ABSTRACT

Quality is an important element that must be fulfilled by the company. This can be done by guaranteeing every consumer demand for the production can be fulfilled in accordance with the specifications and quantities. In order to meet the consumer demand for the production, the company needs to maintain the quality of the product to match the specifications expected by consumers in order to achieve customer satisfaction (consumer satisfaction). Grey fabric is a work in process fabric that has not been into the coloring process.

In 2016, recorded that PT.BIG was unable to meet the production targets for most of the period from January to October 2016. It is obtained that along the period of January to October 2016, the number of defects has exceeded the company's tolerance limit by 10% and defect floating is the defect with highest percentage. Based on that problem, this research will focus on minimizing floating defect using Six Sigma method. Moreover, DMAIC (Define, Measure, Analyze, Improve, Control) is a chosen approach in Six Sigma method. The proposed improvements include determining the interval of the Jacquard machine maintenance in weaving process, making the checksheet for machine maintenance and using the clip for the string on the pattern card.

Keywords: Grey Fabric, defect floating, Six Sigma, weaving process, CTQ, *Preventive Maintenance*