CHAPTER 2

LITERATURE REVIEW

2.1. Previous Research

Maintenance system of production machinery is the main important factors in production system. Because of that reason maintenance system becomes complex problem. There are so many methods to solve maintenance problems. Generally preventive maintenance proposed to prevent the down machine. The older researches support the new research as literature or reference.

Research by Dwiyanti (2005) in PT Adi Satria Abadi, analyze interval preventive optimum changeover for needle based on changeover cost and defect cost. Researcher use Software Arena to decide distribution and QB 45 to decide interval preventive maintenance.

Another research is done by Purnomo (2005). This research decides preventive maintenance to minimize breakdown machine. The method use time to failure and calculation downtime expectation per cycle to get minimum result.

Budianto (2007) analyze Cartooning machine Rovema Fill and Pac Division in PT Sari Husada Klaten. The method is optimum interval between preventive replacement of equipment subject to breakdown. This model can be declared as cost expectation interval (0,tp) and Interval longitude.

2.2. Recent Research

This research is done in PT. Purinusa Ekapersada, this research identifies parts of corrugator machine and decide interval of preventive maintenance based on minimizing cost. Researcher use output distribution from Software Arena based on time to failure data. Maple software is used for decide the cost minimization. As the previous researches, this research also proposed preventive maintenance to reduce cost. However, the unique characteristic of corrugator machine created specific model that is different with the previous researches.

The other difference with the previous researches is the validation process performed to validate the model used related with time unit applied in the model.