

Study on Safety Management in Construction Projects

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Abstract

Construction industry contributes to 11% of gross domestic products in most developing countries. However many construction activities are inherently health and safety risks such as working at height, working underground, working in confined spaces and close proximity to falling materials, handling load manually, handling hazardous substances, noises, dusts, using plant and equipment, fire, exposure to live cables and poor housekeeping. In an urban context, health and safety accidents are relatively higher due to the fact that high rise buildings remain predominant with the fast-growing complexities of domain-wide construction projects to cope with modernizing cities arena and high demand for housing, offices, services and other infrastructures due to the high urbanization. Despite its importance, therefore, construction industry is considered as being risky with frequent and high accidents rate and ill-health problems to workers, practitioners and end use. Hence it is necessary to apply safety management in construction projects.

Key Words: safety, management, construction, employee.

Introduction

A safety management system provides a systematic way to identify hazards and control risks while maintaining assurance that these risk controls are effective. Construction industry is an important part of the economy in many countries and often seen as a driver of economic growth especially in developing countries. In construction workplaces the workers are exposed to hazards of occupational diseases and injuries and the adverse effects of excessively long hours of work. Machines, plants and other sophisticated construction equipment pose danger to the

operators, who in most cases do not have prior skills for operating such machines or plants. A worker should be assigned duties in relation to his physical and mental health and skills. Further, employers should have complete control over their employees and therefore ensure adherence to safety practices. The company must comply with all provisions of safety and health regulations that pertain to the construction work itself.

Objectives of the Study

- The focus of this study lies in the health and safety of work environment during the construction process.
- The study is concerned with the management of health and safety particularly the measures that are put in place, the challenges encountered in the health and safety management and the adequacy of the enforcement mechanisms on health and safety in the construction sites.

The construction industry has earned the reputation of being a dangerous or highly hazardous industry because of the disproportionately high incidence of accidents and fatalities that occur on construction sites around the world. Internationally, construction workers are two to three times more likely to die on the job than workers in other industries while the risk of serious injury is almost three times higher. Health and safety therefore is an economic as well as humanitarian concern that requires proper management control. One of the most common myths that have plagued this industry is that health & safety comes at a cost. Construction managers tend to believe that introducing and executing measures that ensure health and safety in construction sector will lead to higher cost, and hence lower profitability. However, it has been proved that investment in construction health and safety actually increases the profitability by increasing productivity rates, boosting employee morale and decreasing attrition.

Construction safety and health management therefore deals with actions that managers at all levels can take to create an organizational setting in which workers will be trained and motivated to perform safe and productive construction work. The system should delineate

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responsibilities and accountabilities. It should also outline procedures for eliminating hazards and identifying potential hazards before they become the contributing factors to unfortunate accidents.

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The construction industry is concurrently recognized as a major economic force and one of the most hazardous industries. Accidents not only result in considerable pain and suffering but marginalize productivity, quality, time and negatively affect the environment and consequently add to the cost of construction. Considering the adverse impacts of accidents, construction health and safety management is of genuine concern to all stakeholders in the construction industry. In most developing countries, health and safety consideration in construction project delivery is not given priority, and employment of safety measures during construction is considered a burden. Health and safety has been identified as a parameter which should be used along with the additional parameters: cost, quality and time, to measure the success of projects. The reasons for considering safety and health are human factor, legislation and financial issues

Unfortunately, health, safety and the environment are often neglected on construction sites and rarely managed. Safety and health is often discussed in site management meetings as a priority, while in reality safety and health takes a low priority to budget and time discussions. A general survey in the construction industry indicates that adequate measures for health and safety in the sites have not been put in place and also various challenges are encountered in the management of health and safety in construction. This manifests itself on construction sites as numerous accidents/ injuries, health problems which result to hospitalization and absenteeism.

A number of factors having a negative impact on health and safety management in developing countries which include poor infrastructure; problems of communication due to low literacy level; unregulated practices on construction sites; adherence to traditional methods of working; non availability of equipment; extreme weather conditions; improper use of equipment and corruption. The culture of the construction industry in developing countries also does not

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promote health and safety. The practices of competitive tendering and award of most public contracts to the lowest bidder in many developing countries compels contractors to drive their prices low while cutting costs which in turn affects health and safety.

Construction sites are dangerous places, and first aid and rescue equipment should always be available. What is needed depends on the size of the site and the numbers employed, but there should be a blanket and a stretcher. On large sites with more than 200 people are employed, there should be a properly equipped first aid room. On any construction site of that size, at least one person on every shift should have been trained in first aid to a nationally recognized standard. On day -to-day works procedures, an accident register book should be kept at the site, in which all types of minor injury such as bruises, to major accidents like imputing disability and fatal should be recorded. Work in the construction industry is tough and involves much manual or physical activity. It is also hazardous and dirty and therefore good welfare facilities not only improve workers' welfare but also enhance efficiency. Welfare facilities such as the provision of drinking-water, washing, sanitary and changing accommodation, rest-rooms and shelter, facilities for preparing and eating meals, temporary housing, assistance in transport from place of residence to the work site and back, all help to reduce fatigue and improve workers' health.

Therefore health and safety measures employed on construction sites are inadequate and fail to meet the required standards. The culture and attitude of construction workers and the site supervisors about health and safety often condone risk taking and unsafe work practices. Lack of proper information and ignorance are also to blame for the poor safety measures in construction sites. For instance some workers felt that the safety equipment such as hard helmets and reinforced boots are too cumbersome and uncomfortable.

Some of the major challenges in the management of health and safety in the constructions sites included inadequate personal and protective equipment, poor maintenance of personal protective gear, lack of top management support in the management of health and safety in construction sites, inadequate enforcement mechanisms, inadequate welfare facilities, absence of

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safety and health committees, unawareness of health and safety matters among the workers and lack of equipped first aid kits on the construction sites. Welfare facilities were also noted as a big challenge since they are not adequately provided as well as personal protective equipment. Some site supervisors indicated that lack of adequate funds, lack of monitoring and evaluation, lack of personal protective equipment implementation programs among others as some of the factors that give rise to the above challenges.

Conclusion

Site managers should have a written safety policy for their enterprise setting out the safety and health standards which it is their objective to achieve. The policy should name the senior executive who is responsible for seeing that the standards are achieved, and who has authority to allocate responsibilities to management and supervisors at all levels and to see they are carried out. Construction safety policy therefore is something that must be developed by each site manager and operating company prior to starting any construction job. Once developed the development safety plan should be placed into a training program that's needed to be participated in by every site worker previous to partaking in any job found on the positioning irrespective of the roles simplicity. The absence of site meetings as established in this survey implies that workers are not given a forum learn about various risks on the sites and supervisors equally do not have opportunities to communicate important health and safety matters to the workers. Site meetings are one of the ways of sensitizing workers on their health and safety in the site and should therefore be held frequently. [5]

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