

## CHAPTER VI

### CONCLUSION

In this chapter, conclusions and suggestions for the future research are provided. The conclusion about this research is divided into two points.

#### 6.1 Conclusion

Build upon the results, the conclusions of this research are as follow:

1. Based on the current policy, the company sets the soybean inventory interval period to 90 days, equal to its expired limit in the warehouse. In another policy, the company determines the order quantity based on historical records and observations. So there are many various numbers of amounts ordered. However, there is an arising problem: the expired inventories at the end of periods, and the company sees it as a trivial matter. The projection inventory cost is determined by constructing a derivative form of the total inventory cost to determine the optimum interval period. Then, it is determined that the optimum interval is equal to 45 days, and the quantity is equal to 3,881 kg for the 2019 period and equal to 3,641 for the 2020 period. The most significant change is that the possibility of expired inventory presence becomes very little because the projection interval is much shorter than the inventory expired duration limit. In addition, a few order quantity reduces the unloading time at the factory.
2. Inventory total cost consists of purchasing, ordering, holding, expired, and shortage costs. Due to no inventory shortage condition, there is no shortage cost, but the expired inventory leads to the inability to earn a certain profit. The projection interval period is only 45 days, so it is believed there is no more expired inventory at the end of the period. Therefore there is no expired cost and missed profit on the projection policy. In 2019, the

company spent Rp437,776,000 for the total inventory cost, while in 2020, the company only spent Rp405,120,000 due to less supply in that year. However, the cost projection is equal to Rp421,976,530.00 for the 2019 period and equal to Rp395,945,330.00. Besides, the ordering cost projection is more expensive. The company saves Rp24,974,140.00 for those combined two-year periods.

3. After 45 days, if referring the observation data, the bunch of soybeans consists 4% defect rate in the end of the period which is below the national standard. Soybean inventory control projection not only create optimum time interval, but its period also become a company limit in monitoring the feasibility of soybean raw materials stored in warehouse based on the stipulation consisted in SNI 01-3922-1995.

## 6.2 Suggestion

Further research can be conducted by determining the arranged production planning as the based of inventory control. It positively will create a better overall production system in the company.

