Causes, Effects and Remedies of Cost Overrun in Construction Projects in Oman

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Abstract

Construction cost is a fundamental component of any construction project. Studies show that most of the projects suffer cost overrun worldwide. This study focused on the cost overrun in construction projects in Oman by investigating the causes, effects and suggested remedies through a literature review, case studies and field survey. The research methodology investigated this topic was carried out in three steps. The first step focused on the literature review and analysis of six projects as case studies followed by ten face to face interviews and a pilot questionnaire, and finally a modified questionnaire was prepared and distributed. Six projects from different sectors were analyzed as case studies. The face to face interviews were carried out with professionals in the construction field to explore the presence and extent of the cost overrun in Oman as well as sensing their interpretation to a pre-prepared questionnaire. This was followed by distribution of the modified questionnaire to 100 professionals in different stakeholders including clients, consultants and contractors. The collected data was analyzed using Excel Spread Sheet.

The results from the case studies showed that most of the analyzed projects experienced cost and time overruns. The questionnaire revealed that 70% of the water projects, 85.7% of the dam projects, 60% of the building projects and 38% of the road projects suffered at least 10% cost overrun. It is worth noting that 42.9% of the road projects experienced between 10-20% cost overrun. Both, case studies and questionnaire revealed that the percentage of cost overrun in road projects is more compared to the other sectors.

It was found that the main three causes of cost overrun are: (1) large number of permits are required, and due to different reasons, it is not easy to obtain and in many cases limited to specific conditions that lead to change orders and cost overrun, (2) change in scope of work, and (3) design changes due to different reasons. In addition to the extra cost, it was found that the most three important effects were: (1) delay in completion, (2) claims and disputes, and (3) difficulties to client to finance the project. Case studies also, provide that time overruns (delays) composed the most important impact of cost overrun in construction projects in Oman. The respondents replies to the suggested remedies was found in the following descending order: (1) devote sufficient time for proper feasibility study (data collection, user needs, future plans), (2) carry out thorough estimation process during design stages (conceptual, preliminary, detailed), and (3) establishment of a separate authority that is concerned with permissions and approvals to facilitate obtaining such documents.