

# Impact of the Shop Drawings on Accuracy of Estimated Cost of Construction Projects

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## Abstract

Meeting the project's estimated cost is a main target in construction project especially in mega projects. The objective of this paper is assessing the impact of shop drawings in meeting project cost target. A comprehensive literature reviews as well as survey for industry expert's opinions to identify that impact were carried out. About 30 factors that may effects on accuracy of the cost estimation were identified through a comprehensive literature review and were validated via structured interviews. The main finding in this research was that the shop drawings have a real impact on the cost estimation process. The results analysis based on the Pareto role showed that 8 factors out of 30 factors had the most impact factors. These factors include the following: improper planning and unavailability of cost indices average; poor design/delay in providing design; size and location of the project with inaccurate evaluation of the project time/duration. In addition to incomplete drawings/detailed design at time of tender; finishing in clear of detailed shop drawings in an early stage if it possible; design change, inadequate studying for tender documents before going out to tender. The main finding is that it is important to consider the shop drawings as a new significant factor during the cost estimation process in the early stage of the project.

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