

ABSTRACT

This study aims to analyze the inventory control of wood raw materials at PT Synergy Karya Cemerlang using the Silver-Meal method to minimize inventory costs. The problems faced by the company include overstock and stockout conditions caused by a raw material ordering system that has not yet applied a structured inventory control method. This study employed a quantitative descriptive method using data on raw material demand, ordering costs, holding costs, lead time, safety stock, and total inventory costs. Data were collected through observation, interviews, and company documentation.

The research stages included analyzing the company's existing inventory control system, calculating safety stock and the reorder point (ROP), determining the order lot size using the Silver-Meal method, and comparing the total inventory costs between the company's existing policy and the Silver-Meal method. The results showed that the Silver-Meal method generated an average lot size of 5,152.86 units with an ordering frequency of 7 times, while the company's existing policy resulted in an average lot size of 1,717.62 units with an ordering frequency of 21 times. The safety stock calculation resulted in a safety stock level of 1,247 units to anticipate uncertainty in raw material demand.

Furthermore, the total inventory cost using the Silver-Meal method was IDR 2,569,451,500, which was lower than the company's existing policy of IDR 2,587,940,845, resulting in cost savings of IDR 18,489,345 or approximately 0.71%. Therefore, the Silver-Meal method can serve as an alternative approach for determining order quantities and ordering frequency more efficiently while minimizing the total inventory cost of wood raw materials at PT Synergy Karya Cemerlang.

Keywords: Inventory Control, Wood Raw Materials, Silver-Meal, Safety Stock, Reorder Point.