CHAPTER VI
CONCLUSION AND SUGGESTION

This chapter contains conclusions from the results of research conducted and suggestions for future research.

6.1 Conclusion

The conclusions based on the data processing results and the objectives formulated in this research can be explained as follows:

1. Inventory control problems experienced by PT XYZ are the frequent occurrence of inventory shortages due to the company does not have standard parameters in inventory control and the potential for overstock to occur. This shortage can be met by reordering or known as emergency orders. Grouping spare parts inventory using the FNS classification and focusing on the fast-moving category resulted in 52 spare parts. Based on the calculations that have been done, PT XYZ experienced a shortage of supplies for the fast-moving category, with 981 units of spare parts experiencing emergency orders resulting in a resulting shortage of inventory of Rp 4,465,000. Meanwhile, the absence of a standard order under actual conditions resulted in a potential overstock of 40,478 units with a holding cost of Rp 266,366,097 so that the actual total inventory cost borne by the company is Rp 1,000,504,998.

2. Proposed inventory control using a probabilistic back ordering Q model inventory system. Inventory control using this system can produce parameters that can help companies procure spare parts. The inventory parameters are lot size, reorder point, and safety stock value. The reorder point value will provide a standard value for when an order can be made,

and the lot size value will provide a guideline for how many units an order can be made. This value will help the company in the problem of determining the ordering unit. Efforts to implement the proposed inventory control can be carried out by setting inventory parameters in PT XYZ's spare parts procurement information system and training inventory employees in implementing the proposed inventory system.

3. Evaluation of inventory control as a discussion system using the Q probabilistic back ordering model can help make savings and overcome inventory problems by PT XYZ. Based on the calculation of the difficulty of supplying supplies, the problem of shortage of supplies can be saved for emergency orders to 132 units of spare parts with the cost of proposed shortages to Rp 176,950 and savings of Rp 4,288,050. Then, on the problem of potential overstock, it is possible to hold stored spare parts to 623 units with a proposed holding cost of Rp 3,728,170. Thus, the total cost of inventory for the proposed was Rp. 682,103,799, with the difference in savings between the actual conditions and the proposed amounting to Rp. 318,401,199 or 31.82%.

6.2 Suggestion

The following suggestions are given so that further research can be done better; it can be made how to implement a spare parts inventory control system in the form of an SOP that will be known to warehouse employees as well as information system algorithms regarding the application of the model and consider the size of the warehouse area for the applied control system.