

ABSTRACT

Nuts MSME is a food snack provider established in 2020 and carries out production according to demand needs. In carrying out production, the company finds excessive inventory problems in perishable products. Excess inventory of perishable products causes products that are not immediately sold to become rotten and unusable so the inventory has to be thrown away. Nuts MSME do not yet have a standardized inventory policy, so material supplies are often ordered in excess without considering the age of the material and product as well as customer demand. This also creates profit loss for MSMEs because inventory is wasted before it is fully sold.

This research was conducted on peanut products, then a distribution test will be carried out on the demand for peanuts. Data that has through the distribution test will be continued to the process of calculating the optimal inventory using the Periodic Review (R, s, S) approach to determine the inventory policy and the total inventory cost. The final result of the inventory policy calculation will be analyzed using sensitivity analysis to determine the effect of changes in inventory parameters on the optimal solution.s

The results showed a decrease in total inventory costs by 18.17% with a decrease in inventory outdate costs by 38.82% and a decrease in inventory shortage costs by 54.56%.

Keywords: *inventory policy, perishable, periodic review, fixed lifetime, single product*