

An investigation on supplier delivery performance by using SPC techniques for automotive industry

ABSTRACT

As about 60% of finished price of goods are allocated to raw material and purchased parts by suppliers in the chain of automotive industry, the importance of supplier management and its performance is an ongoing problem. Moreover the need of monitoring of supplier performance has been emphasized in Quality Management System of automotive industry ISO/TS16949. To meet standard requirement and also continuous improvement in business, companies need to monitor their supplier performance. Delivery and quality are two of the most important indicators of supplier evaluation. This paper introduces a statistical approach to monitor supplier performance over time by using control charts. To monitor supplier delivery performance, a statistical control chart is developed based on conceptual model of how to implement in industry. Normality test is done on data and upper and lower control limits are calculated. Data gathered from supplier of a tier 1 company and out of control signals are recognized on chart. All out of control signals are removed from control chart and updated "In control" is obtained with improved mean and standard deviation. It can be employed in the industry and should result in improvement in supplier performance over time.

Keyword: Delivery performance; Statistical monitoring; Quality Management System (QMS)