

ABSTRACT

This research aims to control *inventory* to reduce the total cost of *inventory* by considering the type of material that has a shelf life and designing a decision-making support system for *inventory* control at PT Dirgantara Indonesia (Persero). The main focus of this research is to reduce the total cost of *inventory* by applying the *continuous review* (Q, r) method. This method was chosen because it is in accordance with the characteristics of materials that have a definite lead time and are easily *expired*. The research process includes the stages of problem identification, data collection related to demand, lead time, storage cost, and expiration cost, and data processing with the *continuous review* method. The results showed that the application of this method resulted in a reorder point value of 80 units and an optimal ordering point of 91 units. With the implementation of this policy, the total *inventory* cost can be reduced from Rp 916,018,722 to Rp 410,519,592 per year, resulting in 55% savings. In *addition*, the designed decision support dashboard system is able to monitor and predict material requirements more effectively. In conclusion, this research provides an efficient solution in *inventory* management and can be adopted to improve the company's operational efficiency.

Keywords: Deteriorating material, *continuous review* (Q,r), *outdating*, *decision support system*.