

Effect of Engagement of Safety Professionals in Managing Construction Labor on Safety Performance

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Abstract : Safety professionals have played a crucial role in construction projects, particularly being mentioned as the major contributor to successful safety initiatives. However, their real contribution has never been properly gauged at the construction sites. To the best of author's knowledge, engagement levels involving safety initiatives for construction workers have been rarely discussed in previous research. Thus, the objectives of this research were (1) to analyze the effect of the engagement level of safety professionals in safety initiatives for construction workers on safety performance and (2) to identify significant factors that contribute to worker involvement in safety initiatives. In the survey, a total of 88 safety professionals voluntarily participated, contributing data on their level of engagement in safety programs for construction workers and the satisfaction of individuals involved in these programs. The collected data were subsequently analyzed using Pearson correlation and independent t-tests. Regarding the first objective, the Pearson correlation analysis revealed a significant relationship between the engagement levels of safety professionals and safety performance ($p < 0.001$). This finding suggests that the involvement of safety professionals in construction safety programs has a notable impact on safety outcomes. For the second objective, seven factors in the engagement of safety professionals were identified to affect safety performance, consisting of safety equipment acquisition and maintenance, safety education and training, safety promotion policy, personal motivation, personal attitudes, participation of workers in safety programs, and safety knowledge. These indicated that the contribution of safety professionals should be treated as important as other aspects, such as budget and productivity management. The findings can serve as a valuable resource for stakeholders in construction companies to design proper safety programs that allow safety professionals to fully encourage construction workers to be involved in the implementation of safety programs at the building construction project.

Keywords : safety management, safety performance, independent t-test, safety professionals

Conference Title : ICCEE 2025 : International Conference on Civil and Environmental Engineering

Conference Location : Rome, Italy

Conference Dates : February 17-18, 2025