

EFFECT OF SAFETY MANAGEMENT SYSTEM ON ORGANIZATIONAL EFFECTIVENESS**MERUO EMMANUEL OKEOMA**

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Abstract

This study focused on effect of safety management system on organizational effectiveness in selected oil and gas firms in Aba, Abia State. The study sought to examine the effect of safety management system on organizational effectiveness. The study adopted survey research design, primary data were obtained through questionnaire and secondary data were obtained through books, journals and internet. The target population of the study comprised of one hundred and ninety nine (199) staff of Tonimas Nigeria Ltd and Master Energy Nigeria Plc, with a sample size of 133 respondent using Taro Yamane formula. The data was presented using simple percentage table, while the hypothesis formulated was tested using Pearson Correlation. Data generated from the questionnaire were presented in frequency distribution tables and analyzed by the use of simple percentage techniques. The findings indicated that safety management system had a positive effect on organizational effectiveness. The study concluded that safety management system has significant effect on organizational effectiveness. It also submitted that significant impact of occupational health on organizational growth. The study recommended that workplaces and working environments should be planned and designed to be safe and healthy, continuous improvement of occupational safety and health must be promoted.

Introduction**Background of the Study**

Safety management is an organizational function, which ensures that all safety risks have been identified, assessed and satisfactorily mitigated. Safety management is commonly understood as applying a set of principles, framework, processes and measures to prevent accidents, injuries and other adverse consequences that may be caused by using a service or a product. Safety management implies a systematic approach to managing safety, including the necessary organizational structure, accountabilities, policies and procedures (Abuga, 2012). The

safety management of employees is a very significant issue to consider with relation to the attainment of organizational goals. Safety management policies and programs are concerned with protecting employees and other people affected by an organization's activities, products and services against hazards. Safety culture has been identified as a critical factor that sets the tone for importance of safety within an organization (OToole, 2002).

There are dangers and threats in every occupation, and it is imperative that managers and workers alike become acutely aware of the hazards associated with their jobs, as well as the preventive measures necessary for minimizing them. Many workplace fatality investigations point out the same areas of concern regarding worker safety, the primary contributing factors to these fatal workplace injuries are human error, procedural insufficiency, and equipment insufficiency (Badelake, 2012).

Today, technology pressure and intense global competition not only bring tremendous changes in organizational safety but also threaten it. In many countries, workplace accidents have received big attention as early as 100 years before, due to the fact that it is enormously costly. Making good business could be proven through the increase of productivity and profit in an accident-free working environment. Inconsistent understanding of safety responsibility between management and employees has contributed to unsafe working environment. The importance of risk and safety management is increasingly emphasized in enterprises, and the importance of overall safety in the company's profitability, business and competitiveness is significant. The world's leading companies have started to increasingly invest in different sectors of safety, and safety is a central precondition of competitiveness, as well as an integral part of high-quality business operations (Bernadin, 2007).

However, safety is a crucial component of any organization and how well it is managed determines the success or otherwise of any organization, particularly manufacturing firms which are exposed to numerous risks and work hazards. It is concerned with preserving and protecting human and facility resources in the workplace. Moreover, the percentage of accidents occurring in manufacturing industries is higher compared to other sectors. These accidents occur because of poor planning for accident prevention, lack of awareness on safety norms, poor training and education of employees, use of old and outdated machines and tools, use of hazard prone materials and poorly designed handling and transport devices, and callousness of management.

Thus, a safe working environment for employees is necessary by adopting rules, regulation and policies that mitigate accidents and exposure to hazards. The risk of hazard to people and work environment seriously affects production throughout the world. To reduce the imbalance between production and safety climate, it is necessary to focus on policy formulation, prediction of various types of injuries in the workplace, and benchmarking of safety performance.

However, the deteriorating situation of health and safety in the workplace may perhaps exist due to the inadequate resource facilities, economic constraints and lack of opportunity to conduct research and studies on the assessment of exposure-diseases associations. Officials, who are employed by the state, are not able to implement work regulations and labour legislation easily. Thus, they are not professionally trained and expert in the occupational health, industrial hygiene and/or safety fields, and thus, successful application and implementation of control measures are lacking. Steps to control work exposure limits have

been ineffective, since national policies have been rare, owing to the multiple obstacles in preventing occupational problems. Therefore, there is need to examine the effect of safety management system on organizational effectiveness, a study of selected oil and gas firms in Aba, Abia State.

However the above x-rayed scenario prompted this study to ascertain the effect of safety management system on organizational effectiveness. However, the specific objective of the study was to examine the effect of safety management system on organizational effectiveness. The research question to aid the study was, what are the effects of safety management system on organizational effectiveness?

Literature Review

Safety Management System

Safety management systems are integrated mechanisms designed to control the risks that may affect worker health and safety in organizations and at the same time to ensure that the company complies with the regulations. A good safety management system should be completely integrated with the company and with binding power; a cohesive system of policies, strategies and procedures provides consistency and harmonization. Health and safety policy and procedures are a part of efficient health and safety management framework. General health and safety policies demonstrate the management's willingness to provide the workers with a healthy and safe workplace (Cassio, 2004).

A Safety Management System (SMS) can be defined simply as a planned, documented and verifiable method of managing hazards and associated risks. International Civil Aviation Organization (ICAO) defines in a little more detail; a safety management system involves a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures (Thomas, 2011).

For smooth functioning of an organization, the employer has to ensure safety and security of his employees. Health and safety form an integral part of work environment. A work environment should enhance the well-being of employees and thus should be accident free. The terms health, safety and security are closely related to each other. Health is the general state of well-being. It not only includes physical well-being, but also emotional and mental well-being. Safety refers to the act of protecting the physical well-being of an employee. It will include the risk of accidents caused due to machinery, fire or diseases. Security refers to protecting facilities and equipment from unauthorized access and protecting employees while they are on work (ICAO, 2009).

A proper understanding of the various work situations in manufacturing, textile, mining, construction and other labour intensive industries reveal that workers are exposed to hazards. These include: physical contact with poisons, dust inhalation, exposure to organic and inorganic chemicals, extreme temperatures of hot or cold, accidents, injuries, falls, burns and scalds, other dangers and sudden death. However, the health and safety of the workers have been recognized as a fundamental human right. Employer has a common law duty to provide a safe place of work for his or her employees and is liable at common law for accidents encounter by his or her employees in the course of their employment (Cole, 2005).

Occupational Health

Occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards. Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Occupational health is a multidisciplinary field of healthcare concerned with enabling an individual to undertake their occupation, in the way that causes least harm to their health (Cassio, 2004).

The main focus in occupational health is on three different objectives: (i) the maintenance and promotion of workers' health and working capacity; (ii) the improvement of working environment and work to become conducive to safety and health and (iii) development of work organizations and working cultures in a direction which supports health and safety at work and in doing so also promotes a positive social climate and smooth operation and may enhance productivity of the undertakings. The concept of working culture is intended in this context to mean a reflection of the essential value systems adopted by the undertaking concerned. Such a culture is reflected in practice in the managerial systems, personnel policy, principles for participation, training policies and quality management of the undertaking (Cassio, 2004).

Occupational Safety and Health

Occupational health and safety 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 health and safety programs is to foster a safe work environment. Occupational health deals with ill-health arising from working conditions/or environment that slowly accumulate to lead to deterioration of 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).

According Mejjia (2010) asserts that occupational safety and health is a broad area which includes both physical and emotional well-being. Effectively managing workplace safety and health requires far more than reducing the number of job related accidents and injuries. Health and safety is a positive concept that includes social and personal resources as well as physical capabilities. The concept of accident proneness is now largely discredited; safety and health programs concentrate as far as possible on ensuring that the employee is suitable for the job and that work is conducted in a safe environment (Graham and Bennet, 1995).

The term occupational safety and health refers to the physiological conditions of a workplace that result from work environment provided by the organization. Physiological-physical conditions include diseases and accidents such as actual loss of life, repetitive motion injuries, back pain, carpal tunnel syndrome. Psychological conditions encompass symptoms of poor mental health and job burnout, including apathy, emotional exhaustion, withdrawal, confusion about roles and duties, mistrust of others, inattentiveness, irritability and a tendency to become distraught over trifles. These conditions often are responses to workplace stress and a low quality of work life (Cassio, 2004).

Occupational Safety and Health Programs

Occupational safety and health programs involve practices or activities that are undertaken by the organization in reducing unsafe conditions and unsafe acts in the workplace. Reducing unsafe conditions is always an employer's first line of defense in accident prevention. In designing safe and healthy environments, employers need to pay special attention to vulnerable workers in the workplace either due to lack of education, ill-fitting personal protective equipment, physical limitations or cultural reasons (Dessler, 2008).

The achievement of a healthy and safe place of work and the elimination of maximum extent of possible hazards to health and safety is the responsibility of everyone employed in an organization as well as those working under contract. The occupational safety and health programs are designed to minimize the impact of work related illnesses and accidents arising from the work. Designing and implementing intervention programs is more challenging to organizations/or companies with none operations around the world because it is more difficult to monitor progress. Related to this challenge are responsibility of human resource professionals and organizations in managing the conditions resulting from major disease epidemics and major disasters. Because the magnitude of the impact of diseases and disasters, organizations must be proactive in managing occurrence (Foot and Hook, 2008).

On the other hand Dessler (2008) argues that healthy and safe working environment does not just happen, but has to be created. The organizations with the best reputation for safety have developed well planned, thorough health and safety programs. Concern for safety should begin at the highest level within the organization, manager and then supervisor. If an organization takes effective safety and health measures, fewer of its employees will have short or long term ill effects as a result of employed at that organization. Organizations depend on employees as working partners and fellow members of the organization community. The achievement of a healthy and safety place of work, elimination of maximum extent of possible hazards in an organization as well as those working there under contract. By reducing the rates and severity of occupational accidents, diseases, workplace violence, stress related illness, and improving the quality of work for their employees, organizations become significantly effective (Werner, 2009).

Organizations invest in health and safety programs in part of humanitarian reasons but also out of concern of controlling costs of many kinds, extending from times Occupational Safety and

Health Act for non-compliance to health insurance premiums, to payments for non-productive labour. They also benefit from having healthy employees as some have been willing to invest for this purpose by setting wellness programs and facilities. Many interventions can used to improve workplace safety and health. Among the most common are programs designed to reduce accidents and injuries, reduce diseases, improve employees' ability to manage stress and overall health. While some of the interventions are intended to change the lifestyles and non-work behaviours of employees. All these interventions can reduce the many costs associated with employee injuries, illness and death (Goetzel, Guindon, Jeffrey and Ozminkowski, 2005).

Health and Safety Inspections are programmes designed to examine a specific area of the organization, an operational department or a manufacturing process to locate and define any faults in the system, equipment, plant or machines, or any operational errors that might be a danger to health or source of accidents. Health and safety inspections should be carried out in a regular and systematic basis by line managers and supervisors with the advice of health safety specialists (Hudson, 2010). Some types of occupational safety and health programs include;

Health and Safety Training

Health and safety training is a key part of the preventive programme. Safety and health training is an essential element in maintaining a healthy and safe workplace and has been an integral component of occupational health and safety management. Training provides individuals with the basic theoretical and practical knowledge for the successful exercise of their trade or occupation and their integration into the working environment. Managers, supervisory staff and workers all need to be trained (Armstrong, 2006).

Safety Committee

Safety Committee is another strategy in the management of accident prevention in the use of safety committee. Cooperation between management and workers or their representatives at the workplace, in the field of occupational health and safety, is an essential element in maintaining working environment. Joint health and safety committees provide a valuable framework for discussion and for concerted action to improve safety and health (Dessler, 2008).

The overall objective of the safety committee is the promotion of cooperation between employers and employees in investigating, developing, and carrying out measures to ensure the health and safety at work of the employees (Indakwa, 2013).

Ergonomics is an applied science that studies the interaction between people and the work environment. It focuses on matching of the job to the worker. The study and design of work environment is to address physiological and physical demands on individuals. In the work setting, ergonomic studies look at such factors as fatigue, stress, tools, equipment layout and placement of control (Robert and John, 2004).

Ergonomics involves improvement of safety by making the job more comfortable and less fatiguing through ergonomics. Ergonomics considers changes in the job environment in conjunction with physical and psychological capabilities and limitations of employees (Jackson, 2009).

Employees Wellness Programs

Employees Wellness Programs are important in health and safety. Employee Wellness Programs is an active process of becoming aware of and making choices toward a more successful existence. Companies have invested in wellness programs at record rates and such programs appear to be paying off in terms of morale, performance, absentee rates and health care costs. Organizations have become more interested in preventive programs. Recognizing that they can have an effect on their employees behaviour and lifestyle off the job, companies are encouraging aging employees to lead healthier lives and also attempt to reduce health care costs through formal employee wellness programs. Wellness programs may be simple and

inexpensive as providing information about stop-smoking clinics and weight loss programs or as comprehensive and expensive as professional health screening and multi-million dollar fitness facilities (Jelimo, 2007).

Employee Assistance Programs

Employee Assistance Programs (EAP) is designed to help employees whose job performance is suffering because of physical, mental or emotional problems. EAPs have become reasonably common in recent years as a means of providing both practical and emotional support for employees. They are the main formal method used to provide support at different times. Employee assistance programs address a variety of employee problems ranging from drug abuse to marital problems. Many organizations create employee assistance programs because they recognize their ethical and legal obligations to protect their workers physical health but their mental health as well (Lim, 2012).

Importance of Occupational Safety and Health Programs

Occupational health and safety have great importance in the employees work environment because nowadays human resource is the most valuable asset that an organization does have and the existence of bad occupational health and safety environment greatly affect the job performance of employees. Occupational safety, health and the well-being and quality of life of working people are crucial prerequisites for productivity and are of utmost importance for overall socio-economic and sustainable development (Liukkonen, 1996).

According to Cole (2004), states that an employer has a common law duty to provide a safe place of work for his employees and is at common law for accidents caused by his employees in the course of their employment. The achievement of the highest standards of health and safety in the workplaces is important because the elimination or at least minimization of health and safety hazards and risks is the moral as well as legal responsibility of the employers. The tangible benefits from better health and safety management include higher productivity, lower absences, avoiding the cost of accidents and litigation, meeting clients demands and improved staff morale and employee relations. Safe and healthy work environment provides the organization and its employees with the opportunity to achieve high performance (McNamara, 1998).

According to Beardwell and Holden (1993), argue that the recognition of the importance of health and safety in recent years has been heavily influenced by the intensification of competition and the relative success of organizations where investment in employee health and safety is considerably emphasized. They add that technological developments and organizational change have gradually led some employers to the realization that success relies on the conducive work environment to their employees and this mars considerable and continuous investment on the health and safety. Increased productivity is often said to be the most important reason for safe work environment. Health and safety not only increase productivity but also to motivate and inspire workers by letting them know how important their jobs are and also how working in safe work environment is (McNamara, 1998).

Challenges militating against safety management in an organization

1. Determining legal liability/accountability of the process which is established to take care of any sort of safety related process.
2. Identifying a trained and qualified safety manager who can handle the required data and can establish a study on the gap analysis of hazard detection / approaches which can avert a major accident in future (McCunney, 2001).
3. Instituting data collection methodologies. A proper data collection system is to be adopted for reporting and recording any amount of hazard/ incident, be it small or big.
4. Developing a feasible and strong hazard/ risk reporting system (Nzuve, 2009).
5. Integrating airport SMS with other domains, particularly air traffic control, airlines and other related agencies (Millmosre, 2007).

Organizational Effectiveness

Organizational effectiveness is the concept of how effective an organization is in achieving the outcomes the organization intends to produce. Organizational Effectiveness groups in organizations directly concern themselves with several key areas. They are talent management, leadership development, organization design and structure, design of measurements and scorecards, implementation of change and transformation, deploying smart processes and smart technology to manage the firms' human capital and the formulation of the broader human resources agenda. By definition, organization effectiveness is the efficiency an organization, group, or company can meet its goals. How an organization produces its set quota of products, how much waste it produces, or how efficient its processes fall under organizational effectiveness (Cole, 2005).

Six Steps of Organization Effectiveness

Leadership: The first step in organization effectiveness is 'Leadership'. In this step, management and project leaders set forth the overall vision of the organization. What goals they hope to accomplish with this project, how to carry them out, and what results they must strive for are in Leadership.

Communication: Of course, Leadership is only as effective as the group's overall communication. In the second step, Communication focuses on evenly spreading the goals, guidelines, and aspirations that derive in Leadership. Furthermore, project managers must focus on strategic communication, relation information in the forms that other project members need to complete their tasks.

Accountability: In the third step, Accountability, project managers and leaders must uphold other employees to their tasks and responsibilities. Typically, project team members receive awards or consequences, based on their performance. As a result, Accountability greatly determines how smoothly and effectively a project performs.

Delivery: Your products and services are only successful if customers can receive them. At the next step, Delivery focuses on ensuring an effective delivery system is in place. When your organization has long, complex delivery process, errors will occur and efficiency is at risk. With smaller, more concise processes, your end products can be delivered on time to the right people.

Performance: As a project manager, you must hire the right people for the correct jobs. Of course, not everyone fits in the same position. At the 'Performance' step, the goal is to hire, train, and retain the perfect applicants for the processes and tasks you have.

Measurement: A business process is only effective if you can measure it. At the final stage of organizational effectiveness, you must measure and analyze your project, process, or other systems. Likewise, you must measure your organization with the correct metrics. Failing to do so will result in accurate or non-usable data.

Theoretical Framework

Goal-Freedom Alertness Theory

The Goal-Freedom Alertness Theory was developed by Kerr (1950) and it states that safe work performance is the result of psychologically rewarding work environment. Under this theory, accidents are viewed as low-quality work behaviour occurring in an unrewarding psychological climate. This contributes to a lower level of alertness. According to the theory, a rewarding psychological climate is one where workers are encouraged to participate, set sustainable goals and choose methods or safety programmes to attain those safety and health goals. They must be allowed to participate in raising and solving problems.

Heinrich et.al (1980) supports the theory by stating that workers will be safe in a positive work environment. They argue that safe performance is compromised by a climate that diverts the attention of workers. They confirm that hazards divert the workers attention during work hours and thus the diversion increases susceptibility to injury.

Distractions Theory

The proponent of the theory is Hinze (1997) and states that safety is situational. Because mental distractions vary, the responses to them may have to differ to maintain safe performance. Additionally, hazards or physical conditions with inherent qualities that can cause harm to a person may or may not be recognized by the worker and influence safety of the task. The theory applies to a situation in which recognized safety hazard or mental distractions exist and there is a well-defined work task to perform. In the absence of hazards there is little to prevent workers from completing their tasks. However in the presence of hazards, work is greatly complicated. The theory has two components, first dealing with hazards posed by unsafe physical conditions and the other dealing with a worker preoccupation with issues not directly related to the task being performed. The theory basically states that when a worker has lower probability of injury and higher level of task achievement. When a worker has a higher focus on a mental distraction, the worker has a higher probability of injury and a lower level of task achievement. To avoid injury and achieve high levels of productivity, workers must avoid mental distractions.

Petersen (1996) stated that managers must consider human capabilities from health and safety viewpoint when assigning tasks to their employees. He argues that accidents have identifiable socio-technical cause resulting in human performance. Employers should take account of their capabilities and the level of training, knowledge and experience on health and safety in the workplaces. Organizations should design human error oriented accidents prevention programs without slowing productivity or compromise performance since accidents and incidents in workplaces are unplanned and unwanted occurrences involving movement of persons, objects or materials which may result in injury, damage or loss to property or people.

Empirical Review

Eric (2015) carried out a study on the effect of occupational safety and health programmes on employee performance at Kenya Power Company limited. The main objective of the study was to examine the effect of occupational safety and health programmes on employee performance at Kenya Power Company limited. The study adopted descriptive research design inform of Survey where data was collected from across population by use of primary source for purposes of establishing the effects of occupational health and safety programs on employee performance at Kenya Power and Lighting Company. A structured questionnaire was used to collect data. A Five Point Likert Scale was used to determine the degree to which various programs are being used by departments in the company. To present and analyze the data collected by the researcher through the use questionnaires in finding out the facts in support of the statement of problem, the researcher analyzed and report the information in form of pie charts, bar graphs, percentages, continuous prose and through use of Statistical Package for Social Sciences (SPSS). Regression analysis was used to establish the effects of occupational safety and health to employee performance. The findings of the study established that occupational safety and health programs have a positive relationship with employee performance at Kenya Power Company. The findings also indicate that there is a strong relationship between health and safety programs and employee performance. The study concludes that health and safety programs have a positive effect on employee performance. It is recommended that companies should align their occupational safety programs to their business strategies.

Sikpa (2011) studied an assessment of occupational health and safety practices on job performance at the Tetteh Quarshie Memorial Hospital in Ghana. The major objective of the study was to assessment of occupational health and safety practices on job performance at the Tetteh Quarshie Memorial Hospital in Ghana. The study adopted descriptive research design inform of Survey where data was collected from across population by use of primary source. Taro Yamane was used to determine the sample size. 80 staffs responded to the questionnaire. Statistical Package for Social Sciences (SPSS) version 19 was used to analysed the data. The study found out that the current occupational health and safety practices in the hospital are inadequate, and that the management, staff, patients and other stakeholders are exposed to several risks and hazards. The study concluded that there cannot be any effective occupational safety and health practices if both the employers and employees fail to perform their respective responsibilities. Accidents are costly to the affected employees and the organization. Therefore every effort should be made in order to avoid them from happening at the workplaces.

Badakale (2012) conducted a study that sought to determine the effects of occupational health and safety policies on employee performance in Larfage (WAPCO) PLC, Ewekoro, Ogun State in Nigeria. The main objective of the study was to determine the effects of occupational health and safety policies on employee performance in Larfage (WAPCO) PLC, Ewekoro, Ogun State in Nigeria. The study adopted descriptive research design and data was collected from across population by use of primary source. Taro Yamane was used to determine the sample size. 130 staffs responded to the questionnaire. Statistical Package for Social Sciences (SPSS) version 20 was used to analysed the data. The study found the amount of time wasted during accident and cost that is ignorantly spent on health care is higher than the cost spent on planning and providing a safe working environment and a good safety policy. The study

concluded that occupational health and safety should be given a serious attention on the shop-floor bearing in mind that it is a right for the employees and required by law. The study recommended continuous improvements of occupational health and safety practices in the firm.

Jelimo (2013) carried out a study on the effects of occupational health and safety practices on employee productivity. The aim of the study was to investigate the effects of occupational health and safety practices on employee productivity. The study adopted descriptive research design and data was collected from across population by use of primary source. Taro Yamane was used to determine the sample size. 60 staffs responded to the questionnaire. Statistical Package for Social Sciences (SPSS) version 18 was used to analyzed the data. The study found out that there are occupational health and safety practices that have positive relationship with productivity of employees and include; fire prevention and protection, lighting and ventilation, personal protective equipments and good housekeeping, while chairs/tables and facilities for sitting, first aid kit and medical facility and drinking water and sanitary facilities had negative relationship. The study concluded that when an organization fully implements occupational health and safety practices improves employees' productivity. It was also realized that absence of occupational health and safety practices could easily result in absenteeism, high employee turnover, increased medical bill and insurance claim, injuries and frequent accidents. The study recommended continuous improvements of occupational health and safety practices as it greatly influences employee satisfaction, commitment, performance and productivity.

Musyoka (2014) studied the relationship between health and safety programmes and performance of manufacturing firms in Mombasa County, Kenya. The main objective of the study was to examine the impact of health and safety programmes and performance of manufacturing firms in Mombasa County, Kenya. The study adopted a descriptive research design. Both primary and secondary data were used in the study. Statistical Package for Social Sciences (SPSS) version 18 was used to analysed the data. The study found out that many of the firms had taken some health and safety measures and that they had shown positive effect on work performance. Among the four factors that were being investigated, health and safety measures, social welfare programmes, accident prevention programmes and occupational health programmes. The four factors had a positive and significant correlation with employee performance. Therefore, the implementation of health and safety programmes at the work place has a positive impact on employees' performance. The study concluded that health and safety measures at work place have a positive and significant correlation to work performance therefore each and every company should practice or implement the health and safety programmes at their work place if they are to improve performance.

Methodology

The research design chosen for this study was survey research design method. Survey research design method is a blue print and scheme that allowed the researcher to provide solution to the problem on how to get data for the study, what to study and who to study. It comprised of using well-structured questionnaire administered to the respondents in order to gather some vital, accurate and up to date information needed for the research work.

Data collected for this study were sourced from both primary and secondary data. Primary data are original data collected basically for the purpose of the research. The primary source of data for this research includes questionnaires. The Secondary data was obtained by reviewing the literature of some scholars that are related to this research and which were available in text books, journal, newspapers and internet etc.

The population of the study comprised of 199 staffs of Tonimas Nigeria Ltd and Master Energy Nig. Plc, Aba, Abia State.

Organization	Number of Staff
Master Energy Nig. Plc	89
Tonimas Nigeria Ltd	110
TOTAL	199

Taro Yamene's formular was used to get the total number of a workable sample size.

$$\text{using } n, = \frac{N}{1 + N(e)^2}$$

Where;

- n = Samples Size
- N = Population size
- l = Constant
- e = Degree of error

Thus, substituting the values in the formular

$$n = \frac{199}{1 + 199(0.0025)^2}$$

$$n = \frac{199}{1.4975}$$

$$= 132.9$$

$$= 133$$

$$\text{Sample size for Master Energy Nig. Plc} = \frac{89 \times 133}{199}$$

$$= 59.5$$

$$= 60$$

$$\text{Sample size for Tonimas Nig. LTD} = \frac{110 \times 133}{199}$$

$$= 72.5$$

$$= 73$$

Simple random sampling technique was used by the researcher in obtaining information for the research. The sampling technique provide employees the same and known chances of being nominated.

The researcher extensively used structured format of questionnaire which was formal and standardized. It followed a pattern of questions which the researcher used to obtain the required data. The questionnaire used by the researcher was in line with the research questions

as well as research objectives of the study. Five Point-Likert Scale format was adopted in the study.

Validity is the extent to which a measuring instrument on application performs the function for which it is designed. To ascertain the validity of the instrument, content validity was adopted.

Ezigbo (2007), stated that test reliability refers to the consistency of reproducibility of the result of a test to ensure reliability of the instrument, the researcher adopted a test re-test method in which the researcher distributed 10 copies of the questionnaires to the employees of the organizations understudied. That is five copies for each organization. After some days, the instrument was collected and was re-administered for the second time. The questionnaire distributed were completed and returned using Spearman Rank Order Correlation Coefficient which was found to be high, $P = 0.0988$ showing the reliability of the instrument. Then, the reliability was calculated as follows;

S/N	First average X	Second average Y	Xr	Yr	D	d ²
1	2	2	1	1	0	0
2	2	2	1	1	0	0
						$\sum d^2$

Source; Field Survey, 2018

$$\begin{aligned}
 r &= 1 - \frac{6 \sum d^2}{n(n^2-1)} \\
 r &= 1 - \frac{6(1)}{8(8^2-1)} \\
 &= 1 - \frac{6(1)}{n(64-1)} \\
 &= 1 - \frac{6}{8(63)} \\
 &= 1 - \frac{6}{504} \\
 &= 1 - 0.0119 \\
 &= 0.9881
 \end{aligned}$$

The primary data collected through the questionnaire was analyzed and presented using different descriptive and non-parametric methods. The data was presented using simple percentage table, while the hypotheses formulated was tested using correlation (Pearson). Data generated from the questionnaire were presented in frequency distribution tables and analyzed by the use of simple percentage techniques.

Decision Rule:

If the calculated is greater than the tabulated, you reject the null and accept the alternate but if otherwise reject the alternate.

Data Presentation, Analyses And Discussion

Organisation	Distributed	Percentage	Number returned	Percentage	Number not returned	Percentage
Tonimas Nigeria LTD	60	45	55	41.4	5	3.8
Master Energy Nig. Plc	73	55	65	48.9	8	6.0
Total	133	100%	120	90.2%	13	9.8%

Source: Field Survey, 2018

Table above shows that 120 (90.2%) of the questionnaire were returned and used, while 13 (9.8%) were not returned and were not used.

Data Presentation

s / n	Item Statement	SA	A	UN	D	SD	\bar{X}	sd	Remark
A	Safety management system enhance organizational effectiveness	55	48	4	4	9	4.13	1.137	Accept
B	It reduces risk and uncertainty	50	23	26	4	17	3.71	1.405	Accept
C	It helps to control hazard	75	19	17	6	3	4.31	1.052	Accept
D	It enhance corporate image	84	13	15	5	3	4.42	1.026	Accept
E	Safety management system boost organizational culture	67	13	11	16	13	3.88	1.470	Accept

Source: Field Survey, 2018

Key

\bar{X} = Mean

sd = Standard Deviation

The effect of safety management system on organizational effectiveness was examined with a mean criterion of 2.5. All the five (5) item statement on the effect of safety management system on organizational effectiveness was accepted by the respondents. This was arrived based on the fact that their respective mean score were greater than the criterion mean. All the respondents recorded a mean score range of 3.66 to 4.40. The respondents generally accepted that safety management system enhance organizational effectiveness, it reduces risk and uncertainty, it helps to control hazard, it enhance corporate image and safety management system boost organizational culture

Test of Hypothesis

Safety management system has no significant effect on organizational effectiveness

Descriptive Statistics

	Mean	Std. Deviation	N
Safety management system	3.36	1.410	166
organizational effectiveness	3.41	1.308	120

Correlations

		Safety management system	organizational effectiveness
Safety management system	Pearson Correlation	1	.842**
	Sig. (2-tailed)		.002
	N	120	120
organizational effectiveness	Pearson Correlation	.842**	1
	Sig. (2-tailed)	.002	
	N	120	120

** . Correlation is significant at the 0.05 level (2-tailed).

H_{01} : Safety management system has no significant effect on organizational effectiveness was tested using Pearson correlation. The Pearson correlation coefficient $r = 0.842$ (74.2%) which shows a strong positive relationship between dependent and independent variables. The p value = 0.002 which is lower than 0.05 which implies that the relationship is significant. Therefore, pending other statistical evidence we therefore reject the null hypothesis and accept the alternate hypothesis that safety management system has a positive significant effect on organizational effectiveness.

Discussion of Result

Based on the analysis and empirical results the study revealed that the null hypothesis was rejected, while the alternative hypothesis was accepted that safety management system has a positive significant effect on organizational effectiveness. The effect of safety management system on organizational effectiveness showed that safety management system enhance organizational effectiveness, it reduces risk and uncertainty, it helps to control hazard, it enhance corporate image and safety management system boost organizational culture. It encourages employee knowledge sharing, aid organizational performance and promote productivity. The result of this study compliments the findings of Abuga (2012) who reported that safety management system has a positive correlation with organizational growth and effectiveness.

The study found out that safety management system had a positive effect on organizational effectiveness.

The study concluded that safety management system has significant effect on organizational effectiveness. The study also submitted that significant impact of occupational health on organizational growth.

This study recommended that efforts must be focused above all on primary prevention at the workplace level. Workplaces and working environments should be planned and designed to be safe and healthy. Continuous improvement of occupational safety and health must be promoted.

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