ABSTRACT

For the business competition in the current global market, quality is a reflection of an enterprise to stay alive. PT Platinum Ceramics Industry is one of companies producing ceramic products, of which good surface quality or with zero defect is much desired by customers. Quality deviations of products, however, occurred that the produced ceramics are sold to the market with quality 1 (KW A), quality 2 (KW B) and quality 3 (KW C).

This study was focused on the production of 30x30cm Murano motif ceramics by PK 1. Based upon the daily production data of March and April 2004, the average rate of KW A production was 90%, KW B 7% and KW C 3%. This might have occurred due to processes which were not/less than the specified standard, that the resulting output was inconsistent and having high variance. Therefore the raised issue was how to reduce the percentage defect using the DMAIC cycle (Define, Measure, Analyze, Improve and Control) of Six Sigma.

The results of the study are improvement on the Aplikasi process and then design a new work procedure that the cause to the defect could be readily eliminated and future defect should never reoccur.

Keywords: Six Sigma, DMAIC cycle, Defect, Sigma Capability, FMEA (Failure Mode and Effect Analysis)