

## ABSTRACT

Flega car rental is a business engaged in car rental, currently Flega car rental has three cars namely Avanza and 2 Gran max pick up. This business is located in the city of Samarinda, East Kalimantan. To run a car rental business, proper maintenance activities are needed so that the car does not suffer damage and optimize company profits. Therefore it is necessary to apply preventive maintenance activities to prevent damage to rental cars and optimize company profits by using Risk Based Maintenance (RBM) calculations. In this study the authors get some of the components that most often experience damage to the Gran Max pick-up and Avanza cars, there are three critical components on the Gran Max pick-up and Avanza cars that are the focus of this research. These components are Clutch Couplings, Brake Pads, and Accu. From the results of data processing that has been done using the Risk Based Maintenance method, the Gran Max pick up car has a risk of Rp. 1.788.419 (1.992%) and for Avanza cars there is a risk of Rp. 1.573.704 (1.656%), the risk possessed by the Gran Max pick-up and Avanza cars has passed the risk acceptance criteria set by the company in the amount of Rp. 673.200 for the Gran max pick up and Rp. 712.800 for Avanza. Therefore it is necessary to formulate the time interval of treatment. Maintenance time intervals that have been obtained from the calculation results on the Gran max pick-up car for Clutch Couplings 10.000 Kilometers, Brake Pads 13.000 Kilometers, and Accu 13.000 Kilometers, and Avanza car time intervals for Clutch Couplings 13.000 Kilometers, Brake Pads 15.000 Kilometers, and Accu 20.000 Kilometers.

Keywords : *Business, Maintenance, Risk Based Maintenance, Maintenance Interval*