IMPACT OF OCCUPATIONAL HEALTH AND SAFETY ON WORKER PRODUCTIVITY

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ABSTRACT: This research sought to assess the impact of occupational health safety (OHS) on productivity in the Mahatma Phule Magasvargiya Sahakari Soot Girani Ltd. Peth Vadgaon (Maharashtra). The objective of the study was to explore OHS problems of different work areas and their impact on productivity. The research targeted blue collar workers. Questionnaires, interviews and observations were used as research instruments to collect data. The study found out that OHS related problems negatively affect workers' productive capacity resulting in reduced worker output. Workers develop a negative attitude and low morale towards work. The study recommends that industries should upgrade their OHS through training programmes and use up-to-date equipment.

Key words: Occupational health, safety, productivity.

INTRODUCTION

Most industries aim at maximum productivity from their workforce and equipment. There are however, a number of occupational infections and injuries affecting staff in the production departments leading to decreased employee productivity. As the duration of a person’s employment in an unpleasant environment increases, his/her fitness is compromised leading to reduced performance. Some of the tasks being done manually should be carried out mechanically. Protective clothing is used as upfront protection. Improper OHS may result in accidents, illness, and absenteeism. It therefore, becomes imperative that studies exploring the impact of OHS on worker productivity be carried out.

OBJECTIVES

1. To identify the kind of health problems that employees go through because of the type of their work.
2. To examine the impact of OHS on productivity.
3. To assess the attitude of management towards the OHS of employees.

LITERATURE REVIEW

Muchemedzi and Charamba (2006) define occupational health as a science concerned with health in its relation to work or working environment. According to Oxenburgh et al. (2004), the health and safety of all employees is closely linked to the company’s productivity in all workplaces. In most cases, occupational health safety (OHS) is largely measured by negative outcomes such as workplace injury and illness but these measures have a shortfall, for instance, a low incidence of injury does not necessarily mean that adequate safety systems and controls are in place (Health and Safety Executives, 2006). At some food factories, attention is mainly on negative outcomes.
As long as there are no serious accidents, occupational health and safety policies and practices are not carried out fully. As a result, threats to employees’ safety are not eliminated in time because accident-prone areas are not recognized and taken care of before accidents occur. Muchemedzi and Charamba (2006) explain that accidents do not arise from a single cause but from a combination of factors which act simultaneously. A potentially unsafe situation does not cause an accident until someone is exposed to it. Accidents are caused by the result of unsafe acts or practices (the human element that results from poor attitudes, physical conditions and lack of knowledge or skills to enable one to work safely). They are also caused by the result of unsafe conditions of equipment or materials.

Koopman (2001) states that accidents bring pain and suffering to the worker and his family. When it results in permanent disability, the consequences are disastrous for both the victim and the company. The victim loses his earning capacity and ability to enjoy a normal active life, and the society and company are deprived of his/her skill and contribution to production.

The 1969 Frank Bird Accident Ratio study on causes of accidents found out that 88% of accidents are caused by unsafe acts of persons, 10% are caused by unsafe mechanical or physical conditions and the remaining 2% are unpreventable. Muchemedzi and Charamba (2006) analysed the above statistics and established that the majority of accidents (98%) do not just happen. Instead, people who perform unsafe acts and create unsafe conditions cause them and therefore accidents are preventable. A local National Social Security Association (NSSA) bulletin established that most food factories do not abide by set OHS regulations. Most accidents are so minor that they have no visible injury or damage. Taking care of these minor problems results in a reduction or elimination of the major ones.

In Zimbabwe, there is a national regulation on the safety of factories (Amended Factories and Works Act Chapter 14:08) (1976). Inspections are carried out on factories, for instance on drains, pollution and any areas that are lacking in terms of the act. During an inspection, the inspector looks out for health hazards which the employer may or may not be aware of. The Factories and Works Act (1976) was amended to include the regulation that factories should renew their licenses annually. This is done to ensure that a working environment is safe. Some food factories are facing a risk with the health authorities due to dirty and degraded company environments, for example, the ferns are dusty and the paint on some of the equipment is chipped.

According to Webb (1989), a central belief in most of the occupational medicine/health promotion literature is that people perform better when they are physically and emotionally able to work and want to work which in turn leads to higher productivity. More substantial links between the implementation of health and safety programmes and their beneficial impact on a business's productivity and profits are emerging both directly (such as reduced sick pay and compensation claims) and indirectly (for example, reduced absenteeism, improved corporate reputation and reduced staff agitation).
Webb (1989) also studied a workstation change and found out an increase of 1000% in productivity within less than three months. These changes are mechanical and physical, for example a change of postures to reduce physical strain of work and use of appropriate machinery for some tasks. Improving the fit between humans and tools inherently means a more effective match, good design permits more output with less human effort (MacLeod, 1995). Improving the quality of the workplace environment promotes productivity and food companies need to undertake OHS practices that achieve this. A workstation change can increase productivity; however, it is misleading to conclude that this change results in the improvement of OHS standards. New machinery can also be hazardous to health. For instance, a noisy machine may be replaced by a new machine that is more efficient but produces dust. This shows a mere shift from one hazard to another. A workstation change can cause increased efficiency and productivity leading to an ignorance of the resultant OHS implications. It is therefore misleading to conclude that a workstation change improves OHS standards in light of the increased productivity.

According to McCunney (2001), the primary beneficial impact of occupational health and safety on productivity is reduced absenteeism. McCunney demonstrates that the health risks and failure of employees to participate in fitness and health promotion programmes are associated with higher rates of employee absenteeism. There is need for much emphasis on the employer’s participation in ensuring that OHS programmes and policies are existent. If these OHS practices are set, it is more likely that the worker participates in order to preserve his/her life. However, absenteeism may be encountered but may be completely neither unjustified on medical grounds nor attributable to unsafe conditions or hazardous events in the workplace.

It is difficult to demonstrate conclusively the extent to which business prosperity benefits from good health and safety or on the contrary, to say that prosperous businesses have good health and safety because they are able to afford it (Health and Safety Executive, 2006). However, based on available evidence, the Occupational Health and Safety Reports argue that there is clearly a vicious circle in that a healthy and happy workforce is more productive, leading to increased investment in health and safety to reduce accidents, which in turn leads to further productivity gains.

The Health and Safety Executive (2006) further explains that genuine productivity gains can be realized by those businesses that invest in high performance health and safety practices. However, the Health and Safety Executive (2006) also recognizes that there need to be a positive attitude by many organizations if they are to move on from simply attaining minimum legal compliance toward implementing the best practice of OHS. For those organizations that make the transition, the rewards are well worth the effort. In other words, when an organization is committed to OHS best practice and implements it in a properly managed manner, the result is a win-win situation that benefits both the workforce and the organization for which they work. There is need for a workplace improvement in terms of occupational health and safety for the benefit of the employer and the employee in order to increase productivity.

According to Koopman et al. (2002), presenteeism is a common concept amongst the workforce. Presenteeism is one of the major results of poor OHS practices. Some infections and illnesses are not reported to the industrial nurse. Some workers are also reluctant to seek medical attention. These workers come to work as if everything is normal but in actual fact their health and fitness is poor. This concept should be eliminated in order to increase productivity.
McCunney (2001) demonstrates that the health risks and failure of employees to participate in fitness and health promotion programmes are associated with higher rates of employee absenteeism. McCunney’s contribution can only be valid if the fitness programmes are in place.

There is need for the employer’s participation in ensuring that OHS programmes and policies are existent. If these OHS programmes are in place, it is more likely that the worker participates in order to preserve his/her life. Towers (2003) explains that it is important to empower, educate and persuade workers to exercise their powers in the protection of their OHS. Employees are left to form their own OHS committees which are not taken seriously by the management.

RESEARCH METHODOLOGY

Research design
An action research strategy that involves studying the current situation to define the health and safety problems and finding the most suitable way of solving these problems was employed. This resulted in a large descriptive study. In this study data from archives, interviews and observations was weaved together. The case study research design was chosen because it focused on typical cases experiencing OHS related problems.

Study sample
The study sampling frame consisted of 70 workers from Mahatma Phule Magasvargiya Sahakari Soot Girani Ltd. Peth Vadgaon (Maharashtra). The random sampling technique was used. The respondents or sample for the research were randomly selected from the groups of workers, production supervisors and workers in the maintenance department.

Data collection
The researchers collected both primary and secondary data based on the objectives of this study. Questionnaires were distributed with the help of production supervisors. The supervisors helped in the distribution of the questionnaires since they quickly located the respondents in their various workstations. The respondents also took the exercise seriously because of the involvement of fellow workmates.

DATA ANALYSIS AND INTERPRETATION

Table 1. Health hazards that are faced by different workers

<table>
<thead>
<tr>
<th>Hazard</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust</td>
<td>07</td>
<td>10</td>
</tr>
<tr>
<td>Noise</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>Muscle Movement</td>
<td>07</td>
<td>10</td>
</tr>
<tr>
<td>No Hazards</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100</td>
</tr>
</tbody>
</table>

As shown in Table 1, different workers are affected differently by OHS hazards due to the nature of their jobs. Table 1 depicts that 30% of the workers are affected by Noise, 10% are affected by dust, and 10% are affected by muscle movements. 50% workers said that they are not affected by any of the hazards. It can be seen from these findings that there are well defined OHS hazards that endanger employees’ health in factories.
Table 2. Health Problems faced by workers

<table>
<thead>
<tr>
<th>Health Problems</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>Headaches</td>
<td>13</td>
<td>18.6</td>
</tr>
<tr>
<td>Psychological</td>
<td>15</td>
<td>21.4</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>No Health Problems</td>
<td>28</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>100</td>
</tr>
</tbody>
</table>

The researcher found out that workers are actually infected by occupational diseases due to the nature of their duties. The numbers of workers who suffer from different OHS problems are shown in Table 2. Of the entire sample, 40% claimed to be free of any illness that is caused by their work at any given time. 20% workers are affected by respiratory problem, 18.6% workers are affected by headaches, and 21.4% workers are having psychological problems. These statistics reveal that employees’ fitness has been compromised by their occupations. When one is not healthy, his/her performance declines. A worker may become slow, inaccurate or reluctant in performing his/her duties thereby compromising efficiency of production. Productivity declines when the workforce is not healthy.

RESULTS AND DISCUSSION

It was discovered upon observation that there is no measurement of the noise produced in the factory because companies do not have instruments to determine the intensity of the noise. There is, however, another means of determining the impact of noise. If workers have to shout in order to be heard by someone at an arm’s length, the noise level is too high. It was found out from observations and interviews that protective clothing is used as forefront protection of workers from hazards. Protection of the worker is on the workers themselves and not on the sources of the hazards. Workers have dust masks that let fine particles of dust into their noses and throats.

Management’s attitude towards occupational health safety (OHS):

It is found that Management considers occupational health safety (OHS) as an important condition for high productivity. The company’s health and safety policies are posted for all employees to see, they are available hence, employees know and understand how OHS issues are supposed to be handled. Management recognizes the importance of OHS to the organization and they understand importance of safety of workers at work. They provide training to newly joined workers about health and safety while working. Management attitude towards OHS and workers was found to be positive and good.

CONCLUSIONS

The study found out that occupational health safety (OHS) practices in industries is very important to increase the workers’ performance, leading to the increase of productivity. A worker who is suffering from an occupational illness is slower and weaker; thereby, missing set targets. The morale of workers becomes low when they face such occupational illness. The general attitude of management towards OHS was found to be positive and they pay attention towards training on occupational health safety (OHS).
RECOMMENDATIONS

The study recommends the following for the food factories:
1. Machines should be used to load and off load trucks in order to eliminate musculoskeletal hazards that risk the health of loaders.
2. Hazards should be controlled at the source in order to avoid infecting workers.
3. Regular medical checkups so as to determine workers state of health should be done.
4. More training sessions must be conducted about health and safety of workers.

REFERENCES

www.dol.govt.nz/publications/research/