ABSTRACT

UMKM Al-fathir Moslemwear is one of the home-based convection industry-scale micro businesses established since 2013 which is located in Kawalu District, Tasikmalaya City. UMKM Al-fathir Moslemwear only produces men's Muslim clothes, including koko, jasko, and gamis. In producing, Al-fathir applies a make-to-order production strategy. The problem raised, namely the achievement of the koko shirt production that has not been fulfilled because of the waste waiting for 22 minutes at the sewing stage experiencing a queue during the kneading process. Therefore, improvements need to be made to minimize waste waiting using the Lean Manufacturing approach and the Value Stream Mapping (VSM) method to map the production process accompanied by the identification of waste waiting that occurs along with the cycle time. Then from the thesis results of the analysis using Failure Mode and Effect Analysis (FMEA), the design of the selected improvement to minimize waste waiting was determined, namely by adding two units of kneading machines and two persons of kneading operator and updating the process sequence. The results of this research are visualized in the future value stream mapping with the proposed improvements can reduce the cycle time of the koko shirt sewing stage which initially had a cycle time of 2079,57 minutes to 2062,24 minutes with a difference in improvement time of 17.33 minutes and the achievement of waste waiting minimization of 84,85% which is expected to fulfilled the achievement of the production of koko shirts at UMKM Al-fathir Moslemwear.

Key word – [***Lean Manufacturing, Minimizing Waste Waiting, Value Stream Mapping, Cycle Time, Failure Mode and Effect Analysis***]