ABSTRACT

PT. XYZ is one of the companies that located in Bandung, West Java that engaged in printing newspapers. In the production process, it takes 13 engine units to be able to produce finished products in the form of newspapers. Tower machine is one of the machines that could be founded in the production line of PT. XYZ. Tower machines consist of 4 units with the names Tower 1, Tower 2, Tower 3, and the last is Tower 4. In 2016-2018, the demaged frequency of all tower machines is 1219. The amount of damage is the concern to analyze is it still same with the company estimation about the economic replacement time of the machine. To determine the ERT and the total cost, Life Cycle Cost (LCC) method is used. Then to look for the effect of changes in the increase in purchase price, decrease in operation cost, and decrease in maintenance costs against ERT, sensitivity analysis is used, followed by regression analysis to obtain a linear function of the variable change in purchase price increase, decrease operation cost, and decrease cost of ERT. Based on the results of the calculation of the life cycle cost (LCC) method, the smallest total LCC value is obtained at Rp. 95.990.741.336, with optimal engine life of 240 months. And based on the results of the regression analysis, the linear function obtained is ERT = 240

Keywords: Tower *Machine, Maintenance, Life Cycle Cost, Sensitivity Analysis, Regression Analysis*