

## ABSTRACT

PT Aerospace Indonesia is one of the airlines in Asia, involved in design, development, and manufacturing of aircraft. The production of Airbus Helicopters EC-725 is one of the establishments that is being done under a cooperation agreement with one of its international partners, namely Airbus Helicopters. The material procurement needed for the production process is very closely associated with the effectiveness of the production process.

The condition of being inefficient often occurs in a planning system for raw material supplies (RMN) with deterioration over time, where there are inventory footprints in terms of materials expired at high levels as an indication that inventory material policy is not optimal. Therefore, it is necessary to investigate and determine an optimal inventory policy on a system of material that undergoes a deterioration process during its lifetime based on computerized information systems management as a tool to support decision-making.

The model used in this research is the EOQ Weiss model from 1982. This model is used because of the assumption that it applies to real-world situations, especially for research objects that are perishable and experience a deterioration process over time. To improve the model's conformity, further research was conducted to develop a model with algorithms for calculating inventory footprints in terms of materials expired, the time between orders, and an algorithm for calculating reorder points. Recommendations for inventory with a model proposal capable of producing the total cost of inventory of the total cost of actual inventory is 46% from € 356,376.39 to € 193,672.09.

**Keyword:** Expired, Perishable item, EOQ Weiss, Non linear holding cost