

**IMPACT OF HAZARD MANAGEMENT PRACTICES ON ORGANIZATIONAL  
PERFORMANCE AMONG SELECTED FIRMS IN NNEWI, ANAMBRA STATE, NIGERIA**

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**ABSTRACT**

*This paper examined the impact of hazard management practices on organizational performance, involving four dimensions of improved management/employees safety practices; enhanced productivity; increased profitability; and reduced accident rates in three Companies (Cutix Plc.; Chicason Group; and Ibeto Cement) in Nnewi, Anambra State. Hazard management through job analysis represents a process of identifying potential hazards in job activities and assessing the potential effects on employees, organizational assets, and the environment generally. It takes anchorage on the theory that effective hazard management through sound job hazard analysis at the task level in organizations has an influence not only on employee performance, but also, on organizational performance through enhancement of productivity and profitability, as well as reduction of accident rates. The paper posits that if organizations foster and maintain an effective hazard management practices through comprehensive job hazard analysis, there is likely to be an improvement in organizational performance. To accomplish this, organizational employees must be in a position to efficiently and effectively discharge their respective tasks. This, to a great extent, depends on the level of institutionalized safety practices in the workplace.*

**Keywords: Hazard Management; organizational performance; safety practices; job hazard analysis**

**INTRODUCTION**

The influence of Hazard Management through effective Job Hazard Analysis on organizational performance forms the subject of this research. A job hazard analysis is simply a documentary analysis of the various task steps, associated hazards, typical threats; risk assessment, control and recovery measures associated with different construction activities. It is the bedrock of the Hazards and Effects management practices.

The preparation and implementation of an effective Hazard Management Practice through Job Hazard Analysis, facilitates the identification of job hazards, promotion of work planning, safety consciousness, and management of risk and reduction of accidents.

The influence of Hazard Management Practices via job hazard analysis on employee health and safety, remain critical to achieving organizational performance. It is assumed that effective job hazard analysis has a direct relationship with employee; since assigned tasks can only be safely accomplished when workers are in a good state of health and the work environment is safe and conducive for the execution of the assigned duties. Any phenomenon that affects human productive capacity will invariably affect organizational

productivity; hence improving workers' wellbeing offers an organization the opportunity of enhancing its performance (Galliker, 2000).

Court (2003), in his contribution to the inescapable imperative of institutionalizing an effective Hazard Management Practices through corporate job hazard analysis argues that creating better work environments and keeping harm at abeyance from work are key to improving productivity.

Formal organizations are consciously directed toward attainment of set goals. Goal accomplishment is a function of the coordinated effort of organizational resources (human, material, financial, informational, etc). The realization of man as the most important of all the assets, in contemporary management, may be based on its inevitable role in the manipulation of all other organizational resources for productivity. The human resource, apart from being able to grow in its capacity to serve, is also capable of a broad-spectrum of behavioral/attitudinal dispositions; depending upon situational exigencies (Ogbeide, 2012).

Management perception of human importance in the organizational setting has been exhibited through deliberate strategic decisions directed at the attraction of desired labor, to the verge of exit. One of such strategic decisions can be epitomized by effort to provide safe work environment. Therefore, this paper intends to determine the correlation between effective Hazard Management Practices through job hazard analysis health and safety management policy and organizational performance among selected firms in Nnewi, Anambra State, Nigeria. .

### **STATEMENT OF THE PROBLEM**

It has virtually become a common occurrence to observe various forms of industrial accidents in numerous workplaces and work communities. Some of these accidents have resulted in serious bodily injuries, permanent disabilities, and even deaths among employees. These negative occurrences often rub-off significantly on the organization in the form of compensation for damages, and the challenges of having to contend with absence and sick leaves occasioned by workplace mishaps. Increased labor turnover, absenteeism, strained management-labor relations, operational inefficiency, and decreasing performance become noticeable in such organizations. In spite of these frightening industrial realities, management policy of organizations, in most Third World Countries, including Nigeria, is yet to properly address this very salient issue of employee health and safety. It is therefore against the backdrop of such developments that the imperative of Hazard Management Practices, through an effective Job Hazard Analysis, by organizational authorities, receives traction in this study.

### **OBJECTIVE OF THE STUDY**

The main objective of this study is to ascertain if there is a relationship between Hazard Management Practices through effective Job Hazard Analysis, and organizational performance (improved management/employees safety practices, enhanced productivity, increased profitability and reduced accident/ incident rate), since there is support in the literature for the argument that incorporation of hazard management culture at the organizational level has significant and positive relationship with improved organizational safety performance (Mossink and De Greef, 2002). :

### **RESEARCH HYPOTHESIS**

In view of the above research objectives, the following null hypothesis was formulated: **H<sub>0</sub>**: Hazard Management Practices is not related to better organizational performance (i.e improved management/employees safety practices, enhanced productivity, increased profitability and reduced accident/ incident rates).

### **REVIEW OF RELATED LITERATURE**

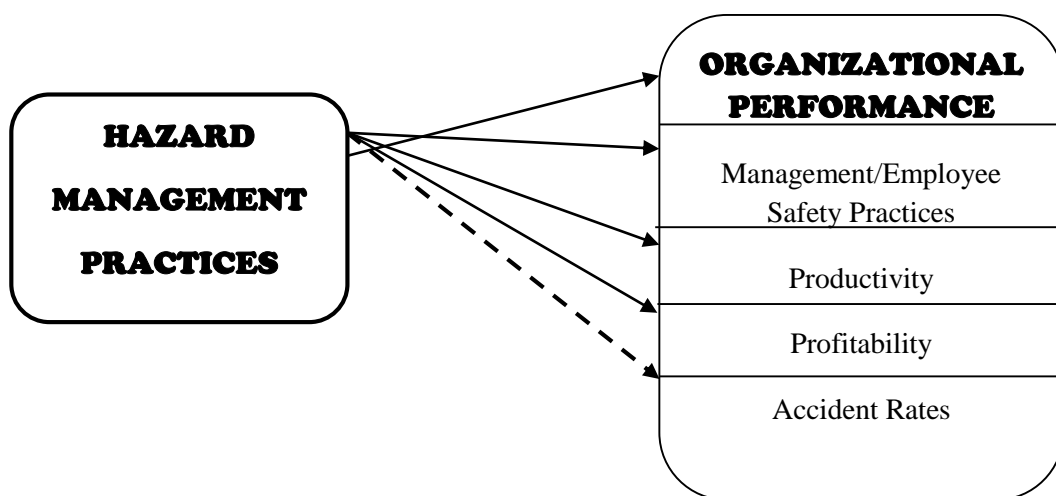
Effective hazard management practices through a well-focused job hazard analysis involves among others, the process of identifying potential hazards in organizations and assessing their potential effects on people, assets and the environment. For a job hazard analysis to be suitable and sufficient, it must be proactive, cover all reasonably foreseeable industrial risks and be reasonably practicable in its hazard management approach. A comprehensive job hazard analysis must use reasonably practicable risk control measures in managing workplace hazards. This means that the cost of risk control in terms of time, effort, money or inconvenience must not outweigh the benefits of the risk control measure. According to Goetzel (1999), improving

employees HSE practice at work, is directly related to employee productivity and enhanced organizational performance.

If a company incorporates an effective Hazard Management Practice through a comprehensive job hazard analysis (JHA) into its operations, it tends to facilitate employee obedience to safety rules since the awareness of that imperative would have thus been created. This tends to make for better safety measures, resulting in better management/employee safety performance, and by implication, enhanced organization effectiveness.

### CONCEPTUAL FRAMEWORK

The literatures are replete with evidences of poor-performing organizations receiving a boost in the performances of their employees, and by implication, the organization, upon incorporation and institutionalization of an effective hazard management culture. This study thus opined that organizational performance, examined along the dimensions of Management/Employee Safety Practices; Employee Productivity; Organizational Profitability; as well as Accident Rates is likely to be impacted by the fostering of a well-thought-out hazard management practices.



Upon fostering an enabling industrial ambience that manifestly guarantees an effective hazard management culture, through a painstaking job hazard analysis, the accident rates in the organization becomes significantly attenuated, while management/employee safety practices, employee productivity, as well as the firm's profitability are shored up. Figure 1 above shows the nature of the relationship among the variables. While the blocked arrows are indicative of positive relationships, the dashed arrow is reflective of a negative nexus.

### THEORETICAL FRAMEWORK

Safety constitutes one of the essential human needs, as postulated by Abraham Maslow in his theory of needs hierarchy. Feeling safe at work remains a very important factor in job satisfaction (Kreitner, 2007). In attempt to satisfy this need, certain organizations incorporate into their policy thrusts, certain practices, including Hazard Management, which guarantees employees' safe work execution. Organizational policy of this nature is often categorized under health and safety.

### EMPIRICAL REVIEW

Berg (1999) investigated the effects of high performance work practices on job satisfaction in the United States Steel Industry and found that there was a significant and positive relationship between high performance and job satisfaction among the employees.

In a meta-analysis, Combs, Yongmei, Hall, and Ketchen, (2006) attempted to examine the industrial significance of High-Performance Work Practices and their effects on organizational performance.

Messersmith and Guthrie (2010) similarly investigated High Performance Work Systems in emergent organizations, and the implications for firm performance. Their study findings showed that organizational performance tend to increase under an industrial climate of high performance work systems.

In an analysis conducted by Annette, Tom, and Stefan (2011) concerning management practices and sustainable organisational performance, they found that there exists consistent evidence across all the results that the utilization of high-performance work practices (HPWPs) - which strongly approximates effective Hazard Management Practices - are associated with improved performance outcomes for both employees and their employing organizations. The framework they used to explain the link between HPWPs and organizational performance is based on the ability, motivation and opportunity (AMO) model. It proposes that HPWPs achieve their results by increasing employees' discretionary efforts.

Their results showed that HPWPs tend to achieve their effects on organisational performance through improving employee performance, rather than directly acting on operational outcomes. They provide evidence to emphasise the contribution employees make to organisational performance. Good employee outcomes are associated with good organisational outcomes. Management and employee representatives making sincere efforts to solve common problems is positively associated with all organisational outcomes, including improved productivity, reduced attrition rate, and the near absence of industrial actions.

Their findings indicated that ample evidence exists to suggest that most HPWPs and combinations of same have a significant and positive relationship for both the highest-performing and the lowest-performing firms. However, there is a much stronger positive link for individual HPWPs and combinations of HPWPs and performance in poorer-performing firms. This tends to suggest that, if such a link were actually causal, poorer-performing firms may stand to derive greater benefits from the integration and application of HPWPs in their operations.

Agwu (2012) investigated the impact of Job Hazard Analysis on Organisational Performance in Shell Bonny Terminal Integrated Project. The study outcome indicated that there is actually a strong relationship between effective Job Hazard Analysis and Organizational Performance.

Also, Ramazan, Arzu, Meral & İsmail (2016) conducted a study which examined the effects of Occupational Health and Safety Practices on Organizational Commitment, Work Alienation, and Job Performance. Occupational health and safety studies were reviewed under five dimensions: safety and health rules (SAHR); safety procedures and risk management (SPRM); first aid support and training (FAST); organizational safety support (OSS); and occupational hazard prevention (OHP). Apart from the fact that their research findings indicated that Organizational safety support was significantly and positively related to organizational commitment, the study outcome also showed that Occupational Health and Safety Practices were positively related to job performance and negatively related to work alienation.

Virtually all these outcomes tend to suggest that strong commitment of organizations to workplace safety stimulates an upward swing in desirable worker behaviors, just as it decreases problems associated with occupational safety. Also, incorporated hazard and risk management policies and practices in the firm provide standards and harmony in workplace sociology. Consequently, comprehensive employee trainings in First Aid administration tend to enhance employee motivation, thus preventing occupational accidents and creating an enabling milieu for appropriate workplace behaviors. Organizations with a good working climate may thus increase the productivity potentials of their employees to higher levels.

## **METHODS**

### **Research Design**

An exploratory, cross-sectional survey was used in generating the primary data required for the study. The study was designed to provide plausible solutions to the research objectives. Data were generated through responses obtained from the study participants.

**Participants**

One hundred and sixty-two (162) respondents were sampled from the three selected firms in Nnewi, Anambra State, Nigeria. The sample size was actually pre-determined using the Taro Yamane formula with an error term of 5%. The total population of study consists of 273 employees from the three selected firms. A sample of 162 workers determined at 5% level of sign was selected using stratified random sampling method for the purpose of questionnaire administration.

**Instrument**

The questionnaire was designed to obtain a fair representation of the opinions of the workers in the three firms using a five-point Likert type scale. The questionnaire responses of the sample respondents were presented using tables, analyzed and interpreted using simple percentages. The reliabilities as well as the validities of the study instruments were established through relevant pilot studies, working in concert with experts (Professors) in Instrument Development and Validation.

**RESULTS**

**Table1 - Response pattern on the extent of incorporation of Hazard Management Practices in the firms**

RESPONDENTS' FIRMS	RESPONSES PROVIDED					
	VERY LARGE EXTENT	LARGE EXTENT	MILD EXTENT	POOR EXTENT	VERY POOR EXTENT	TOTAL
CUTIX	22	18	08	07	05	60
CHICASON	20	20	03	03	02	48
IBETO	23	18	04	04	05	54
<b>TOTAL</b>	65	56	15	14	12	162

Source: Field Survey, 2018.

**Table 2 Response pattern on the extent to which Hazard Management Practices incorporation facilitates improved organizational performance**

RESPONDENTS' FIRMS	RESPONSES PROVIDED					
	VERY LARGE EXTENT	LARGE EXTENT	MILD EXTENT	POOR EXTENT	VERY POOR EXTENT	TOTAL
CUTIX	24	20	08	05	03	60
CHICASON	21	20	03	02	02	48
IBETO	24	20	04	04	02	54
<b>TOTAL</b>	69	60	15	11	07	162

Source: Field Survey, 2018.

**Table 3: Responses on the extent to which better organizational performance depends on incorporation of Hazard Management Practices**

RESPONDENTS' FIRMS	RESPONSES PROVIDED			
	LARGE EXTENT	MILD EXTENT	POOR EXTENT	TOTAL
CUTIX	44	05	11	60
CHICASON	41	01	06	48
IBETO	47	04	03	54
<b>TOTAL</b>	132	10	20	162

Source: Field Survey, 2018.

Table 1, indicates that a total of 121 i.e. 75% of the workers across the three firms are of the opinion that their company to a large extent incorporated Hazard Management Practices in their operations; 15 workers i.e. .09% expressed a mild extent view of their companies incorporation of Hazard Management Practices, 10 workers i.e. 3% expressed a poor extent view of their companies incorporation of Hazard Management Practices in their operations; while 26 workers i.e. 16% were of the view of poor extent of their companies'

incorporation of Hazard Management Practices in their operations. It was therefore concluded that there was evidence, to a large extent, of the incorporation of Hazard Management Practices in the activities of the three firms as corroborated by the 75% large extent response of the study respondents.

Table 2, indicates that a total of 69 i.e. 43% of the workers across the three categories were of the view that their firm's incorporation of Hazard Management Practices in their activities, to a very large extent influenced better organizational performance (improved management/employees' safety practices, enhanced productivity, increased profitability and reduced accident/ incident rate). Sixty (60) i.e. 37% of the workers were of the view that their company's incorporation of Hazard Management Practices in their activities, to a large extent influenced better organizational performance. Fifteen (15) workers i.e. .09% expressed a mild extent view; 11 workers (i.e. .07%) had a poor extent view; while 7 workers (i.e. .04%) were of a very poor view of their company's incorporation of Hazard Management Practices for improved organizational performance.

It was thus concluded that there was actually evidence that incorporation of Hazard Management Practices through effective job hazard analysis in the activities of the three firms to a very large extent facilitates better organizational performance.

Table 3 shows that a total of 132 i.e. 81.48 % of the workers across the three firms were of the view that better organizational performance depends to a large extent on their company's incorporation of Hazard Management Practices in their activities; 10 (i.e. .06%) of the workers expressed a mild extent view; while 20 (i.e. 12.34%) of the workers expressed a poor extent view. We therefore concluded that there was indeed ample evidence that better organizational performance depends on incorporation of Hazard Management Practices in the firms' activities as buttressed by the 81.48% large extent response of the study respondents.

#### **TEST OF HYPOTHESIS**

(i) **H<sub>0</sub>**: Better organizational performance (improved management/employees practices, enhanced productivity, increased profitability and reduced accident rates) is not dependent on the incorporation of Hazard Management Practices in the firm.

**H<sub>1</sub>**: Better organizational performance (improved management/employees practices, enhanced productivity, increased profitability and reduced accident rates) is dependent on the incorporation of Hazard Management Practices in the firm.

(ii)  $\alpha = 0.05$

(iii) Degree of Freedom (df) =  $(r - 1)(c - 1) = (3 - 1)(3 - 1) = 4$

(iv) Chi-square critical value  $\chi^2_{0.05} = 9.49$

(v) Chi-square computed value from table 4 =  $\chi^2_1 = \sum(F_0 - F_e)^2 / F_e$

From the Computation of Chi-Square Test Statistics from Table 3 (*Some assumptions are implicit here*)

$$\chi^2 = 28.1425$$

(vi) **Decision Rule:**

**Reject H<sub>0</sub>: if  $\chi^2 > \chi^2_0$**

**Accept H<sub>0</sub>: if  $\chi^2 < \chi^2_0$**

Since  $\chi^2 > \chi^2_0$  i.e.  $28.1425 > 9.49$ , we reject the null hypothesis and accept the alternative hypothesis that better organizational performance (improved management/employees safety practices, enhanced productivity, increased profitability and reduced accident rates) is dependent on the incorporation of Hazard Management Practices in the firms

#### **CONCLUSION**

This paper examined the implications of Hazard Management Practices incorporation on corporate performance in selected firms in Nnewi, Anambra State, Nigeria. Simply put, the main thrust of the economic approach to Hazard Management Practices at the corporate level is based on three principles: Good Hazard Management Practices through effective job hazard analysis will lead to better performance of employees, management and the company as a whole resulting in less disruption of work process and less liabilities; Better performance will lead to fewer accident rates, damages, liabilities, legal costs, medical costs etc. through reduction of safety risks and creation of better opportunities and rehabilitation for employees after

injury; Better company performance will lead to better productivity, increased profitability, enhanced efficiency, higher quality, improved corporate image and elevated innovative capacity

### **RECOMMENDATIONS**

Arising from the findings of this paper, it is suggested that the management of the three firms should consider adopting the following measures: Continuous training of their safety personnel and the entire workforce on the acquisition of modern hazard identification skills; Continuous improvement on employee motivation and safe work environment through promotion of safety awareness; Continuous top management/employees commitment to Hazard Management Practices; Continuous implementation of safety regulations and best practice procedures; Continuous review of corporate safety policies to accommodate changes; as well as Continuous use of competitive intelligence, high-level knowledge flow management and co-operative resourcing as a means of obtaining relevant information for improving Hazard Management Culture consistent with global best practices.

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