

# CHAPTER VI

## CONCLUSIONS AND SUGGESTIONS

### 6.1 Conclusions

The conclusions of this study are:

1. The ADI-CV classification consists of two stages, namely the CV classification and ADI classification. CV classification is composed of six classes. Furthermore, class 1 and 2 show a range of standard deviation ratios with a low average consumption rate from 1 with a value range of 0 to 0.499. So, classes 1 and 2 are the main focus in this study with a total spare part of 92 items—the ADI classifications of two categories. In class 1, the value of the ordering interval is in the range of 0 to 0.74 ( $<0.75$ ) that called fast-moving. Whereas in class 2, the value of the order interval is in the range of 0.75 to 2 ( $>0.74$ ) that got slow-moving. The difference between the two is the period of decision making to replenishment, whether to place an order immediately when the inventory level reaches the reorder point position or wait for the review time. Therefore, for classes 1 and 2, smooth (fast-moving) and slow-moving, the Periodic Review (T, s, S) System policy can be used.
2. The total ordering costs are in the current policy is Rp220.215.592 , and the total ordering cost for the proposed policy is Rp70.263.979 . The cost of ordering and purchasing spare parts can be reduced by 68,09% due to the order interval and the reorder point. The holding costs, there was a decrease in the expenses of 74,40% of the actual values. Then, the existing holding cost is Rp795.971.244, and the proposed holding cost is Rp201.966.471. The reduction occurs because the maximum inventory parameter obtained is smaller than the original value of 80,92% from the actual price. The total inventory cost calculated using the Periodic Review (T, s, S) theoretically is Rp1.016.186.836. The charge of 73,21% much lower than the current policy at PT Semen Padang, which is Rp743.956.386. Using the proposed

inventory policy, which is Periodic Review (T, s, S), PT Semen Padang has saved money potential as much as Rp206.894.403 of the total inventory costs in the current policy. Besides saving money for inventory policy, the Periodic Review (T, s, S). This policy also optimizes the service level value to 94% for the general. This value is obtained from determining the Min-Max value to meet the demand for emergency spare parts to no backorder.

## 6.2 Suggestion

Based on the calculation results, a condition where the T value is less than L. If allowed to continue, this condition can result in a minus value inventory. Therefore, for a lower T condition, further action is needed to anticipate minus suppliers.

