

## **ABSTRACT**

*PT Konimex is one of the companies that produce food, such as candy. This candy production process is done by using machine, one of Eurosicma E75 DS (4) / A machine used for packaging process. Based on data in 2017, this machine is only able to achieve its target availability for one month and has the biggest downtime frequency compared to other machines, which is 37 times damage. This can be caused by several factors, including the age of the engine that has exceeded its optimal limit, causing the company to perform maintenance activities to restore maximum engine performance. In doing maintenance activities, it is necessary to know the number of maintenance crew. To determine the age of the machine and the number of optimal maintenance crew can be used Life Cycle Cost (LCC) method. This method is calculated from the sum of sustaining cost and acquisition cost. In addition, to know the magnitude of losses for the reliability of the machine is calculated by the method of Cost of Unreliability (COUR) which consists of the calculation of failure rate, time lost, and money lost. Based on the calculation of LCC, obtained the smallest LCC value of Rp1,451,140,737 with the optimal machine age is eight years and the number of optimal maintenance crew of seven people. Based on the calculation of COUR, obtained corrective money lost value of Rp57.097.869.694 and downtime money lost worth Rp60.671.980.382.*

*Keywords: Downtime, Maintenance Crew, Life Cycle Cost, Sustaining Cost, Acquisition Cost, Cost of Unreliability*