ABSTRAK

Technological advances are currently developing very rapidly, especially in the field of transportation. Motorbikes are currently one of the main means of transportation that are in demand in Indonesia. Most motorbike users don't know how the motorbikes work in detail and technical matters, they only know how to operate them, so most riders tend to give up the problem of motorbike damage. to the mechanic without knowing that it was actually damaged. This research aims to build a web- based expert system that is able to diagnose damage to 150cc sport motorbikes using the forward chaining method. This system is designed to help users, especially mechanics and motorbike owners, identify problems that occur in their vehicles based on the symptoms that appear. The research results show that the system developed has a 100% accuracy rate in identifying the cases tested, in accordance with expert diagnoses. Apart from that, evaluation through the User Acceptance Test (UAT) shows that this system is very well received by users, with an average satisfaction score of 96.66%. This system has shown satisfactory results, further development is recommended to expand the knowledge base to make the expert system better in order to improve the user interface to make it more attractive and intuitive. Thus, this system can cover more damage cases and improve the overall user experience in providing damage information on motorbikes so that users can carry out early diagnosis.

Keywords: Expert System, Knowledge Engineer, Forward Chaining