

## ABSTRACT

UD. Krypton is an automotive component industry that produces casting wheel. To continue competing in market competition, the company should be able to improve quality of their products. However, along with their increased production capacity, the company still faced with the problem of defects that affect product specifications. Defective products at UD. Krypton Gama Jaya generally produced in casting and machining process. In January-April 2015 those two processes produce 2% defective products of total production, whereas today the company has a target to reduce the percentage of defective products <1% as one of the measures of quality improvement to achieve zero defect. Therefore, to improve the quality, company needs to identify handling priority of defects as systematic steps to make improvements.

As we know, there are many analysis methods that can be used to identify handling priority of defective products, such as Pareto analysis, FMEA and MAFMA. These three methods have different assessment criteria in determining the priority of a problem. In this case, the results of Pareto analysis on the casting process shows that *bopeng* was ranked first as the type of defect that must be handled immediately, but FMEA and MAFMA show that cracked and leaking becomes the top priority that must be handled immediately. In the machining process, Pareto analysis, FMEA, and MAFMA produce the same priority handling of defective product that must be handled by the company immediately, it is oversize bearing. Considering the differences in the results of these three methods, there should be an expert judgment as validating tools to prove which type of defects that must be overcome as the top priority. Furthermore, root cause analysis by fishbone diagram will be used to identify the causes of these defects, so that appropriate recommendation can be given to improve the product quality.

**Keywords** : pareto, FMEA, MAFMA, cause and effect diagram.