PUTRI MUTIARASANI. Measuring Supply Chain Performance by SCOR (Supply chain Operation Reference) Approach in Textile Chemicals Industry. Supervised by YANDRA ARKEMAN dan TAUFIK DJATNA.

The fundamental aspects in supply chain management is performance management and continuous improvement. Measuring supply chain management is necessary because the process of supply chain not only involve internal activities of the company but also external such as supplier election and third party service provider. For that, the company require a measurement system that able to evaluate the performance of supply chain as a whole to monitor and control, and also to communicate organizational goals across functions in supply chain, to know the company positions among its competitor and to determine the improvement direction for competitive excellence.

PT XYZ is a multinational corporate that operates in textile chemical and have seven factories across the world include in Indonesia. This corporate have five divisions, which are: advanced materials, performance products, pigments-additives, polyurethanes, and textile effects. The finished product produced by PT XYZ will be distributed locally and also exported to other countries that made the supply chain very complex. In PT XYZ, there are several internal divisions that related with supply chain such as procurement, the warehouse and delivery.

The framework of the research is formulated to establish a method of supply chain performance measurement. Analysis of supply chain condition done to identify the structure and agents supply chain. Designing the method of performance measurement is done by identifying performance metric and determining each metric weight in performance measurement. Then the company do the implementation and the integration of the assessment of supply chain performance method and the formulation of performance improvement strategy in supply chain.

Data collected by some means, namely: (1) Literature study, especially related to Supply chain Management (SCM) process PT XYZ; (2) Field survey, (3) Observation, data collection through direct observation in the research locations to elucidate and to know the activity and company internal process that expected to obtain data and information related to triggering factor of change and cost-reduction in supply chain; (4) Interviews and questionnaires, in depth interview with management, to obtain information about factors that influencing and triggering changes in the textile chemical industry and supply chain performance in PT XYZ in Indonesia, which includes the strategic factors of internal and external environmental changes and the impact of the changes on PT XYZ performance. Filling out of the questionnaires done by interviews through call or by face-to-face to sharpen the results of the questionnaires and to obtain other necessary additional information in accordance with the need of the research.

Performance measurement in supply chain with SCOR model approach in PT Indokarlo Persada shows result as follow; at the metric level of performance indicate the fulfillment of order (81.2% = Good), performance delivery (81.2% = Good), conformity to the standard quality (96% = Excellent), the cycle of order
fulfillment (47% = Marginal), lead time of the order fulfillment (60% = Average), supply flexibility (71% = Good), cash to cash cycle (70% = Average), and daily inventory (43% = Marginal). The fulfillment of order, delivery performance, and conformity to standard quality affect reliability value at the level of performance attributes, while cycle and lead time of order fulfillment affect responsiveness value. Asset value influenced by cash to cash cycle and daily inventory. Supply flexibility affect flexibility value at the level of performance attribute, while the costs supply chain affect cost performance value at the level of performance attribute.

The result of measurements on the performance attribute level is as follow: Reliability (82% = Excellent), Responsiveness (55% = Average), Flexibility (71% = Good), and asset (65% = Average). While at the level of performance parameter indicates the results effectiveness (66% = Average) and efficiency (68% = Average). Overall supply chain performance point is 67% (Average). The calculation on this points to the need to improvement in order to compete on industrial chemical textile.

Based on the results of focus group discussion (FGD), concluded that improving the performance of supply chain in PT XYZ must be done with 3 tools of improvement which are quality campaign, shop-floor improvement, and cost control management. Quality campaign can improve the performance of conformity to the standard quality, while shop-floor management can improve the performance of the order fulfillment, the performance of delivery, the cycle of the order fulfillment, lead time of the order fulfillment, supply chain flexibility, cash to cash cycle, daily inventory. Cost control management can improve the performance on the parameter of the cost of supply chain.

Keywords: AHP, SCOR, Supply chain Performance.