ABSTRACT

Performance measurement system for supply chain management is important, this include for oil and gas company to allow management to monitor the performance and to do necessary improvement. Supply Chain Management Department at ConocoPhillips Indonesia is having a set of performance measurement named Key Performance Indicator that is produced with three functions within the department. There is fourty performance measurement matrixes used. The problem is that the existing performance matrix does not allow managers to perform straightforward analysis due to lack of prioritization to set up action plans and follow the up to achieve the required target and due to lack of information to know the true performance. The combination of both creates difficulties to the department's managers to use the limited resources as the most optimum level to get maximum result.

A different methodology implemented to improve the current system to prioritize the performance measurement matrix. Experts opinion is use to value the current performance subjectively. Fuzzy set of theory is used to make the result more objectively.

This research resulted fifteen performance matrix categorized as 'very important', and there are thirty two performance matrix categorized as 'important'. Four of the performance matrixes are having 'very poor' performance; sixteen of performance matrixes are having 'poor' performance.

This method is proven to be effective to help the management to make necessary improvement effective and efficiently.

Recommendation is given for the implementation of fuzzy set theory to be used to measure the current key performance indicator for internal purpose also implementation of actions plan to improve the 'important' and 'very important' performance matrixes with very poor performance.