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Risk ranking and analysis in target cost contracts: Empirical evidence from the construction industry

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Abstract

The construction industry is often characterized by the traditional adversarial working relationships between contracting parties. There has been a strong call for applying target cost contracts to align the interest of owners and contractors together. By doing so, it aims to achieve a win-win situation under a partnering arrangement within the construction industry. Even though a multitude of research studies have been undertaken on target cost contracts (TCC) or guaranteed maximum price (GMP) contracts, not many of them have focused on the risk management and analysis of these procurement strategies. This paper aims to identify, rank and compare the key risk factors encountered with these forms of procurement based on an empirical questionnaire survey geared towards the clients, contractors and consultants in Hong Kong. Despite the limited number of completed TCC and GMP (TCC/GMP)

construction projects in Hong Kong, the chosen sample was perceived to be truly representative of the survey population. A four-level data analysis framework was applied in this paper, including descriptive statistics, Kendall's concordance test, Spearman's rank correlation test and Mann-Whitney U test. The research findings showed that the client group, contractor group and consultant group are in general agreement on the impact of individual risks. The identification of the key risk factors and their relative significance is important in the risk management of target cost contracts and guaranteed maximum price projects, which, if properly done, would enhance the value for money throughout the whole procurement process. This research study also helps various key project stakeholders to be equipped with better knowledge and understanding of TCC/GMP scheme by paying close attention to those high-risk factors and then the implementation of appropriate risk mitigation measures in a proactive manner.



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Keywords

Risk management; Risk analysis; Construction industry; Target cost contracts; Guaranteed maximum price contracts; Hong Kong

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