

ABSTRACT

Bersama Parahiyangan Co. is one of the middle manufacture companies that produces many kinds of primus stove, oven, bottle opener, and small tray. Consumers of this company are house hold equipment stores and direct consumer. The management often sighed that there are more products that had been sent to the consumer was returned back because the products are improper with standard quality that is hoped, besides that the failed and defected products in every production process have made problems for this company. In fact, on September 2004, the amounts of defected products are more than 20 %. Defected product is a lavish thing because it means that we using the resources which have no value added. That's why, Bersama Parahiyangan Co. needs to do improvement and control to minimize defected products by finding and controlling some factors that influence the quality of their products.

Six Sigma is a method to increase and control the quality that eliminate defect straight to the root of problem and Six Sigma target is try to decrease defected products until there is no more defected product (zero defect). The stages in implementation of Six Sigma are defining, measuring, analyzing, improving, and controlling stage (DMAIC).

In this final task, only four stages of five stages in implementation of Six Sigma are done; they are defining, measuring, analyzing, and improving. At defining stage, the factors that influence the quality of 1 DP 20 stove are identified and improved. Then, measuring quality of performance at output level is done at measurement stage. After existing conditions measured, we do analyzing for finding and identifying sources that cause the quality problem in 1 DP 20 stove also we analyze the stability and process capability. At improving stage, there will be given process improvement suggestions to minimize the defect on 1 DP 20 stove.

From the measurement that has been done by using production data from March to July 2005, it will be known that the potential defect causes (Critical to Quality) are imperfect painting, scraggly shape of stove, and longer side wick, and getting the DPMO's value and the sigma capability for the process existing are :

Measurement at :	Value of DPMO	Capability of Sigma
Output Level	21633	3.5

Sigma's value and DPMO shows company performance level in controlling their quality process. The result above is not suitable with the purpose of Six Sigma method that is hoped to reach 3,4 DPMO and 6 sigma (zero defect). Based on this result, company needs to do improvement and to control quality product of 1 DP 20 stove continuously.

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Keywords : Scraggly shape of stove, DPMO, Sigma, Critical to Quality, 1 DP 20 stove