

A Conceptual Framework of Impact of Lean on the Performance of Construction Industry

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Abstract : The rapid pace of changes in the construction industry, technological advancements, and rising costs present tremendous challenges for project managers. Project managers are under severe pressure to minimize the waste, improve the efficiency of the entire operations and the philosophy of 'lean thinking' so that 'more could be achieved with less' is becoming very popular. Though, lean management has strong roots in manufacturing industry and over the last decade lean philosophy has started gaining attention in the service industry as well. However, little has been known in the context of waste minimization and lean implementation in the construction industry and this paper deals with this important issue. The primary objective of this paper is to propose a conceptual framework for the exploration of appropriate lean techniques applicable to medium and large construction companies and measure their impact on the competitiveness and economic performance of construction companies of United Arab Emirates (UAE). To this end, a comprehensive literature review and interviews with eight project managers of medium and large construction companies of UAE have been conducted. It has been found that competitive, reduce waste and costs are critical to the construction industry. This is an ongoing research in lean management, giving project managers a practical framework for improving the efficiency of their project through various lean techniques. Originality/value: Research significance emphasizes increasing the effectiveness of the construction industry, influences the development of lean construction framework which improves lean construction practices using the lean techniques. This contributes to the effort of applying lean techniques in the construction industry. Limited publications were done in the construction industry mainly in United Arab Emirates (UAE) compared to the lean manufacturing. This research will recommend a systematic approach for the implementing of the anticipated framework within a cyclical look-ahead period and emphasizes the practical implications of the proposed approach.

Keywords : construction, lean, lean manufacturing, waste

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