

ABSTRACT

Nowadays, growth in all sectors of the Indonesian industry has increased in recent years. According to Grant Thornton Global Dynamism Index (GDI), Indonesia has occupied the 40th position in the order of business growth of around 60 leading economies. According to Kemenperin and chairman of the Association of Graphic Indonesia, one of the industries that provide a substantial contribution is the printing and graphic arts industry in East Java.

In this study we analyze the implementation of quality control, causes defective product brochures, as well as knowing the quality control measures that can be implemented based on the analysis of Six Sigma DMAIC approach.

The method used in this research is the method of mixed methods with this kind of research is the study on PT Okantara as a printing company in East Java. Sampling using production data and data on the defective product brochures PT Okantara in the period May 2013 - April 2015.

The results of this analysis indicate the performance of the production process during the month of May 2013 - April 2015 resulted in the level DPMO = 11395.2452 with sigma level is at 3.78. The root causes of the 5 factors that cause deviation by a factor method. Priority proposed repairs done on the potential causes are worth RP 859 is a factor working procedures in the corporate environment is not running properly. Based on the findings of this study, PT Okantara can consider the manufacture of SOP as guidelines for the implementation of work processes as a form of control measures so as to produce a quality product.

Keywords: *Six Sigma , Quality Control , Product Defects , DPMO , DMAIC*