PENERAPAN LEAN SIX SIGMA DAN THEORY OF INVENTIVE PROBLEM SOLVING UNTUK MENGURANGI WASTE DAN PERBAIKAN KUALITAS DI PT. ECCO INDONESIA

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ABSTRACT

An increasing in global market competition forced PT. Ecco Indonesia to increase its production efficiency especially in the use of their resource. The main criteria of production efficiency is measured by the number of waste, which is happened in each process. More waste occurs in the process mean that more raw material needed. It will take effect in reducing company’s profit, delaying in delivery, and quality of product not match according to customer’s expectation. Therefore an approach is needed to eliminate waste and improve quality, which is using Lean six sigma.

This paper focused on finding solutions to reduce the number of waste using Lean Six Sigma methodology and Theory of inventive problem solving (TRIZ). By following the methodology (Define, Measure, Analyze, Improve, Control), Define stage is to identify waste through value stream mapping, then rank and choose detail tools using Value Stream Analysis Tool (VALSAT). In improve stage, theory of inventive problem solving (TRIZ) will be implemented to find possible solutions.

As the result, PT. Ecco Indonesia performance’s in 4 sigma level, which is the standard level of industries performance international. The biggest wastes come from defect and unnecessary inventories, which cause from injection and upper stitching process. Main problem that causing quality issues, is over roughing and 2nd injection. Solutions from TRIZ make improvement for example like implementation of light and alarm as signal when roughing program has not been change when mould has change, mix diluents with PU material, and heat the mould before setting in machine. As the result of improvement implementation, sigma level has increase to 6 sigma.

Keywords : Lean six sigma, TRIZ, shoes manufacture, and waste.