

## **ABSTRACT**

*Manufacturing Industry is an economic activity that carries out the activity of changing a basic good mechanically, chemically, or by hand so that it becomes a finished or semi-finished product, and goods of less value into goods of higher value, which are closer to the end user. PT GMK was established in 2005 in Tangerang, Banten Province, engaged in three business fields, namely industrial automation, industrial component production, and automotive component production. The product is metal based, the main thing is metal stamping. This final project focuses on a product called HJ-1. In practice, there are often delays in the completion of production requested by the customer. in January to March PO can be fulfilled. However, in the following month from April to July there were POs that were not fulfilled. From April to July there was an increase in sales but also an increase in POs that were not fulfilled. The highest percentage of unfulfilled POs was in July at 57.64% with PO as many as 109,780 parts. The problem taken in the author's Final Project is the purchase method that is not appropriate. The purchase method can trigger the speed in doing production. Because purchases must be made if there is insufficient raw material supply for production according to customer demand. PT GMK uses the buy to order purchase method, so it does not make inventory on the next order. This is what must make PT GMK have to buy raw materials first if the supply is not sufficient.*

*The method used is the Business Process Improvement method to identify the design used. Streamlining which is a phase that aims to make business processes more efficient and effective. Economic Order Quantity is one of the methods used in determining the optimal order quantity. Capacity is a level of output of a quantity of output in a given period and is the highest possible output quantity during that time period*

*The Streamlining process is used to cut or add value to an activity and the design results show that the business process has a proposed cycle time efficiency of 55%. The existing business process has a cycle time efficiency of 48%, so that time efficiency is obtained. Then in the design process, Economic Order Quantity (EOQ) is used to find out how many orders must be purchased in one order. The result of EOQ is to purchase raw materials in one order of 3,886 units with a purchase frequency of 9 times a year in 42 days. In the design process also makes the results of the engine capacity requirements. The calculation result of the machine capacity requirement is the addition of an 80 ton Press Machine as many as four machines to complete the existing PO. And the addition of 4 operators to run the machine.*

**Keywords:** *Business Process Improvement, EOQ, buy to order*