

FACTORS INFLUENCING IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY: A CASE STUDY OF KENYA VEHICLE MANUFACTURERS IN THIKA

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ABSTRACT

The goal of all occupational health and safety programs is to foster a safe working environment. The importance of factors that influence implementation of occupational health and safety management programmes in a manufacturing company cannot be overruled. The study sought to find out the other factors that affect the implementation of health and safety other than labor turn over, staff morale among others. Variables discussed in these studies were training, motivation, leadership role, attitude and organizational culture. The study sought to find out their influence of occupational health and safety at K.V.M. This study provided insights to Human resource managers who would be able to communicate to the employees appropriately on health and safety issues and also identify potential risks and hazards. Policy makers will come up with new policies as a result of change due to technological advancement and other prevailing circumstances. Employees will be able to take issues of safety and health seriously to reduce injuries and diseases. Findings on the effects of training on safety and health indicated that seventy six percent said that they had been trained while eleven percent had not been trained; researcher recommends training to enhance occupational safety and health. Findings on introduction of safety incentives to mitigate the impeding factors indicated that fifty six percent of the respondents agreed that an incentive mitigates impeding factors to the implementation of safety and health. Researcher recommends that the management introduce safety incentives to motivate the employees. Finding indicated that the management implements occupational safety and health as a commitment / obligation and not as a result of external pressure according to respondents at sixty seven while eighteen respondents said the company implements occupational safety and health due to government pressure. Researcher recommends that there is more to be done on implementation of occupational safety and health. Findings indicated that the management has ensured proper communication on the information of safety and health according to seventy one percent of the respondents. Finding indicated that in event that too much work for the management and employee's occupational safety and health may be compromised according to fifteen respondents at twenty percent. The researcher recommends

that keen interest be taken and leadership roles be used especially at this critical point to avoid laxity on occupational safety and health which may have negative effects.

Key Words: *occupational health, Human resource, manufacturing, risks and hazards*

Introduction

Hazard control and prevention strategies are put in place to ensure every working man and woman is safe at work place. To reinforce this point, requirements for worker safety and health training are found in more than 100 occupational safety and health standards promulgated by occupational safety and health administration (OSHA). Other limit certain jobs assignment to persona judged competent by way of special training .Yet the merits of factor influencing provision of health and safety in workers control regulations and hazard control efforts in general have not been without question. Indeed, instances where training has been shown to be ineffective in reducing work related disabilities have been reported Tan et al. (1991). Snook, Campanelli and Hart (1978) Linnemann, et al. (1991) and at least one review has raised concerns about the worth of workplace safety programs.

In its defense, training shortcomings could reflect use of inadequate instructional techniques or situational factors that confound the learning process or its objectives. More importantly, however the notion that training is somehow exempt from the accountability demands of business operations is no longer tenable. Moreover, in appreciating adherence on training, rules imposed add extra costs on responsible employers and extra burdens on workers too, knowledge of factors that can influence success in training efforts and implementation of occupational safety and health management systems (OSH MS) would be especially important. Indeed, one could argue that faulty or bad training may have worse consequences than no training at all. It is these issues that prompted this study.

Since the year 200 the issues of employees' safety and healthcare errors have become important topics in health policy and health care practices in several countries. The problem of risks and health hazards and employee safety are critical issues facing production industries today (DeJoy, 2004). Available data world over indicate or paints a grave picture about employees safety .For instance according to (WHO,2002) it is actually estimated that each year 160 million new cases and 1.1 million deaths are associated with related diseases and work injuries. WHO estimates, also indicate that annually, 30% to 50% of workers report hazardous physical, chemical, biological and ergonomic exposures. There are 120 million occupational accidents with 200,000 fatalities occurring annually and 68 million to 157 million new cases of occupational diseases which may be caused various exposures at work. There have been a lot of serious accidents, death and even in capitation within manufacturing industries in Kenya since 2002 due to lack of health and safety (Chem, 2006). Thus, both governments and experts desire to promote employee safety as a public action in response to these problems.

At Kenya vehicle manufacturing industry construction workers are exposed to considerable hazards health risk for example dusts, fumes, noise and manual handling and yet there is often poor occupational health service provision. Historically, less effort has been directed towards health matters in this construction company in favor of the more immediate , high profile (and perhaps more easily solvable) problem of safety. Some of the reasons for this are, health is a complex issue where long term strategies are required, and benefits are not immediate and consequently difficult to demonstrate. Exposure to hazards with different health risks can be multiple and vary in nature and level. Health in its widest sense incorporates many aspects of human welfare and means, much more than simply the absence of disease. Environmental health is further defined as: Those aspects of human health, including quality life that is determined by physical, biological, social and psychological factors in the environment promotion of good health therefore requires not only public policies which support health but also creating supportive environment in which living and working conditions are safe, stimulating, satisfying and enjoyable” Schein, (1998).

Statement of the Problem

Construction workers at Kenya vehicle manufacturers are exposed to considerable hazards carrying a health risk, for example, dusts, fumes, noise and goods handling, In spite of occupational health and safety services provision. They experience occupational health and safety problems, with high rates of injuries, fatalities and incapacitation due to lack of health and safety, or lack of implementation of OSH policy (DeJoy, 2004). Despite this, the researcher did not find systematic studies that have been carried out to investigate the factors influencing implementation of occupational safety and health management systems in this industrial sector in Kenya, (O’Drea & Flin, 2003). Most research focused on outcomes such as productivity, profit, and turnover and worker satisfaction. The study sought out to find how attitude, leadership, motivation, training and organization’s safety culture affects healthy and safety. Furthermore, health and safety policies and programmes in many industries are poorly implemented raising serious concerns on the issues of staff health and safety.

Literature Review

Injury Investigations

As part of NIOSH – supported epidemiological study of workplace fatalities (Manwaring and Conroy, 1990) reported the results of on-site investigation of 55 confined –space incidents where 88 workers lost their lives. Through interviews with co-workers and company officials, data were obtained on the conditions surrounding the events, applicable company safety policy and employee training. This was augmented by information contained in reports from the medical examiners, OSHA compliance officer, responding emergency medical services personnel. Analyses of the 55 incidents to establish possible patterns to the occurrences or common factors

revealed that in only three events did workers receive any training in confined space safety. In these three cases, two supervisors and two workers died, three of whom had received the training. Further testifying to an apparent lack of training among other factors, no testing of the confined space atmosphere was not done before entry in any of the events, nor was confined spaces labeled with appropriate warning signs.

Few events gave evidence of confined-space ventilation prior to entry and no formal space entry authorization procedure was in place. Indications of the wrong type or improper use of respirators were also noted. The authors used the findings to stress the need to increase worker understanding and awareness of confined space entry through development and implementation of confined-space entry procedures and worker training. Poor implementation of training procedures was still in later reports which summarized the data gained from a greater number of confined-space fatality investigations (NIOSH, 1994).

Tan et al. (1991) interviewed 41 hospitalized patients who were being treated for hand injuries sustained at their workplaces. The interview took place shortly after the patients were admitted and gathered information on the nature and extent of the patient's training plus factors such as length of job services, description of the circumstances of the injury event. Regarding the latter, rollers, guillotines and chain saws were the machines commonly involved; most workers were unable to give a specific reason for the injury. Twenty –one patients had no job training and 20 had either formal or supervised on-the-job training of variable length. Three weeks of training was noted for the majority of workers. To determine whether training could have prevented the injury, patients who had some training were compared with those who had none in terms of the time each spent on the job before the injury occurred. The results showed little differences between the two groups. Indeed, 3 workers with training were injured on the first day and same were hurt within 12 weeks of starting their jobs as compared with eight untrained workers who injured their hands during the same period which created a disconnect .

Bryant Visser & Yoshida, (1989) collected questionnaire data from 165 hospital workers involved in ethylene oxide sterilizing work. They found from 20% to 40% of the respondents to suffer from headaches, eye/skin irritations, and sore throats attributed to the exposures. Other symptoms reported were nausea (19%) running nose (16%) shortness of breath (15%) and drowsiness (20%). Include in the questioners were items asking about the amount of training, which for the sample ranged from less than 1 hour to more than a day .In more than one third of the case included, and use of protective equipments (gloves, gowns, masks) while working with ethylene oxide. Environmental samples of ethylene oxide were collected during each sterilizer task for the 18 hospitals which employed 165 hospital workers .Correlation analysis showed amount of training time and use of protective equipments each bear an inverse relation to the prevalence of reported symptoms .however only a few of the symptoms showed significant decrease. Moreover the expected decrease in exposure levels form the use of protective clothing

did not cause users to report fewer symptoms of short-term irritation. Indeed, 80 percent of the workers still complained of one or more symptoms despite exposures with current OSHA limits.

Ergonomic Hazard Investigations

Snook, Campanelli & Hart, (1978) analyzed questionnaire returns from agents who provided data on the latest compensable occupational back injury case in their workload. A total of 191 cases were described; the data included information as to onset of back pain, previous back injuries, at time of injury along with selection and training procedures the employer was using to reduce the risk of back injury. Lifting tasks when implicated in the injury were rated in terms of percentage of population who could safely perform the same act without overexertion, and were the tasks used to supply job design or ergonomic reference data in the evaluation. The cases were separated in terms of presence or absence of various techniques of selection (medical history, low back X-rays), whether or not training in safe lifting techniques was given, and whether the jobs rated below or above the 75 percent limits of overexertion risk. Neither training nor any of the selection techniques were found to have any significant differential effect on the numbers of reported cases. Only the job load variable proved significant. The authors concluded that selection or training approaches were not effective controls for low back injuries.

Leadership Effects on the Workers Health and Well Being

Research evidence suggests that good leadership has positive effects on employee health and well-being, including decreased sick leave and disability, reports the August (2008) journal of occupational and environmental medicine (JCOEM). Kampala et al, Finland searched for studies of the effect of leadership on key measures of employee health and well being. Based on the 27 best quality studies, the review provided moderately with good leadership were 40 percent more likely to be in the highest category of job well-being (that is, with low rates of symptoms like anxiety, depression and job stress).

Good leadership was associated with a 27 percent reduction in sick leave and a 46 percent reduction in disability pensions. Some studies found that good leadership was associated with increased job satisfaction, although this evidence was relatively weak there was no evidence showing a significant effect of leadership on measures of job performance. Several characteristics of work can affect employee health. Studies have shown that factors like job control influence measurable outcomes such as sick leave. Leadership was thought to be one of the most important factors mediating the relationship between work and health. The findings support the “job well-being pyramid model” a theory suggesting that a strong foundation of leadership, healthy work environment, and good working conditions reduces worker health problems. The pyramid model may provide a useful framework for monitoring occupational health and safety within organizations. The researchers note the “relative lack” of high-quality studies targeting the association between leadership and employee health. However, the few

good studies found an important link between the role of leadership and employee job well-being.

Occupational Safety and Health is a crucial leadership area for managers in light of changes in the Occupational Health and Safety Act (2001). These changes require that Managers accept responsibility for health and safety issues and get actively involved in injury management. It is necessary to manage systems and processes that ensure a safe and secure workplace to underpin the health and safety of the employees. Without a practical and accessible OSH management systems, there is a threat to Managers /leaders' role, which also places them and other employees at potential risk of work cover fines, and more importantly, jeopardizes the safety of those who have a legal entitlement to a safe workplace.

In 2001, the joint Commission on Accreditation of Healthcare Organization (JCAHO) suggested that organization leaders implement a strategy for maintaining the effectiveness of the employee's safety and ensure responsibility for developing a safety culture that emphasizes cooperation and communication to prevent work errors that may compromise health and safety. Safety performance can be described as self-reported rate of accident and occupational injuries. Hung and Chen, (2006) have studied safety in many workplaces such as the Manufacturing, building industry, service industry and transport industry. They define safety performance as employee safety control and self-reported occupational injuries. (Wu, 2008) stated that safety performance is a global performance of safety management systems operated and measured by safety organizations, safety management, safety equipment, safety training practice, safety training evaluation, accident investigations and measures of accident statistics.

Many researches include various dimensions of safety culture (Zohar, 1980) identified eight dimensions of safety climate, including dimensions such as safety training, management attitudes and effects of safe conduct on promotion, level of risk at the workplace, status of safety officers, effects of safe conduct on social status and status of the safety committee. Toole, (2002) investigated the relationship between employees' perception of safety and organizational culture. He found the indicators to be safety management and commitment, employees' involvement, training communication and emergency response all affect the implementation of OSH. (Goodman et al.1998) points that participation and leadership are closely connected. Leadership requires strong participation base just as participation requires direction and structure of strong leadership. In this case to enhance safety and health practices and procedures, it is imperative to have proper operational leadership skills in any organization.

Effects of Motivation on Health and Safety

Motivation is the activation or energization of goal-oriented behavior it is said to be intrinsic or extrinsic; terms that are used to describe the causes for animal and human behavior. According to various theories, motivation may be rooted in the basic need to minimize physical pain and

maximize pleasure, or it may include specific needs such as eating and resting, or a desired object (Dessler, 2001).

Motivation can be studied through several broad approaches vis-à-vis content or need based theories, process theories and reinforcement theories. However, (Dessler,2001) defines motivation as the intensity of a person's desire to engage in some activity. From the above definitions some issues are brought to mind as to what starts and energizes human behavior, how those forces are directed and sustained as well as the outcomes they bring about (performance). Several factors are believed to influence a person's desire to perform work or behave in a certain way. The need – based theories explained these desires; they explained motivation primarily as a phenomenon that occurs intrinsically, or within an individual. We can widely recognize need-based theorists and particularly Maslow's hierarchy of needs.

Safety Attitude

Safety and health culture within a company is closely linked to workforce attitude in respect to Safety. They share the company's risk, accidents and incidents. (Glen don and kenna, 1995) notes that effective safety management is both functional (involving management control, monitoring, executive and communication subsystems) and humane (involving leadership, political and safety culture sub systems paramount to safety culture).The role of management and the involvement of all employees as key players in safety and health culture are important in order to cultivate the positive beliefs, practices, norms and attitudes among all parties in the company.

Building a safety culture on diversities is not easy but it has been proved that companies with good safety and health cultures have employees with positive patterns of attitude towards safety and health practices. Companies need to gather safety related information, measure safety performance and bring people together to learn how to work more safely. (Cabbons, 2005) also identified four critical indicators of safety culture as effective communication which leads to commonly understood goals and means to achieve them at all levels through Good organizational learning, whereby organizations are able to identify and respond appropriately to changes. Organizational focus upon health and safety, how much time and attention is essentially paid to health and safety. External factors, including the financial health of the organization, the prevailing economic climate, impact of regulation and how well these are managed.

Organizational Safety Culture

Safety culture and attitude is a term often used to describe the way in which safety is managed in the workplace, and often reflects “the attitudes, beliefs, perceptions and values that employees share in relation to safety”(Cox & Cox, 1991). Therefore, it's imperative that all employees and employers maintain health and safety at their workplace.

When defining safety culture some researchers focus on attitudes, where others emphasize safety culture being expressed through their behavior and work activities as noted by (Glendon , 2006) In other words, the safety culture of an organization acts as a guide as to how employees will behave in the workplace. Of course, their behavior will be influenced or determined by what behavior is rewarded and acceptable within the workplace. For example,(Clarke, 2006) state that, the safety culture is not only observed within the “general state of the premises and conditions of the machinery but in the attitudes and behavior of the employees towards safety”.

It is important to identify the perception of the organization’s safety culture as it represents a critical factor influencing multiple aspects of human performance and organizational safety. Safety culture is defined as the enduring value and prioritization of worker and public safety by each member of each group and in every level of an organization. It refers to the extent to which individuals and groups will commit to personal responsibility for safety; act to preserve, enhance and communicate safety concerns; strive to actively learn, adapt and modify (both individual and organizational) behavior based on lessons learned from mistakes; and strive to be honored in association with these values, (Cabbons ,2008). This definition combines key issues such as personal commitment, responsibility, communication and learning in ways that are strongly influenced by upper-level management, but include the behavior of everyone in the organization.

There is now a move to apply the concept of safety culture at the individual level. (Mearns, 2003) highlight that although safety culture was a concept originally used to describe the inadequacies of safety management that result in major disasters, it is interesting that the concept is now being applied to explain accidents at the individual level.

As worker’s behavior is influenced by the safety culture of an organization, such culture could become a determinant of worker injury involvement (Glendon, 2006). Although the culture of an organization may have an impact on the behavior of employees, much research has focused on the impact of more localized factors that is supervision and interpretation of safety policies.

Reason, (1998) believes in periods of good safety performance, “the best ways to stay cautious is to gather the right kind of information”, which means creating an informed culture which demands safety management to be aware of the numerous factors that have an impact on the safety systems (that is human, technical, organizational and environmental). In this sense, reason believes an informed culture definitely affects the safety of an organization.

However, (Burnman and Evans, 2008) discusses the limitations of safety and health management systems in relation to culture and show how leadership has a more direct effect on safety than management. (Barling, 2002) adds his contribution to the safety culture literature, in which he demonstrates a direct mathematical relationship with the application of Transformational Leadership and the frequency of workplace injuries. In a later development (Broadbent, 2004) showed how specific safety leadership items could assist organizations map their prevailing

safety culture and safety leadership. This development was the creation of the transformational Safety Culture and Leadership Assessment Systems.

It is important to remember that an organizations culture develops over a period of time and cannot be created instantly. “Organizations, like organisms, adapt” (Reason, 1998). Says the safety culture of an organization is developed as a result of history, work environment, the workforce, health and safety practices and management leadership. To create positive organization culture calls for a lot of patience from the management, willingness and commitment for the employees.

Research Methodology

This was case study since the focus of the research was on Kenya Motor Manufacturers. The data collection methods employed were questionnaires, interviews, observation and documentary analysis and site walk about. The target population of this study comprised workers, human resource manager and clinical officer at Kenya Motor Vehicle Manufacturers. A total of 100 respondents were sampled for the study. This study employed descriptive statistics to analyze the data.

Research Findings

Company Adoption to Occupational Safety and Health Policies

This variable was used to establish whether the company adopts occupational health and safety and the extent of adopting the same. Sixty three respondents at eighty four percent said yes while twelve respondents at sixteen percent said no. This implies that the company adopted occupational health and safety practices, policies and therefore in this area the company’s performance was excellent. This has made the workers to be motivated enough when working for the organization due to the company concern about the workers well being. The company is compliant with health and safety.

Discussions

The research established that the company implements occupational safety and health as a commitment and not as result of pressure from the Government or any other authorities according to fifty seven respondent s at sixty six percent. Research established that too much work for both the employee and the employer impede the implementation of occupational safety and health according forty five respondents at sixty percent. The researcher recommends that the management through the team leaders should enhance proper supervision on occupational safety and health.

The research established that forty two respondents at fifty six percent agreed that introduction of safety incentives would motivate the employee. Researchers recommend that the management to introduce health and safety incentives. Research established that proper investigations, reporting procedures of accidents should be done according to fifty six percent of the respondents. Researcher recommends the management to perform their duties satisfactorily. The research established that training in occupational safety and health affects its implementation at Kenya Vehicle Manufacturers Limited according forty nine respondents at sixty seven percent who agreed. This showed training is vital in implementation of occupational safety and health .Research established financial performance of the Company has direct effect on the implementation of occupational safety and health at Kenya vehicle manufacturers limited according to fifty two respondents are seventy percent.

Training focusing on health and safety

The research establishment that thirty six respondents at forty eight percent and thirteen respondents at fourteen percent strongly agreed and agreed respectively while nine respondents at twelve percent and seventeen respondents at twenty three percent strongly disagreed and agreed respectively. This showed that majority sixty seven percent agreed that training focusing on safety and health it was vital in implementation of safety and health.

Workshop for behavior/attitude change

The research established that seven of the respondents at nine percent and twenty respondents at twenty six percent strongly agreed and agreed respectively. Twenty respondents at twenty six percent and twenty eight respondents at thirty nine percent strongly disagreed and disagreed respectively. This showed that the majority at sixty five percent disagreed that workshop for behavior change is a solution to impediment to implementation of OSH. Behavior and attitude is rather individual and unless one is willing to change their attitude behavior it may be a war in futility. Change begins with an individual however in event that one does not change then change will definitely change them.

Lack of management commitment to the OSH programme

The research established that thirty five respondents at forty seven percent and twenty respondents at twenty six percent strongly agreed and agreed respectively. Five respondents at seven percent and fifteen respondents at twenty percent strongly disagree and disagree. This showed that the majority at seventy three percent agree that management commitment mitigated the factors that impede the management from implementing OSH. Management commitment is always important to enhance supervision, Provision of personal protective equipment and general adherence to OSH laws. This confirms earlier findings where the employees rated the employer/management very highly on implementation of OSH.

Making safety equipment more accessible

The research established that ten respondents at thirteen percent and fourteen respondents at nineteen percent strongly agree and agree respectively, twenty seven respondents at thirty six percent and twenty four respondents at thirty two percent strongly disagree and disagree respectively. This showed that training on health and safety attitude and organization safety adversely contribute to implementation of OSH and not that availing the safety equipment

Safety incentives to motivate workers

The research established that nine respondents at twelve percent and thirty three respondents at forty four percent strongly agreed and agreed respectively, twenty respondents at twenty seven percent and thirteen respondents at seventeen percent strongly disagreed and disagreed respectively. This showed that the majority at fifty six percent agreed that safety incentives was a solution to mitigating factors that prevent implementation of OSH. However, motivation is both intrinsic and extrinsic. The forty four percent were also intrinsically motivated. Workers motivation translates to increase production and reduced in healthcare provision and absenteeism costs.

Proper accident investigation/reporting procedures

The research established that eighteen respondents at twenty four percent and twenty four respondents at thirty two percent strongly agree and agree respectively. Fourteen respondents at nineteen percent and nineteen respondents at twenty five percent strongly disagree and agree. This showed that the majority at fifty six percent agreed and that the above variable motivated the employees and showed the strength or weakness of the leadership in respective departments within the organization. The management was put to task to do its duties well.

Proper information of OSH to workers

The research established that eleven respondents at fifteen percent and forty respondents at fifty three percent strongly agree and agree. Eleven respondents at fifteen percent and thirteen respondents at twenty one percent strongly disagree and disagree. This shows that proper information of OSH to workers mitigates the factors that impede implementation of OSH.

Budgetary allocation

The research established that ten respondents at thirteen percent and thirty two respondents, forty three percent strongly agree and agree respectively. Nineteen respondents twenty five percent and fourteen respondents at nineteen percent strongly disagree and disagree respectively. This showed that majority at fifty six percent agree that budgetary allocation mitigates the factors that impede implementation of occupational safety and health.

Summary of Findings

The findings indicated that attitude, leadership, motivation and organizational culture affect the implementation of occupational safety and health at Kenya vehicle Manufacturers. Findings on training revealed that 8 respondents at 11 percent had not received any training on health and safety. Management could not solve this by ensuring the employees possibly receive on the job training and to reinforce it to acquire the expected behavior.

Findings on company's rating on OSH 63 respondents at 84 percent rated very highly while 12 respondents at 16 percent rated lowly something should be done to reinforce good organization safety culture and discourage negative culture/attitude while employers rated the workers highly and this creates a discomfort. Findings on too much work and concentration on health and safety, 20 percent agreed which revealed that overwhelmed management and employees cannot overlook OSH. In this case supervision and responsibility must be exercised at all times.

Findings on safety incentives to motivate the workers revealed that 40 percent would want them introduced; the management can include this as part of policy in OSH to motivate the employees who will in turn increase productivity.

Conclusions

Based on the research findings, then conclusion can be made that training is an important component to the implementation of occupational safety and health besides an employee having education and relevant skills in the field of operation. Positive attitude enables one to do the right things especially where there are potential risks and hazards on the other hand, the management/leadership must carry out their roles to ensure that activities are done as expected. This will also motivate the workers and eventually all the above will translate to productivity and the organization will hold in spite of the competition storm.

Recommendations

The management should ensure that all employees are trained on safety and health and constant refresher courses due to any potential risks and advancing technology and most importantly on the job training is also efficient and cost effective. The management should also possibly consider having a safety officer to be basically in charge of safety while the clinical officer deals with health issues alone contrarily to the situation at the moment where he deals with both safety and health. This is simply because sometimes he can be overwhelmed by work and be overtaken by occupational safety and health demands. Budgetary allocation should be reviewed to cater for the rising demands at workforce, the potential hazards and general maintenance of the plant.

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