

## ABSTRACT

In making decisions about whether or not to repeat the award of a contract to an existing contractor, this oil and gas exploration company needs to review a contractor's overall performance. To achieve this, an objective Contractor Performance Measurement framework is a prerequisite, as the company must identify what they need to measure. Without any existing implementation of contractor performance measurement, it will be difficult for the company to compare the performance between all existing contractors, and it will be unable to identify the differences in strengths and weaknesses of those existing contractors. Hence, to accomplish the end result of having projects done with the least cost, in the shortest time and with the best quality, contractor performance must be properly monitored and measured.

In this research, the importance of contractor performance measurement criteria is examined through a questionnaire survey of engineers in the construction department of this Oil and Gas Company. The results of the questionnaire survey are used to develop a contractor performance measurement framework and a contractor performance measurement form suitable for use in the company under study; by ranking the relative importance index of the main factor and sub-factors. Then, the relative importance index of each main factor and its corresponding sub-factors are used as an importance score, which when combined with a weighted score produce a Contractor Performance Score. From the research, health and safety was found to be the most important criterion, followed by quality of work, timeliness of performance, cost control, commitment to company's satisfaction, management effectiveness, contractor's responsiveness, and management of subcontractors. After that, the aggregate of each sub-factor was calculated, and difference levels of performance among contractors were found. Through this analytical framework, Contractor Performance Measurement scores can be computed which would help the construction team to recognize and compare the performance of existing contractors more clearly.