

ABSTRACT

The textile industry and textile finished products is one of the most important industries in Indonesia. One of the clothing needs of every human being is generated from the textile industry (Textile Industry and Textile Products). Quality control is one of the important indicators in a company that aims to minimize the amount of costs incurred due to defective products and can help the company if there are irregularities in the production process. Quality improvement is an important aspect of a company with the aim of increasing efficiency and productivity, meeting consumer needs, and improving the company's reputation. The many irregularities in production can affect companies to suffer losses both in terms of quality, cost, and quantity. This research was carried out to improve the quality of yarn, especially polyester yarn at PT. X by using the six sigma method through the stages of Define, Measure, Analyze, Improve, and Control. Based on the results of the analysis, a sigma value of 3.37 and a DPMO value of 30,894 were obtained, which indicates that improvements are still needed to reduce the defects that arise, so that the sigma value can be increased. Based on this research, it is recommended that companies improve the quality of sigma by investing time and money to train workers and update parts or production machines to support the production process to run well. Research on improving yarn quality should be carried out periodically at PT. X as part of the company's continuous improvement.

Keywords: Textile Industry, Quality, Proposal, Improvement, Six Sigma