Performance Assessment of Construction Management Provisions in Building Projects in Bahrain

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Submitted by

Sayed Fadhel

University Number: 20042967

Supervised by

M. P. Saka

(Professor)

University of Bahrain

Kingdom of Bahrain

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Abstract

Construction industry has complexity in its nature since it involves many stakeholders as clients, contractors, regulators and others. Construction projects in Bahrain suffer from many issues and complex problems in performance such as cost and time overrun as well as many quality matters. The main aim of this study is to identify the most influential performance measures identified in existing project management literature and aggregate them in a comprehensive model. The analysis was performed targeting Building construction industry with a focus on Bahraini market peculiarities. Literature review about performance was reviewed to study previously established models as a base for adaptation and to identify the most relevant performance indicators for Building construction projects. In order to reorient the finding of the literature review with local needs a Pilot study was conducted through a scouting sample consisted of 10 questionnaires resulted the addition of two extra indicators as recommended by local experts. Subsequently, A questionnaire survey was conducted and 47 indicators were identified, categorized into 11 groups, evaluated and ranked by construction companies of the top four ranked classes according to Ministry of work classification. In this study, it was hypothesized that the underperformance of local construction in companies is due to their low perceptions of the concept of performance measurement. And that neither does the classification of the construction company nor the position of respondents affect the ranking of the Key Performance Indicators (KPI). The top five indicators agreed by all contractors were: Clients satisfaction; Profitability; End-user satisfaction; Cash flow and Cost rate. Furthermore, it was confirmed that the little awareness about the concepts of performance measurement was a major cause for the underperformance of the construction sector. Not surprisingly, a consensus of agreement among all contractors was missing as contractors vary in ranking each according to their priorities. However, to verify whether the differences among the classes of contractors were significant or not the degree of agreement between parties was determined according to ANOVA and independent t-test. Results indicate that these differences are insignificant and the proposed model can be utilized by the different contractor classes. The methodology of assessing the performance along with their analysis is examined through the use of Multi Criteria Decision Analysis (MCDA) by using Analytic Hierarchy Process (AHP). Accordingly, it can be concluded that, this study has introduced a model to measure contractor’s performance on three levels both in subjective (qualitative) and the objective (quantitative) terms. The model proposed a holistic set of project performance metrics that cover time, cost, quality, Health & safety and Planning. In addition, the model incorporated the dimensions of the BSC to represent the corporate performance; as well as responding to the many researcher’s recommendations to involve all concerned stakeholders by focusing on meeting their expectations. The results of the study contributed both to Bahraini construction and project management field of study. Further research is encouraged by expanding the scope of current research to includes the different stages of the project life cycle.