

## **ABSTRACT**

*CV. XYZ is a manufacturing company in the garment industry. This study focuses in production process instant veils. Bas d on the company's data, CV. XYZ cannot fullfil customer demand at appropriate time. Therefore, there is time delay on instan veil product delivery in period of 2017. In its production process there is non value-added activities, that is test stiching, fix the machine, and wait for the finished good veils for inspection which include in waiting time (waste waiting). Based on the problems that happened, it needs a design improvement to minimize waste waiting with lean manufacturing approach.*

*The first step in this study is mapping and identification the value stream mapping (VSM) and process activity mapping (PAM). The next step is to identify the caused of waste waiting with lean manufacturing tools, that is fishbone diagram and 5 Why's. The last step is 5W1H analysis for problem's description that founded in detail and decide the design improvement.*

*The result from the design improvement is line balancing with helgeson-brinie method and training and cerfitication in sewing for minimize waste waiting. From the design improvement result which has been made, there is 1837.22 s lead time with 1096.66 s value added activities.*

*Keywords: Lean Manufacturing, Value Stream Mapping, Process Activity Mapping, Waste Waiting, Line Balancing.*