



**HEALTH AND SAFETY RISKS ASSOCIATED WITH THE CONSTRUCTION OF  
SKYSCRAPERS IN NAIROBI CITY COUNTY, KENYA**

**OGASO,O.P. (BSc. Environmental Health)**

**Corresponding Author**

**([peterogaso@gmail.com](mailto:peterogaso@gmail.com))**

**Dr. JackimNyamari (Ph.D.)** (Department of Occupational and Environmental Health,  
Kenyatta University)

**Eng.Dr. Fidelis Kilonzo (Ph.D.)** (Department of Biosystem Engineering,  
Kenyatta University)

**ABSTRACT**

Health and safety risks in construction of skyscrapers in Kenya are an issue of interest to the practitioners, industrialists, consumers, and the government. The objectives of this study were to determine health and safety risks associated with construction of skyscrapers in Nairobi County, to determine the factors influencing implementation of health and safety measures and lastly to assess the health and safety risk management and control strategies employed in the construction of skyscrapers. A descriptive cross-sectional study design was utilized. The target population of the study was 790 workers working in skyscrapers constructions in Nairobi County. A sample size of 265 workers in skyscraper construction was selected using simple random sampling. Data was collected using semi-structured questionnaires administered through the Open Data Kit (O.D.K.) platform. Data was processed and coded in STATA version 17 for analysis. Data presentation was done using frequency tables and chats. Descriptive statistical technique that included mean and frequencies was done. Further, Ordinal logistic regression analysis was utilized to establish the predictors of the health and safety risks occurrences in construction of skyscrapers. Results shows that there numerous health and safety risks workers are exposed to in constructions of skyscrapers including unsafe handling of machinery and equipment and electrocution, poor site management, falling objects, failure to use PPEs, and unprotected edges. Gender, educational level significantly contributed to likelihood of occupation and safety risk to occur in construction of skyscrapers in Nairobi County\_Health and safety risk occurrence were statistically associated with likelihood of risk to occurs (fisher's exact  $p=0.008$ ) and age (fisher's exact  $p=0.004$ ). The results revealed that risk management and control strategies influence unlikelihood of occurrence of occupation and safety risks in construction of skyscrapers in Nairobi County.