

Identification of Wastes in Construction Projects: Case Study of Porto Sokhna Island Project

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Abstract

One of the main issues that impact the construction industry is the prevalence of wastes. These wastes have negative effects on the project including higher cost and need for larger inventory. One of the main tenets of lean is to eliminate these wastes in order to increase the value to the customer. This paper focuses on lean applications in construction projects, specifically on how to identify and classify wastes, and how to eliminate/reduce them. Firstly, literature review is conducted to collect the different classification of wastes in construction. This is followed by a discussion of the eight types of wastes identified in context of construction projects and an application to a real-life case study, the Porto Sokhna Project in Egypt. This is done to identify wastes that occurred and their impact as well as propose elimination/mitigation strategies. Project documents were analyzed and interviews were conducted to reach this. These wastes were then classified under eight main waste types. The effect of these wastes was then monitored and recorded in terms of cost and schedule. Finally, solutions were proposed to eliminate/mitigate the wastes.

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