ABSTRACT

Zero defect condition is a quality level where every company needs to obtain and in order to achieve this condition company needs to apply a systematic continual improvement. In PT. King Jim Indonesia (a stationery business company) perspective, zero defect condition and the improvement of the customer satisfaction are the key to obtain its competitive advantage of the company in the open competition market.

This research will focus on quality defect study using DMAIC method (Define, Measure, Analysis, Improve and Control). In the Define stage, we will identify and select from list of products that will be improved. In this case the selected product that have to be improved is Pocket Clear Color File Base with minor defect in Bag Making Section, Kami­ire Section, Karidome Section, and Pocket After Karidome Inspection Section. In the next Measure stage, we will inspect or measure DPMO score and Sigma capability score on minor defect. In the following stage, Analysis, a 50% decrease in DPMO score is set as company objective, and inspecting root causes and defining list of ranked applicable corrective plan using Failure Mode and Effect Analysis (FMEA) will follow this stage. After the stage is completed we will move to the implementation of the selected applicable corrective plan and control the result of the improvement using control chart.

The outcome of this research show there are several minor defects that have to be improved: decrease of DPMO score and improvement of Sigma capability score. This improvement has to be applied in Bag Making section, in order to improve un-smoothed pocket and stained pocket. In Kami-ire section the improvement must implement to the scratched pocket. And in Pocket After Karidome Inspection all of three projects have to be improved: folded pocket, wrinkled pocket and scratched pocket. In order to ensure of continual improvement implementation, a scheduled evaluation have to be done in order to control implementation in the live-run company activity.

Keywords: DMAIC, Zero Defect, DPMO, Sigma Capability Score, Minor Defect, FMEA, Control Chart.