ABSTRACT

PT. ECCO Indonesia is one of company that the business in shoe manufacturing. In the manufacturing company, effectivity and efficiency are two things as a good point in the company. To achieve both of this, company need the appropriate system. Performance Indicator that was not achieved the target in PT. ECCO are the problem that related with quality and lead time. Right now, both of this is significant problem in this company.

In this research is established the method that able to reduce lead time and increase quality of product. This method is Lean Six Sigma. Methodology that used in this research is DMAIC (Define, Measure, Analyze, Improve, Control) approach. There are tools in every step of DMAIC approach that used for improve lead time parameter and quality.

For lead time parameter improvement, tools that used is Value Stream Mapping Current State and Future State. Whereas for quality parameter, tools that used is Chi Square and desing of Experiment.

From the value stream mapping that already done, the result of value added ratio before improvement was 0,43 % and after improvement was 1,01 %.

From quality analysis, the defect that dominant in production was bubbles in heel. Sigma value for bubbles in heel defect before improvement was 2,3 sigma and after improvement was 2,74 sigma. The result of improvement was get cost saving Rp. 2,350,861,248 for lead time parameter and Rp. 149,943,803 per week for quality parameter.

Keywords: Lean Six Sigma, Lead time, Quality, Cost saving.