982	40378	44453	0.564*
Employee turnover (y)	1645	30363	34711	0.243*

Significant at 0.05 level; df = 98; critical r-value = 0.195

The results also show that, the calculate r-value for industrial health and employee performance in terms of employee turnover of -0.243 is in it absolute term greater than the critical r-value of 0.195 degrees of freedom. This means that, there is an inverse significant relationship existing between industrial safety and employee performance in terms of employee turnover. That is, the higher the level of industrial health, the higher the level of employee job performance in terms of productivity, employee/customer, subordinate/management relationship and the lower the level of employee turnover in selected cement companies (SCC). This findings is in fine with findings of Wumoo and Owusu (2013), who reveals in their study that health and safety measures put up by the company positively correlates with employees' performance despite that the correlation is weak. Also Lim (2012) in his literature added that when workers understand the health and safety rules and procedures of their job and the tools use for working, it helps them to work effectively and efficiently resulting in better performance of employees.

Hypothesis three

There is no significant relationship between industrial health/safety and employee job performance. The result of this test is presented in the table 4 below:

Table 4: Pearson Product Moment Correlation Coefficient Analysis of the relationship between industrial health/safety strategies and employee job performance (N = 100).

Variables	x	x ²	xy	r
	y	y ²		
Industrial safety (x)	1898	37738		
Employee productivity (y)	1864	35978	35943	0.388*
Employee/customer relationship (y)	1954	39118	37499	0.325*
Subordinate/management relationship (y)	1982	40378	38163	0.401*
Employee turnover (y)	1645	30363	30525	-0.293*

Significant at 0.05 level; df = 98; critical r-value = 0.195

The Results show that, the calculated r-value for industrial health/safety and employee performance in terms of employee productivity (0.388), employee/customer relationship (0.325) and subordinate/management relationship (0.401) are all greater than the critical r-value of 0.195 at 0.05 level of significant with 98 degrees of freedom.

This means that, there is a significant relationship existing between industrial health/safety strategies and employee job performance in terms of productivity, employee/customer relationship and subrodiante/management relationship in selected cement companies (SCC). The results also show that, the calculated r-value for industrial health and employee performance in terms of employee turnover of -0.293 is in it absolute term greater than the critical r-value of 0.195 degrees of freedom. This means that, there is an inverse significant relationship existing between industrial health/safety strategies and employee performance in terms of employee turnover. That is, the higher the level of industrial health, the higher the level of employee job performance in terms of productivity, employee/customer, subordinate/management relationship and the lower the level of employees turnover in selected cement companies (SCC). This findings is in line with findings of the Australian National Commission for Health and Safety (2002) on the benefit of promoting health and safety in organizations indicated that when employees are provided with safe working environment

through the use of effective occupational health and safety management systems, it reduces employees absenteeism, and employee turnover and this has direct effect on increase in productivity, employee/customer relationship, subordinate/management relationship which end results will be increase in profitability for the organization.

CONCLUSION AND RECOMMENDATIONS

From the findings of the results of the analyses above using Pearson Product Moment Correlation Coefficient Analysis test statistic, it was concluded that; there is a significant relationship existing between industrial safety and employee performance in terms of productivity, employee/ customer, subordinate/management relationship and inverse relationship with employee turnover. That is, the higher the level of industrial safety, the higher the level of employee job performance in terms of productivity, employees/customer, subordinate/ management relationship and the lower the level of employees turnover in selected cement companies.

There is also a significant relationship existing between industrial safety and employee performance in terms of productivity, employee/ customer, subordinate/management relationship and an inverse relationship with employee turnover. That is, the higher the level of industrial health, the higher the level of employee turnover. That is, the higher the level of industrial health, the higher level of employee job performance in terms of productivity, employee/customer, subordinate/management relationship and the lower the level of employees turnover in selected cement companies (SCC)

Conclusively, there is a significant relationship existing between industrial health/ safety strategies and employee performance in terms of productivity, employee/customer, subordinate/management relationship and an inverse relationship with employee turnover. That is, the higher the level of industrial health, the higher the level of employee job performance in terms of productivity, employee/customer, subordinate/management relationship and the lower the level of employees turnover in selected cement companies.

Based on these findings it can be recommended that that employer should provide safe working environment since feeling safe at workplace. Ranks as a very important factor in determining employee job performance. Employer should also ensure proper provision of healthcare facilities and adequate industrial safety/health strategies management in order to protect the lives of its employees at work place thereby reducing employee turnover and promote staff performance. Part of the employer's social responsibilities toward employees, should encompass industrial workers being given opportunities to participate in periodic workshops, seminars and lectures to sharpen their awareness on safety precautions.

REFERENCES

- Australian Commission for Health and Safety (2002).www.safetyandquality.gov.au. Accessed on 15th August 2013.
- Goetzl, R. Z., Guindon, A. M., Jeffrey, T. I. & Ozminkowski, R. J. (2005). Health and productivity management: Establishing key performance measures, benchmarks and best practices.

- Health and Safety Executive (2000). The employment medical advisory service and you. HSES (rev1) 07/00 C200.
- Health and Safety Executive (2004). The development of case studies that demonstrate the business benefits of effective management of occupational health and safety. ISE Research Report. 249. Green Street Beman. HSE Books.
- Hudson, C. (2010). Respect, equity and diversity framework: Creating workplaces with positive cultures. Accessed on 12th September, 2013, from www.cmd.act.gov.au.
- International Labour Organization (2012). Safety and health at work. Online: http://www.ilo.org/global/topics/safety_and_health_at_work//ang...en/index.htm.
- Lim, A. (2012). OHS management system: Three benefits for construction enterprise. Retrieved on 12th August 2013 from [www.artipot.com/ article-tags/ohs-management-system](http://www.artipot.com/article-tags/ohs-management-system).
- O'Toole, M. (2002). The relationship between employees perceptions of safety and organizational culture. *Journal of Safety Research* 33: 231-243.
- Pollitt, D. (2011). Corus forges new approach to safety and health. *Human resource management international digest*. Vol.19 No.1 pp.7-9.
- Pronovost, P., Weast, B., Rosenstein, B., Sexton, J. B., Holzmüller, C. G., Paine, L, Davis, R., Rubin, H. R. (2009). Implementing and validating a comprehensive unit - based safety program. (Online) Available: (<http://circ.ahajournals.org/content/119/2/330.full>) (March 7, 2012).
- Rosekind, M. K. (2005). Understanding the societal costs of impaired alertness: Safety, health and productivity risks.
- Safework, V. (2006). Good health and safety means good business: Public reporting of occupational health and safety by organizations. Accessed on 16th September, 2013, from www.worksafe.vic.gov.au.
- Waring, A. (1996). Corporate health and safety strategy. *Facilities*, Vol.14 No.3/4 pp.52 - 55. ISSN 0263 - 2772. Ward et al (2008). The impact of health and safety management on organizations and their staff, IOSH: United Kingdom. World Health Organization (2009). www.who.int.
- Womoh, G., Owusu, E. E. & Addo, M. (2013). Impact of occupational health and safety policies on employees' performance in the Ghana's Timber industry: Evidence from Lowser and logs Limited. *International Journal of Education and Research*, 1(2)