

## **CHAPTER VI**

### **CLOSING**

This chapter contains conclusions from the processing and analysis that has been done. In addition, it contains suggestions for further research.

#### **6.1 Conclusion**

The conclusions of this final project research are as follows:

1. Based on the results of waste identification using the Waste Relationship Matrix (WRM) and Waste Assessment Questionnaire (WAQ) methods, it is obtained that the waste that has the highest percentage is motion waste at 36.50%, defect waste at 24.19%, process waste 17.60%. Followed by transportation waste 13.58% and waiting waste 8.13%.
2. The causes of motion waste are the absence of SOPs in the production process which causes unnecessary movements, no target work time, and many tool changes. The cause of defect waste is that it is difficult to carry out quality control at the baking workstation due to ineffective work procedures which cause inconsistent baking time, in addition to uneven oven heat. The causes of process wastage are the absence of operator safety equipment, errors in the batter recipe because they only rely on experience, and the mixer machine used cannot maximize batter aeration so manual stirring still needs to be done.
3. Some suggestions for improvements are given to reduce waste that occurs in the sponge cake production process at CV Putra Tanjung, as follows:
  1. Using a flour sifter equipped with measuring to add flour to minimize rework due to batter that is too thin.
  2. Changing the oven so that workers can monitor baking activities better so that burnt cakes can be minimized.
  3. Organize a cake cooling rack so that the baked bread can be cooled immediately without having to wait and accumulate in the basket. Replace the mixer with one that has a balloon-shaped whisk attachment

to maximize batter aeration. Also, provide oven mitts for the safety of baking workers.

4. The recommendation is expected to reduce lead time from 148.197 to 112.559 minutes. This results in a 31.20% increase in Process Cycle Efficiency (PCE) after the proposed improvements.

## 6.2 Suggestion

Suggestions for future research include a deeper exploration of line balancing, which involves optimizing task distribution across different workstations to improve overall production efficiency. This can help minimize bottlenecks, reduce idle time, and streamline the production process.

