The Evaluation of Lean Manufacturing Implementation and Their Impact to Manufacturing Performance

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Abstract

With more challenges in competition worldwide, manufacturing industry needs more active to provide high levels of performance and commitment. To win the competition through more customer satisfaction, manufacturing companies have to opt not only high skill human resources, latest technologies but also have the reliable and modern manufacturing optimization strategy. Lean manufacturing tools have been widely used by manufacturing companies to achieve these objectives. Many researchers have researched and explained the application of these different LM tools in industry that are mostly located in developed countries, very few have examined the application of these tools in developing countries (such as Indonesia). This paper aims to evaluate LM tools implementation and their impact on manufacturing performance in the Indonesian manufacturing companies. 50 questionnaires have been taken from 15 companies, only 32 were responded and only 30 items were suitable to be processed. Data processing was performed with Smart-PLS 3.0 program. All of 8 tools/indicators was found valid and reliable to represent LM tools and have a Positive and Moderate relationship with manufacturing performance (MP) with $R^2 = 40.6\%$ means variability of MP 40.6% could be explained by 8 LM tools and the rest by others factors. © Published under licence by IOP Publishing Ltd.
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