

## **ABSTRACT**

UD Merdeka motor is one of the largest Honda AHASS workshop in Bandung, one problem that happens is a particular customer at a time when no one came, which caused the unemployed mechanic, mechanic utilization is very low percentage of about 60%. This can be detrimental to UD merdeka motor because of mechanic in a state salaries do not work, to overcome these permasalahan, necessitating a draft determination of the optimal number of mechanics that can serve all customers.

Designed proposal to improve the optimal number of mechanics by using queuing theory models of decision. The data needed is the arrival of data between customer and duration of service, which will then be tested form of distribution of the data. To test each scenario the number of mechanics, then it is simulated by using Promodel. Of each scenario will be demonstrated how the cost of operational expenses incurred, and how much revenue earned. So Many diagnostic scenarios were selected from a scenario of quantum mechanics that gives more advantage to the company.

This study shows that the optimal number of mechanics is 6 mechanic, a mechanic reduced from the existing situation.

Key word: Decision Model queuing theory, Distribution Test Data, Promodel, Cost Model.