

The effect of Occupational Health and Safety Practices on organizational productivity a case of Mumias Sugar Company in Kenya

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ABSTRACT: *Mumias Sugar Company has experienced health and safety problems reporting 1260 malaria cases and 26 road accidents in 2011. Studies on occupational health and safety practices have focused on production. The objective of this study was to investigate the effect of Occupational Health and Safety Practices on organizational productivity in Mumias Sugar Company. The study was undertaken at Mumias Sugar Company of Kakamega County in Kenya. The study was underpinned on the systems theory of accident causation and a conceptual framework. Descriptive survey design was used. Primary data was collected using questionnaires and secondary data got from the sugar company employees, internet and libraries. Reliability and validity tests were done through test-retest to test the instruments. The collected data was analyzed and presented in forms of graphs and tables. The study established that Organizations in general need to ensure that their workers are working in a safe environment so as to realize optimum productivity. These measures will in the end minimize accidents and loss of man hours thereby increasing organizational productivity. The study may be beneficial to scholars, sugar industry and other stakeholders in both policy and practice.*

Key Words: *occupational health and safety, organizational productivity, accidents, man hours*

I. INTRODUCTION

1.1 Background to the study

Occupational health and safety practices are concerned with protecting employees and other people affected by what the organization produces and does- against the hazards arising from their employment or their links with the organization. Occupational health and safety practices deal with prevention of ill-health arising from working conditions. (Armstrong, M. 2006) [1]. Occupational health and Safety could therefore be taken to mean the activities, processes, or procedural strategies to protect and promote the health and safety of workers and welfare in the context of preventing accidents and ill-health to employees while at work. It also revealed that when employees are evaluated for their safety performance, they are included to seek and implement practical safety improvement ideas. A good practice of Occupational Health and Safety management in an organization should demonstrate better task performance and citizenship behaviour which at the end of the day increases performance. The need for Occupational Health and Safety practices for every department in an organization can offer employees with a clear accepted code of rules or procedures about the safe operation of machinery, various devices and appropriate behaviours.

The twentieth century witnessed remarkable reductions in the number and rate of occupational fatalities and injuries. However, many preventable injuries and deaths still occur. There are barriers to progress in occupational injury prevention and strategies for overcoming them. In mining, the frequency of death has dramatically declined over the century. The latest figures indicate that less than 6000 worker deaths from injury occurred in 2000 (Stout, N.A, 2002) [2]. Catastrophic events have prompted increased attention, resources, and action on workplace hazards and risks, resulting in sweeping changes, including new protective laws. Science based approaches to prevention have contributed to this progress. However the case is different in Mumias Sugar Company.

1.2 Statement of the Research Problem

The many accidents occurring in Mumias Sugar Company are worrying and should be a cause of concern with the sugar Company reporting 1260 malaria cases and 26 road accidents among the company workers in the year 2011 (KESREF DIGEST, 2014) [3]. Previous studies on Occupational Health and Safety practices, found out that when an organization fully implements occupational health and safety practices employees' productivity improves. They also realized that absence of Occupational Health and Safety practices could easily result in absenteeism, high employee turnover, increased medical bill and insurance claims, injuries and frequent accidents. These studies did not consider that occupational health and safety practices affect organizational productivity. The objective of this study was to investigate the effect of Occupational Health and Safety Practices on organizational productivity in Mumias Sugar Company.

1.3 Significance of the paper

The study findings will assist the sugar industry, researchers, and policy makers to review and improve their occupational health and safety practices in their organizations. Human resource managers, Government officers, and principals will also make future decisions based on and guided by concrete knowledge backed by research findings instead of their previous common knowledge and ad hoc resolutions. Other researchers will be encouraged to conduct further research on occupational health and safety practices and employee awareness in relation to productivity in different production firms based on these findings.

1.4 objective of the research paper

The main objective of this paper was to investigate the effect of Occupational Health and Safety Practices on organizational productivity in Mumias Sugar Company.

1.5 Hypothesis

H0: There is no significance effect of Occupational Health and Safety Practices on organizational productivity.

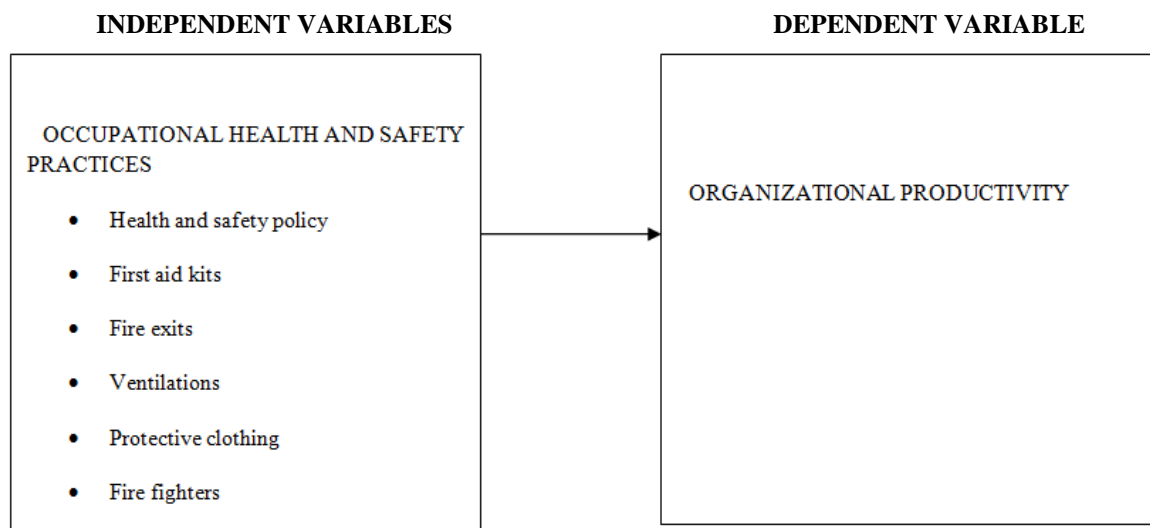


Figure.1: Conceptual Framework.

II. LITERATURE REVIEW

The study of occupational safety and health has been in existence for as long as there have been structured work environments. The early safety engineers did not focus their energies on implementing intervention strategies in the workplace; they certainly laid the foundation for current approaches to reduce occupational illness and injury. As the machine aged with James Watt and Eli Whitney during the late 1700s, employers accepted industrial injuries and deaths as part of the working conditions without considering the economical ramifications. Employees were seen as volunteers, and were plentiful and replaceable (Leigh, 1998) [4]. Although the conditions in the early factories were horrendous, with two thirds of the employees being women and children working 12-hour days, people would risk disease, dismemberment and death for employment and a method for providing food for their families. Even if an employee suffered an illness or injury, they would seldom report the sickness because serious or frequent illnesses were cause for dismissal (Heinrich, 1959) [5].

As industrial centers grew, the degradation of living conditions increased and the death rate grew. In England, for instance, the first attempt of governmental intervention began with federally run factory inspections. The results of the scrutiny by governmental inspectors (most of whom were physicians) had little impact on the health and safety of employees until the mid 1800's when the Great Factory Act was initiated.

The Great Factory Act of 1844 improved England's factory conditions somewhat, but employers still saw no economic impact of an unhealthy or a risky workplace. In fact, the families of employees who died on the job had little legal recourse. At most they had their funeral expenses covered by the employer (Heinrich, et al, 1980) [6]. In 1880, England passed the Employers' Liability Act that made it possible for employees, or their families, to sue an employer for damages. This act made the employers more cognizant of the costs of not addressing the safety of their working conditions. However, the family still had the difficult task of proving the employee (or a fellow employee) was not the cause of his own death, was not aware of the hazard, or that the employer was negligent. Factory inspections and the current laws increased employers' awareness of

occupational safety, but it was not until the worker compensation laws were passed that industry owners finally began to realize the costs associated with occupation injuries.

Hence, up to this point the most effective interventions for improving occupational safety and health appeared to be implementation of top-down governmental regulations. As Heinrich, et al. (1980) [6] point out, "Legislation is one process by which government affects safety. Judicial process is another. Together they change the impetus for safety or create a new impetus, and the impetus is defined as time, money and effort". Thus, regulations finally made it cost effective for employers to attend to working conditions that adversely affect employees' health Improving Intervention Effectiveness and safety, though they were not always in the best interest of the employee (Heinrich, et al., 1980)[6]. From the early 1900s to the present time, employers and safety practitioners adopted the philosophy of the three E's (engineering, education, and enforcement) to guide their safety-related interventions (Heinrich, et al., 1980) [6]. To make a difference in the health and safety of employees, the three Es of safety focus on: 1) developing engineering strategies that decrease the probability of an employee engaging in at-risk behaviors; 2) educating and training employees regarding equipment, environmental hazards, policies and procedures; and 3) enforcing the policies and procedures related to operating equipment, wearing proper personal protective equipment, and handling specific hazardous substances.

Dezenzo (1998) [7] asserts that like human capital, occupational health and safety is gaining increased attention in organizations. People are the common element in every organization and they can be used to further to an organization's competitive advantage. An organization is nothing without human resources. They therefore must be taken care of by ensuring their health and safety at the workplace. Workers just like any other resources require maintenance and care in order to maximize their productivity (Casio, 1996) [8]. A well-designed workplace can be expensive in the beginning because the management may need to spend money on equipment or training. However, injuries from poor working conditions can end up costing the employer more money in the end. Employers lose money when workers miss days of work due to pain or injury, and it is expensive for employers to have to hire and train new workers when other workers leave due to injury or illness.

III. RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology that was used in the research. These are research design, population of study, sampling frame, data collection instruments, reliability and validity of research instruments and data analysis.

3.2 Study Design

This study was conducted using descriptive survey design. The choice of this design was preferred on the ground that it is not only for collecting data, but also for investigating and attempting to establish the existence of certain relationships among dependent and independent variables which have already occurred. The survey method fits the study mainly because; It is suitable for studying 'the conditions or events which have already occurred but are existing in the field. It investigates and helps to establish the nature of relationship in the variables at a given point in time. It is recommended for research purposes in social sciences such as education. Surveys are excellent vehicles for the measurement of characteristics of large populations (Mugenda and Mugenda, 1999) [9]. Descriptive survey is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals, it can be used when collecting information about opinion, education or social issues. The study aimed at collecting information from respondents to find out how the effects of Occupational Health and Safety practices have impacted on the organization's productivity. Mugenda and Mugenda, (2012) [10] suggests that for descriptive research design 10-30% of the accessible population is enough.

3.3 Population Of The Study

The study was undertaken within a population of 1,755 employees who were the existing employees of Mumias Sugar Company by March 2016. Employees were sampled from those who were practicing then in the company's five departments. These are: Production department, Factory department, Personnel department, Finance department and Out growers department. The low cadre employees involved were 150 and 5 managers each from the five departments plus 5 union officials sampled from each department.

3.4 Sampling Techniques

Stratified sampling method was used followed by random sampling in order to obtain a representation of the general population. Simple random sampling was used to select employees from different departments for the study. It was preferred because it ensured that each member of the target population had an equal and independent chance of being included in the sample.

Table 3.1 Sample Size

| CATEGORY OF RESPONDENTS | TOTAL POPULATION (N) | SAMPLED POPULATION (n) | S E L E C T E D PERCENTAGE | SAMPLING TECHNIQUE |
|-------------------------|----------------------|------------------------|----------------------------|--------------------|
| LOW CADRE EMPLOYEES | 1 3 0 0 | 1 5 0 | 11.5% | Simple random |
| UNION OFFICIALS | 10 | 5 | 5 0 % | Purposive |
| T O T A L | 1310 | 1 5 5 | | |

The different categories had different percentages depending on the population of employees they had in the respective cadres.

3.5 Data Collection Procedure

Questionnaires were administered to the sampled low cadre employees from all departments. The employees were given the questionnaires to fill using the information they had without indicating their identity. Interview schedule were organized with the employees of managerial and supervisory status as well as the union officials in order to source for more information on the Occupational Health and Safety practices policy in Mumias Sugar Company. Secondary data was perused and analyzed to get the information on the policy of Occupational Health and Safety practices in the company.

3.6 Data Collection Instruments

Questionnaires with both open ended and closed ended questions were used to collect data from low cadre employees. Mugenda and Mugenda, (1999) [9] says that questionnaire is a useful tool for data collection where the sample size is big. Interview schedule were organized with the managers and supervisors as well as the union officials in order to source for more information on the Occupational Health and Safety practices policy in Mumias Sugar Company. Secondary data was sourced from the existing information in the company was of significance during the data collection process. The company library and records were the main sources of secondary data. Document analysis was used to support questionnaire and interview schedule in data collection, analysis and presentation.

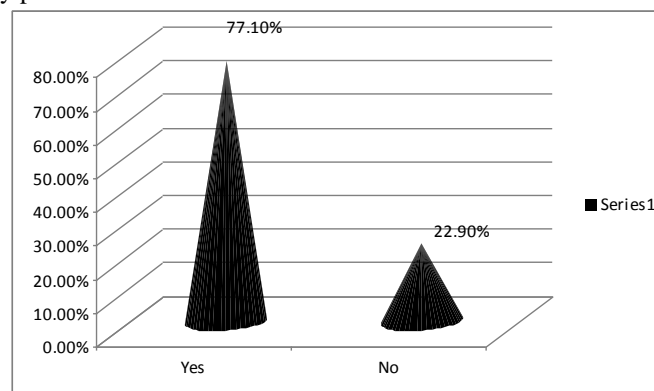
3.7 Validity

Validity is the accuracy and meaningfulness of inferences, which are based on the research results (Mugenda and Mugenda, 2012) [10]. To test the validity of the research instruments were pre-tested through a pilot study to ascertain their effectiveness in soliciting information regarding the study and their clarity to respondents. The respondents used during piloting did not constitute the final sample population. From their responses it was necessary to restructure some questionnaire items.

IV. DATA ANALYSIS

4.1 The EffectOf Occupational Health And Safety Practices On Productivity In Mumias Sugar Company.

The second objective of the study was to find out the effects of occupational health and safety practiceson productivity in Mumias Sugar Company. To achieve this objective, respondents were asked; whether highest productivity was realized in 2005 the year when all employees were sensitized and trained on occupational health and safety practices.

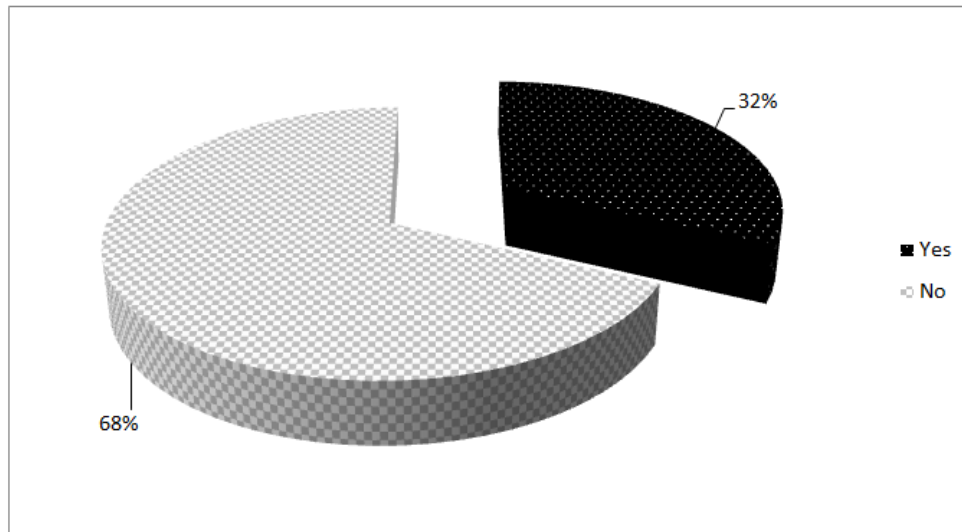


Source: Research data

Figure 4.1 Firm's Highest Productivity during the Year of employee sensitization and training on occupational health and safety practices.

The study investigated on the productivity of the company during the year of layoff. The Mumias sugar company employees were asked whether highest productivity was realized during the year of employee sensitization and training on occupational health and safety practices (2005). The results from figure 4.1 show

that 77.1% of the respondents said yes and 22.9% of them said no. The interview schedules with the managers indicated that there was highest productivity in that year. The highest productivity during the year of layoff was attributed to the fact that the employees were fit and alert on risk management and could access the remedial action in the event of an emergency. The employees had to put in a lot of effort in their production since they were motivated and therefore realized good production.



Source: Research data

4.2 Highest profit realized in the year of employee sensitization and training on occupational health and safety practices.

The researcher investigated whether the highest profit was realized in the year of year of employee sensitization and training on occupational health and safety practices (2005). The results from figure 4.2 show that 32% of the respondents said yes while 68% of them said no. It was established from the interview schedule with the managers that there was record highest profit realized in the year 2006.

This was one year after the employee sensitization and training on occupational health and safety practices programme yet there was record highest production in the year of employee sensitization and training on occupational health and safety practices. During the year 2005, the profits that were realized were not the highest due to the high cost of training employees.

Table 4.1 Firm’s highest profit year

| | F r e q u e n c y | | P e r c e n t a g e | | |
|------------------|-------------------|----------|---------------------|----------|----------------|
| 2 0 0 5 | 1 | 5 | 1 | 0 | . 0 |
| 2 0 0 6 | 1 | 0 | 8 | 7 | 2 . 0 |
| 2 0 0 8 | 2 | 7 | 1 | 8 | . 0 |
| T o t a l | 1 | 5 | 0 | 1 | 0 0 . 0 |

Source: Research data

The researcher wanted to establish which year had the highest profit in Mumias Sugar Company. The results from table 4.1 show that 10% of the respondents said the year 2005, 72% said the year 2006 while 18% of them said the year 2007. The researcher found out from the interview schedule with the production manager and from the secondary data that the firm realized the highest profit in the year 2006. This was the year after the employee sensitization and training on occupational health and safety practices. Although the year of the training had the highest production, it did not realize the highest profit. This indicates that the training exercise was an expensive venture although it catalyzed production. Highest profits in the company are being realized one year after the training exercise (KESREF Digest, 2014) [3].

V. CONCLUSION

Based on the findings of the study, the following conclusions were made: There is increased output from employees’ productivity realized during the year of occupational health and safety practices training, with

a later decline the following year after the programme was over. Organizations in general need to ensure that their workers are working in a safe environment so as to realize optimum productivity. The workers need to be made aware of the occupational health and safety practices in the organization.

5.1 Recommendations

Based on the findings and the conclusions above, the researcher made the following recommendations:

1. Company employees should also try to keep abreast with the new developments through radios and television newscasts as well as newspapers and journals to improve on their knowledge on the current trends on occupational health and safety practices in.
2. The employees should also form an occupational health and safety committee to cater for the needs of the workers.

5.2 Suggestion For Further Study

1. It is necessary to carry out research in the sugar industry in Kenya to establish the impact of occupational health and safety practices on profits margins in those firms.
2. The present study should be replicated to other sugar companies in Kenya to be able to generalize the findings.

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