

State-of-the-art review on benefits of applying value engineering for multi-story buildings

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Abstract

This research aims to introduce the review of the researches that covered the benefits of applying the value engineering in the construction industry specially the multi-story buildings. Multi-story buildings are part of a relatively specialized field of design and construction projects. They deal not only with a building's design and creation but also with its ongoing operation and maintenance. Because a large portion of the money and time expended by both the public and private sectors is used for construction, especially multi-story buildings, it is essential for owners and builders to think about how to optimize the balance between cost and function as they make major decisions about multistory buildings. The concept of value engineering has evolved significantly and has been expanded over the years; today, numerous standards and related manuals exist. Various engineering databases, international journals, and conference proceedings were searched. International journals were searched for relevant research papers. This paper provides perspectives on value engineering in the contemporary structural engineering context in order to frame the breadth and multiple dimensions it encompasses, to summarize recent activities on selected relevant topics, and to highlight possible future directions in research and implementations.

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