

## ABSTRACT

PT. Agronesia Divisi Industri Es Saripetojo Bandung is the company that produces ice blocks with a majority of consumer food and beverage industry. This company is using make to order system for their production. Ice blocks 25 kg is one of the company's products which has highest demand during 2011 that reach 1.069.758 blocks. However, the defect rate is quite high, about 1,97% of total production. Company classify waste defect into two types, namely defect leaking and defect empty. Defect empty also trigger high production lead time. In order to solve it, doing observation of the production process by using Lean Six Sigma to eliminate critical waste.

Early stage of research is Define stage by mapping VSM current state of existing production processes. From this stage is known percentage of waste is 49,44% with lead time is 119.157,4 seconds. Then, Measure stage to determine level of performance from existing process, which is 50,56% with an average value of sigma is 4,0 sigma. Distribution of questionnaires was also conducted to determine the weight of critical waste. Next, Analyze stage to identify the factors causing critical waste using Fishbone Diagram and analyze existing processes by streamlining method. The last stage is Improve stage to solve the critical waste in accordance with FMEA approach.

Based on the proposed solutions, there is a reduction from lead time to 61.347,6 seconds with a percentage of waste 2,04% of the whole processes. By implementing this proposed solutions, the company can improve the quality of production process and output of ice blocks 25 kg.

**Key words:** quality, ice blocks 25 kg, Lean Six Sigma, waste, VSM, streamlining