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A REVIEW OF DEVELOPED LEAN CONSTRUCTION FRAMEWORKS IN THE SRI LANKAN CONTEXT

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Abstract: There is a growing necessity to thoroughly review the developed lean construction frameworks within a Sri Lankan context because most of the developed frameworks in this country were introduced at a conceptual level and in a scattered diffused manner across various construction domains. Several scholars have underscored the lack of comprehensive frameworks encompassing the entire construction lifecycle and the absence of industry-validated processes in Sri Lanka from 2012 to 2018. After 2018, a few frameworks emerged, but they exhibit significant limitations, such as insufficient transparency, biases, and reliance on limited mono or bi-evidence case studies on lean tool implementation. This study aims to review existing lean construction frameworks developed from 2012 to 2024, identifying their benefits, shortcomings, issues, and limitations through a comprehensive literature review-based approach. As one of the pioneering review studies in this area, the summarized tabular framework demonstrates the drawbacks and loopholes while providing suggestions to overcome them. The outcomes provide new thinking perspectives for novel framework development that apply in Sri Lanka and other developing countries that share the same level of lean construction maturity and characteristics. This paper will be a foundation for determining future probable areas such as: cost overrun, time delays, quality issues, risk predictability, and stakeholder management to consider in lean construction framework development in the Sri Lankan context.

Keywords: Frameworks Review, Lean Construction, Sri Lanka.