

Lean Construction Techniques in Construction Projects of Pakistan

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Abstract : Lean construction is a philosophy adopted in the construction industry to increase the value of a project by reducing waste and improving construction productivity. Lean emphasizes on maximizing the value of a project with less expenditure. Globally, lean philosophy has received wider popularity in construction sector. Lean construction has supported the practitioners with several tools and techniques to implement at various stages of a construction project. Following the global trends, this study has investigated the lean practice in Pakistan. The level of implementation of different lean tools and techniques altogether with potential benefits experienced by its implementation in construction projects of Pakistan is analyzed. To achieve the targets, the opinion was sought by the practitioners involved in handling construction projects representing four stakeholders that are a client, consultant, contractors and material suppliers through a structured questionnaire. A total of 34 completed questionnaires were collected and then statistically analyzed. The findings of the analysis have highlighted that pull approach, work standardization, just in time, increase visualization tools, integrated project delivery method and fail-safe for quality are common lean techniques implemented in the local construction industry. While reduction in waste, client's satisfaction, improved communication, visual control and proper task management are major benefits of the lean construction application.

Keywords : lean construction, lean tools and techniques, lean benefits, waste reduction, Pakistan

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