

OPTIMIZING THE SYSTEM OF WORKPLACE ERGONOMICS FOR CONSTRUCTION WORKER'S HEALTH AND SAFETY

AJAYI, O. O¹, THWALA WD² & AKANGBE D. O³

^{1,3}Department of Architecture, Ladoke Akintola University of Technology Ogbomoso, Nigeria

²Professor, Department of Construction Management & Quantity Surveying, University of Johannesburg,
Johannesburg, South Africa

ABSTRACT

Health and safety (H&S) issues exert a major effect on the competitiveness of construction industry. Construction workers experience a higher incidence rate of work related musculoskeletal disorders (WMDs) resulting in days away from work and affect the rate of productivity. Despite of technological and economic advancement the practice of construction is still affected by a high rate work related musculoskeletal disorders. The chance of being disabled by injury or serious illness is much greater than for workers in most other industrial sectors. Every construction worker is likely to be temporarily unfit to work at some time as a result of injury or health problems after working on a construction site. Work organisation and physical environment requires an appreciation and understanding of the role of planning and pre-planning of H&S to realise optimum ergonomics. This paper aims at optimising the operational system of workplace ergonomics among construction workers by emphasizing the impact of design and safe work practices associated through designing which is believed to be a source to preventing WMDs in the construction field. In order to address the ever growing impact of WMDs on construction workers, it is a vital necessity to review the operational perspectives relative to workers involvement and the impact of design on the workplace. A further benefit is the synergy between preserved environment, enhanced schedule, enhanced quality, and improved productivity. Reduced fatalities result in improved productivity and reduced cost. The paper indicates that efficient implementation of health and safety rule and policy is needed and analyses design as an ergonomic intervention to promote safe work practices in the construction field. Adopting the critical review of literature, the paper is relevant in promoting safe working place for construction workers in its emphasis on adherence to health and safety rule and policies during daily operation in ameliorating the impact on construction workers. The paper is a developmental discourse on the impact of design and construction management on construction ergonomics with an overview of promoting safe working construction site for construction workers.

KEYWORDS: Health and Safety, Construction Management, Work Related Musculoskeletal Disorders