

ABSTRACT

Raw material inventory is the main material or component that the company stores to support the production process. The inventory of raw materials needed for the production process must always be available on time and in the amount that is appropriate to the needs. However, PT Adhi Persada Beton (APB) often orders raw materials in less than optimal quantities. The purpose of this study is to provide a raw material inventory formulation to minimize inventory costs at the APB company, recommend efficient raw material inventory management at PT Adhi Persada Beton (APB) plant sedang, Purwakarta to avoid stockouts. The method used to overcome these problems is to use the Economic Order Quantity Model Lagrange Multiplier approach. The results when using the usual Economic Order Quantity are less than optimal or exceed the limits of the policy costs set by the company, then proceed to use the Lagrange multiplier model whose results are the same as the costs emphasized by the company, namely Rp. 810,565,754.50. The conclusion using the EOQ (Economic Order Quantity) Lagrange Multiplier Model approach is proof that the method works well to meet existing constraints, while ensuring that the calculated order quantity remains optimal.

Keywords: *EOQ, Lagrange Multiplier, stockout.*