## ABSTRACT

PT. Eksonindo Multi Product Industry is a company engaged in the field of handbags manufacture, fashion and accessories. But for the moment the products are still in production continue are exsport and neosack bags only. The product will be made the object of research is the bag with brands of exsport. Production system is carried out based on consumer demand, which had previously been in the estimate by the marketing. The average production target for 2012 is the year exsport bag 12541 pcs per month, but in fact the number of bags production only reached an average 12039 pcs per month. After the identification of waste, there are four waste with the highest percentage, one of whom is the waste inventory of 19,54%.

In an attempt to manage the waste inventory, use lean six sigma methods to follow the stages of DMAI, i.e. define, measure, analyze and improve. In addition to the stages of DMAI also used tools lean process improvement for the production of bags exsport. In the define the mapping value stream and made the creation of SIPOC diagrams to illustrate the process flow that occurs. From the results of mapping the value stream current state retrieved lead time of 26 days 28767.2 seconds. The measure, carried out measurements of the initial WIP and takt time. At this stage of the analysis is analyze the causes of the occurrence waste inventory using a fishbone chart and 5 Why. Improve phase given the proposed improvement of the results analysis of the waste inventory root causes. In addition also designed value stream mapping future state to map conditions after a given proposal. The solution obtained is equitable workload with Line Balancing, job rotation and pull production system with kanban.

Key Words: Waste Inventory, Lean Six Sigma, Value Stream Mapping, The Pull system, Kanban, Line Balancing