

EFFECTIVE STRATEGIES DEALING WITH
CONSTRUCTION COST OVERRUNS:
A STUDY IN JORDAN

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DOCTOR OF PHILOSOPHY

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We hereby declare that we have checked this thesis and, in our opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Doctor of Philosophy.

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ABSTRAK

Kejayaan industri pembinaan merupakan sasaran utama pemegang taruh di mana-mana negara memandangkan ia mampu meningkatkan kualiti hidup seseorang individu mahupun komuniti. Namun, pada kebelakangan ini industri pembinaan di Jordan telah menghadapi pelbagai cabaran sehingga menjejaskan sumbangannya terhadap GDP. Industri pembinaan yang dinamik tetapi mencabar ini telah menyukarkan pengurusan kos, sehingga menyebabkan kos lebihan. Oleh itu, kos lebihan telah dianggap sebagai isu utama dalam kitaran hayat dalam projek pembinaan di Jordan. Lantaran itu, ia memerlukan perhatian serius daripada semua pihak berkepentingan untuk mencari strategi efektif agar dapat membantu meningkatkan prestasi kos. Hasil kajian literature menunjukkan bahawa kebanyakan kajian berfokus kepada factor-factor kos lebihan, namun, hanya terhadap sedikit kajian yang menjurus kepada strategi untuk meminimumkan lebihan kos dalam projek pembinaan. Oleh itu, kajian ini bertujuan untuk mengisi jurang dengan mengenalpasti strategi yang berkesan dalam menangani isu lebihan kos dalam projek pembinaan di Jordan. Lantaran itu, kajian ini akan memberi strategi efektif untuk mengurangkan isu lebihan kos dalam kitaran hayat projek. Untuk mencapai objektif kajian, kajian ini menggunakan pendekatan kualitatif dan kuantitatif untuk mengumpul data melalui soal selidik, temubual dengan pengurus projek, dan bengkel kumpulan fokus. Data yang telah dikumpul pula akan dianalisa dengan menggunakan pelbagai teknik analisa yang terkandung dalam perisian SPSS. Dapatan daripada soal selidik menunjukkan bahawa punca-punca kritikal lebihan kos adalah masalah kewangan, kelewatan bahan dan keputusan, isu reka bentuk dan kerja-kerja tambahan. Strategi yang berkesan dalam mengurangkan kos lebihan melalui analisa factor adalah kontrak dan perancangan, dan rekabentuk projek dan kewangan. Sesi temubual pula menyediakan strategi-strategi untuk mengurangkan lebihan kos pada peringkat kitar hayat projek yang berbeza iaitu peringkat perancangan, rekabentuk and pembinaan. Dapatan daripada kajian menunjukkan bahawa, penggunaan strategi untuk mengurangkan lebihan kos pada peringkat awal projek sangat menyumbang dalam pengurangan lebihan kos pada fasa pembinaan. Bengkel kumpulan fokus pula memaparkan strategi efektif untuk tujuh faktor kritikal iaitu perubahan reka bentuk yang kerap, kenaikan kos bahan api, kos pengangkutan yang tinggi, masalah pembayaran yang dihadapi oleh kontraktor, masalah kewangan pemilik, masalah pembayaran yang dihadapi oleh pelanggan dari kerajaan, dan kuantiti tambahan semasa pembinaan. Dapatan kajian mengesahkan bahawa pemilik projek memainkan peranan efektif dalam usaha mengurangkan lebihan kos memandangkan pemilik projek merupakan punca kewangan sesuatu projek. Tambahan pula, pemilik projek juga bertanggungjawab dalam pemilihan perekabentuk, jurutera perunding dan juga kontraktor. Selain itu, hasil kajian ini menyumbang untuk mengetengahkan tahap kritikal semasa kitaran hayat projek yang memerlukan rancangan dan program untuk meningkatkan kecekapannya. Tambahan pula, dapatan kajian ini boleh membantu penyelidik dan industri memahami faktor kritikal lebihan kos dan mengambil langkah-langkah proaktif untuk meningkatkan prestasi kos projek.

ABSTRACT

The success of the construction industry is the main goal of the stakeholders in any country since it improves the quality of life for individuals and the society. However, the Jordanian construction industries faces much challenges which lead to a decline of its contribution to GDP in the recent years. The construction industry in Jordan which is dynamic yet uncertain making cost management difficult, leading to cost overrun. For this reason, cost overruns have been considered as the critical factor during the construction life cycle. Serious attention is to be taken by the construction stakeholders to develop effective strategies to improve the cost performance. Past literature shows that most of the research mainly focuses on the factors of cost overruns while very few studies has been done to identify strategies to minimize the cost overrun in the construction projects. Thus, this study fills the gaps of research by identifying effective strategies to minimize the cost overrun in the construction projects. To achieve the research objectives, a mixture of quantitative and qualitative approaches for data collection which includes questionnaires, interviews with project managers, and focus group workshops has been adopted. All data collected were analyzed using SPSS software. The result from the questionnaires shows that critical causes of cost overruns are financial difficulties, materials and decisions, design issues and additional work. The interviews on the other hand, provides the strategies to minimize the cost overruns during different phases of project life cycle namely; project planning, design and construction. It is also observed that adoption of strategies to minimize cost overrun at the early stage of the project greatly minimize the cost overrun during the construction phase. On the other hand, the focus group workshop presents the effective strategies to minimize the seven critical factors of cost overruns namely frequent design changes, fuel cost increase, high transportation cost, payment problems faced by the contractor, owner's financial difficulties, payment problems faced by the client from the government, and extra quantity during construction. The finding confirms that the project owner plays an effective role in minimizing the cost overruns as the owner is the main source of funding for the project. Furthermore, the owner is also responsible for the selection of the designer, consultant and contractor. This research highlighted the critical phases of project life cycle that require sound planning and program to improve its efficiencies. Besides that, the result of this research provides sound knowledge of cost overrun and suggestions that would improve the project cost performance.

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