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Influencing Workers' Performance through Health and Safety Interventions

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Abstract

A study was conducted among registered construction project managers (CPMs) and general contractor (GC) members of an employers association to determine whether CPMs can and do influence workers' performance through H&S interventions. The salient findings include that CPMs do influence workers' performance through H&S and related interventions during the design, procurement, and construction processes, however, there is potential to enhance such influence. Therefore, it can be concluded that CPMs have a major role to play in terms of influencing worker performance through H&S interventions. Recommendations include that CPMs should raise client awareness with respect to worker H&S and welfare facilities.

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1. Introduction

The construction industry is one of the most labour intensive industries [1–3] and the largest employer in most countries worldwide [4, 5]. However, productivity trends in the industry have a notable effect on national productivity and on the economy as a whole [6, 7].

Since workers constitute a large part of the construction cost and the quantity of workers' hours in performing a task in construction is more susceptible to the influence of management than materials or capital are, the improvement of workers' performance should be a major and continual concern to achieve projects' objectives.

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Worker performance is thus an important factor contributing to the timely completion and success of a construction project [2].

This research seeks to enhance the Project Management Body of Knowledge (PMBOK) in the area of performance improvement, with H&S as the medium. It also seeks to be reminiscent of CPMs' influence on project parameters such as productivity and H&S, and how it may contribute to enhanced overall project performance.

2. The literature review

2.1. H&S culture and perception

A survey conducted by Smallwood and Deacon [8] concluded that H&S culture impacts H&S practices, the allocation of resources to H&S, and performance relative to H&S. Although any success will remain questionable, various national and international initiatives have endeavoured to persuade the industry to change the culture relative to H&S. Furthermore, there remain a number of specific issues and challenges, which indirectly affect workers' H&S and their performance. These include the transient nature of the workforce, competitive tendering and focus on price, one-off product where design and construction are separated, the lack of leadership and evidence of traditional management style, and a risk-taking culture [9].

2.2. Profitability, performance and productivity

Profitability is often confused with productivity. The difference between these concepts is that profitability takes into account monetary effects, while productivity relates to a real process that takes place among purely physical phenomena. Profitability, just as productivity, is also seen as a relationship between output and input, but the relationship is monetary; thus the influence of price-factors is included [10].

2.3. The construction work environment

Accidents affect the profitability of a project, and both direct and indirect costs could arise from site accidents [11]. According to Khosravi et al. [12], many attempts have been made to investigate factors that influence H&S performance on construction sites. However, previous studies have not been able to provide a holistic framework that would help CPMs address the different policy, process, personnel, and incentive aspects that may affect construction H&S, despite all the research conducted [13].

According to Lamm et al. [14], there is growing and undeniable evidence that a healthy and safe working environment can increase labour productivity, and in turn boost business profitability. However, a few issues cannot be overlooked, such as the negative outcomes, the best way to evaluate occupational H&S measures in terms of increased productivity, and their economic implications. It is also evident that issues such as a high level of cooperation between management and employees are key ingredients in terms of ensuring the success of an H&S intervention and the consequent growth in productivity.

Ergonomic deficiencies in industry are believed to be the main cause of workplace health hazards, low levels of H&S, and reduced worker productivity, and quality. Awareness is still low in developing countries, although ergonomics applications have grown significantly in developed countries. Ergonomics technology can eradicate or mitigate H&S problems in the workplace if properly utilised and improve performance. Fewer injuries result in lower medical and compensation costs, less loss of wages and workdays, and financial benefits to the organisation [15].

Site-layout planning is frequently overlooked, in spite of the importance of site space as a resource, and the attitude of engineers has been that it will be attended to as the project progresses. However, a good site layout is vital in order to promote healthy, safe, and efficient operations, minimise travel time, reduce material handling, and avoid hindering material and equipment movement, particularly on large-scale projects [16].

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