

ABSTRACT

Warehouse installation is an important part of a company's operational activities in controlling stock inventory. Ineffective inventory control can lead to stockouts or overstocking, which disrupts operational processes. CV Alitex Solutions, a company engaged in the sale and maintenance of spare parts, plays a role in supporting the smooth operation of various industrial sectors. However, the company faces challenges in inventory management, particularly due to the lack of regular stock checks and the suboptimal use of historical demand data in procurement decision-making. This results in a high risk of stockouts. Based on the existing issues, the proposed solution is to design a spare part inventory policy system using the Continuous Review (s, S) and Periodic Review (R, s, S) methods to minimize the risk of stockouts at CV Alitex Solutions' warehouse facility. Spare parts will be classified using ABC analysis to produce three categories: Category A, Category B, and Category C. Spare parts in Categories A and B will be analyzed further as they contribute more significantly to consumption value and total inventory costs. The results of the proposed design using the Continuous Review (s, S) method include the reorder point (s) and maximum inventory level (S), while the proposed inventory policy design using the Periodic Review (R, s, S) method includes the review interval time (R), reorder point (s), and maximum inventory level (S). The design results show that the continuous review method is more effective in minimizing the risk of stockouts. This method reduces the number of stockouts from 3,070 units to 664 units and lowers total inventory costs from Rp323,241,115 to Rp262,629,341.

Keywords: Spare parts, Continuous Review System, Periodic Review System