THE EFFORT PLANNING OF QUALITY IMPROVEMENT FOR GALLON NEW DESIGN PRODUCT USING LEAN SIGMA APPROACH (CASE STUDY: PT.BERLINA, Tbk.-PANDAAN)

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Abstract

PT.Berlina Tbk is a company which concern to produce all items that is made from plastic. In the growth of their business, PT.Berlina has problems related with defect. Nowadays the company tries to improve the quality of its product which has highest defect rate that is gallon type ND. This focus is selected because the type of gallon have high sell price relative with other type of products. This research relied heavily on merging of lean thinking concept and six sigma concept that is lean six sigma. It is used to improve quality. Beside merging of 2 concept, this research also uses grey theory application for FMEA plan, so the choice of the highest priority and critical problems must be improved immediately. Big Picture Mapping, Pareto Chart, Root Cause Analysis, Cause Effect diagram, Grey Theory and Failure Mode of and Effect Analysis are tools that used in this research. They are called tools lean six sigma. These tools are used to support the result of improvement phase, it uses to determine the improvement priority. From the result of this research is obtained that the defect is the most critical waste and the result of improvement phase emphasize in a critical problem that is the minim of the additional treatment. The result of every phase of six sigma and the identification of cause effect diagram, produce the steps improvement, it gives dryer machine of plastic seed to the material regind after washing process. With this improvement it can solve this problem that relates to eliminate the happening of defect production.

Keywords: Six Sigma, Root Cause Analysis (RCA), Pareto Diagram, Grey Failure Mode and Effect Analysis (FMEA), gallon ND)