ABSTRACT

BM PT. XYZ is a fixed supplier of XYZ pharmacies in Bandung. The managed products are divided into the categories of prescripted drugs, OTC drugs, Limited OTC drugs, supplements, customer goods, and Medical equipment. In actual condition, BM PT XYZ has inventory policy by applying fixed order interval. However, the reorder point and maximum inventory levels do not have a standard standard yet. Consequently the process of refilling the inventory becomes inefficient and leads to overstocks in the supplement product category and daily requirements that generate high total inventory cost. This study was conducted to provide the proposed inventory policy on supplement and daily needs product category. Research begins by conducting distribution tests on demand data. A total of 78% of the products are normal distribution and 22% are poisson distribution. Then we will analyze ADI-CV to see the demand pattern and get 72% lumpy pattern, 24% erratic pattern, and 4% slow moving pattern. The results of the distribution and the demand patterns that are owned into consideration for the forecasting of demand. To forecast the request using monte carlo simulation the calculation result will be entered to perform the calculation of Periodic Review method (R, s, S). The calculation result shows that the proposed condition can reduce the total cost of inventory cost by 46% lower than the actual cost with the savings of Rp Rp42,828,689.47.

Key words: inventory, overstock, ADI-CV, monte carlo simulation, periodic review (R,s,S).