

Diagnosis and Costing Optimization on Inductors in Electrics and Electronics Industry

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ABSTRACT

The issue of quality and cost of product will be the important aspects in manufacturing industry. But generally, most organization will separate between these two but it is good chance to combine between quality and cost during production process especially for costing improvement. This work presents the application of the Mahalanobis–Taguchi system (MTS) with Time-driven activity-based costing (TDABC). Therefore, the aim of this research is to do the diagnosis process on production line in electric and electronics Company using MTS and TDABC. Mahalanobis distance (MD), which is well known in multivariate statistics through MTS which is a data analytic method for diagnosis and pattern recognition of multivariate data. From this work can state that, the higher the MD, the higher the impact of the parameter to the normal condition. TDABC is a method used to calculate the capacity cost rate multiplied by the time activity, and then MTS is the method to find out the abnormal condition of the data. By using diagnosis MTS method with ABC and TDABC the analysis of electronics manufacturing industry performance indicators, it is possible to produce accurate analysis for managerial decisions.

KEYWORDS:

Mahalanobis Taguchi method; Time-driven activity-based costing; Mahalanobis distance

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