

## CHAPTER V

### DISCUSSION

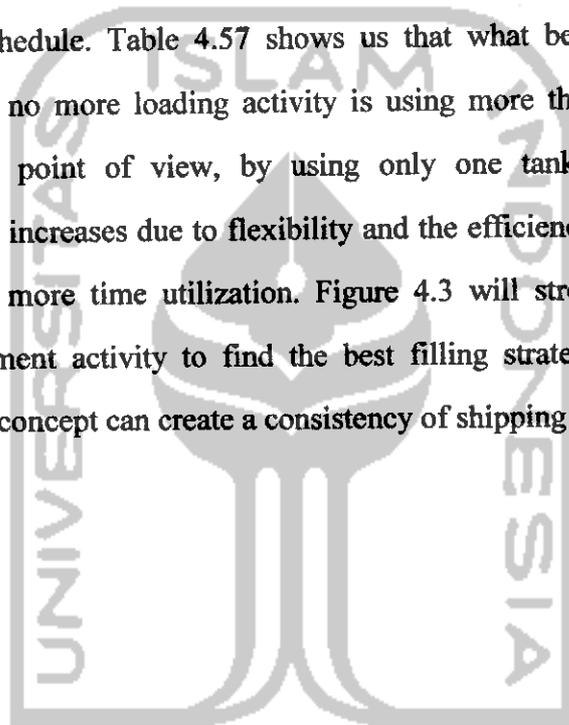
Based on the research objective which is to scope down the application of VMI concept in replenishment activities by developing an algorithm to find the filling strategy, the comparison result between actual and proposed system is being discussed to see the benefits of replenishment policy optimization.

#### 5.1 Actual System

In actual condition, there are a few loading problems because of several reasons. One of the reasons is because of the improper filling strategy. From the actual system analysis in previous chapter, it can be seen how the decision of amount filled and tank chosen will affect the loading activity. If it is just being chooses without any regulation, the employee will creates an assumptions and use their experiences in creating the filling strategy. Nothing wrong with this condition as long as it is not creates a problem. But, it did create problems. In actual system analysis, there are a few conditions where the company cannot provide the crude oil for shipping schedule unless the company use more than one tank to cumulative the amount. And if the current stocks are still insufficient to fulfill the shipping schedule, the company makes the costumer wait until the storage tank being filled and have enough crude oil to be loaded. This is where the inconsistency of shipping schedule accomplishment occurs, as we can see in Table 4.56.

## 5.2 Proposed System

The proposed system is build based on the problem which occurs in the actual system. In regard to find the filling strategy, the algorithm for replenishment activity based on VMI concept is being develops. The proposed system will integrate the information needed in creating a good Filling strategy where no more inconsistency in fulfilling shipping schedule. Table 4.57 shows us that what being planned is always fulfilled. In addition, no more loading activity is using more than one tank. From the company operational point of view, by using only one tank, the effectiveness in operational activity is increases due to flexibility and the efficiency of loading activity is also increase due to more time utilization. Figure 4.3 will stronger the idea of why optimizing replenishment activity to find the best filling strategy by using algorithm which based on VMI concept can create a consistency of shipping schedule.



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