ABSTRACT

PT. XYZ is a private company engaged in the production of medicines. PT. XYZ produces various types of medicines such as tablets, caplets, injections, liquids, semi-liquids, powders, supplements and traditional medicines.

In carrying out the production process, there are several production stages that must be passed first before entering the manufacturing stage of the medicine production process. The initial stage is making a production forecast (Forecasting) made by marketing. Then the initial materials/raw materials and packaging materials are ordered according to the forecast that has been made. After the goods arrive, the goods will be placed in the warehouse according to their type. PT. XYZ has 5 types of warehouses, namely polycello packaging warehouse, bottle packaging warehouse, secondary packaging warehouse, and initial warehouse which consists of two warehouses.

In the production process, overstock occurred in the production of drug A, which resulted in losses for the company. This happens because the demand forecasting calculations carried out by the company produce excess product remaining when compared with the company's sales data. Therefore, calculations are needed to minimize overstock that occurs in the company so that it can minimize the losses suffered by the company. To improve this condition, this research was carried out with the aim of applying the moving average method calculation and the Wagner within algorithm calculation method in order to minimize overstock in the company and increase efficiency in total costs for raw materials.

***Key words**: Moving Average, Wagner Within Algortihm, Overstock, Efficiency*