CHAPTER VI
CLOSING

This chapter consists of the conclusions of this research and suggestions for future research.

6.1 Conclusions

The conclusions obtained based on the results of this research are as follows:

1. PT Semen Padang is grouping spare parts based on the speed of use but does not yet have a definite calculation method, just based on the experience of warehouse laborers. By using the FNS classification, spare parts are grouped into three classifications based on the percentage consumption rate of spare parts, with the F (fast-moving) classification consisting of 40 spare parts, the N (normal-moving) classification consisting of 46 spare parts, and S (slow-moving) consisting of 170 spare parts.

2. The model Q probabilistic inventory system contains three decision parameters regarding order lot size (q_0), reorder point, and safety stock. These three parameters have fixed values so that they can be used to determine when spare parts will be ordered and how many spare parts will be ordered. Using this model, the amount of inventory held decreased from 2490 units in the actual condition to 1251 units in the proposed condition, and inventory shortages decreased from 670 units in the actual condition to 49 units in the proposed condition. It indicates that the potential overstock and stockout problem can be minimized. In addition, using this model can save a holding cost of 71.53% or Rp65,199,742 and a shortage cost of 42.79% or Rp4,832,825.

3. The proposed spare parts inventory control using the model Q probabilistic in the backorder case is only carried out on fast-moving spare parts, with a total inventory cost savings are 45.55% or Rp1,788,061,893.

6.2 Suggestions

The suggestion given so that further research can be better is that future research is expected to consider changes in prices for spare parts and the condition of spare parts when they are received at the warehouse. In addition, it is also suggested that further research can be carried out on how to implement a spare parts inventory control system in the form of an SOP.