

ABSTRACT

In the current era of globalization, particularly with the ASEAN-China free trade in the year 2010, companies are expected to compete in the market that they do. At present, many companies still do a stock without any planning so that it can affect the quantity of goods produced that are inconsistent with the existing demand in the market that can lead to high operational costs, particularly costs of inventory.

PT. American Standard Indonesia is categorized in a company that always produced to meet consumers purchase order from these companies and thus require a qualified inventory. PT American Standard Indonesia is engaged in the bathroom equipment, such as bathtub, showers, and others. The company produces various kinds of goods that need a good inventory planning. However, the company has the inventory issues that could result in losses to the company.

The problems that occur can be seen in Granada CCST TP 3000 B/W & Projecta CCST TP B/W that there is excess inventory and shortages in certain periods. Therefore, this study aims to plan an effective inventory control with back order policy. The parameters used in this research is forecasting data item is the result of calculations based on the demand of the previous period, the data lead time items, the data setup costs of goods/ setup, data storage costs of goods/ units, the lack of cost data, and data production rate. In addition, this study uses a decision variable is economic production quantity, reorder points, safety stock, and total inventory cost.

The Results of this research with back order policy can be seen with the determination of EPQ, safety stock, and the optimal reorder point with the anticipated shortage of inventory. In addition, the total cost of inventory with back order policy can save the cost IDR 4,410,641.12 for Granada and IDR 1,049,285.44 for Projecta.

Keywords: inventory control planning, Economic Production Quantity (EPQ), forecasting, total inventory costs, back order policy.