## ABSTRACT

PT. Pikiran Rakyat is a manufacturing company that produces newspaper with basic ingredients newsprint, ink and a few other supporting materials. As one strategy to keep being a market leader in the printing sector in West Java, PT. Pikiran Rakyat takes planning and control of raw materials for its production. From the observation, PT. Pikiran Rakyat have problems in the accumulation of raw materials. The purpose of this study is to determine the optimal inventory system in order to overcome the problem of accumulation of raw materials at PT. Pikiran Rakyat and minimize total inventory costs.

One of the parameters for a good inventory system is a minimum total inventory cost. Based on the calculation and analysis was done by comparing the method of EOQ (Economic Order Quantity) and POQ (Periodic Order Quantity) by using a simulation approach for close to real circumstances, the best method is obtained by EOQ method which produces optimal order quantity of 492 676 kg per one-time order. The total cost of inventory acquired amounted to 34,411,257,879,-IDR. The total cost of inventory of the company today is 47,868,722,981,- IDR, which means that the proposed policy of this inventory system can save companies up to 28.11% of the cost of inventory.

*Keywords:* EOQ (Economic Order Quantity), POQ (Periodic Order Quantity), inventory system