

## ABSTRACT

KPBS Co. is one of the companies that move in milk Processing manufacture. They produce milk cup pasteurization with taste. Beside of that KPBS also supplied milk for other milk company. The rejected and defected products in every production process have made problems for this company. From January until september 2005, 1.12% milk cup pasteurization defected and it has made a big loss for the company. That is why, KPBS needs to control and increase some factors that influence the quality of their products.

Six Sigma is a quality control method that is systematic, scientific and every decision based on facts and data. The main principal of *Six Sigma* is to reach perfection (3.4 DPMO) with controlling the process. The stages in implementation of Six Sigma are defining, measuring, analyzing, and improving stage (DMAIC). At defining stage, the factors that influence the quality of milk cup pasteurization are identified and improved. Then, measuring quality of performance at output level is done at measurement stage. After existing conditions measured, the next stage is analysis for identifying sources that cause the quality problem in milk cup pasteurization also stability and process capability analysis. At improving stage, there will be given improvement process suggestions to minimize defect at milk cup pasteurization with Six Sigma method, end the last is controlling stage, to control the process. hoped that next time not just product quality getting better but also will increased process capability which is to eliminate the process that not give value added the product.

Based on measurement that has been done, the result is DPMO's value for all the process is 3750 and the sigma capability is 4.17. although Sigma's value and DPMO shows company performance level is upper then average of many company in Indonesia, but company still to controlling their quality process because The result above is not suitable with the purpose of Six Sigma method that is hoped to reach 3,4 DPMO (zero defects). Based on this result, company needs to do improvement continuously and controlling quality product of milk cup pasteurization continuously too.

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