Abstract

Nearly all manufacturers offer a free replacement warranty for all components or spare parts. This should be studied further, because each component / spare part has different characteristics, especially at the failure rate. The research which conducted by Bai and Pham is developing a warranty for repairable multi-component in the FSW (Full Service Warranty) warranty policy. In this policy, any defective component or subsystem will be replaced, after that it will get more additional treatments aimed at reducing the probability that the system will break down the days to come. Both the replacement of components or these treatments will not be charged to the consumer.

In this research will implement Bai and Pham model into the washing machine product in order to determine how much the right time and cost of warranty for the product. From the results obtained, will do some development of scenarios to determine the characteristics of the model. The scenario was developed by changing the parameters beta and Etha of components in the washing machine.

From this research, noted that not all components of the washing machine noticed by the consumer in making a claim to
the service center, change the parameter Weibull distribution of damage is very influential on the characteristics of each component, the more limited data then the reliability characteristics of components will also be lower, and the last model of computation highly sensitive to changes in parameter weibull distribution.

**Keywords : multi-component warranty, warranty cost analysis, washing machine**