

## **ABSTRACT**

*PT United Tractors is one of the company in Indonesia, which is engaged in distribution of heavy equipment. Heavy equipment for sale very diverse, such as excavators, backhoe loaders, wheel loaders, bulldozers, motor graders and dump trucks. One of the products sold by PT United Tractors is PC-200 Excavator. The most sales is the excavator, which is fifty percents of whole sales of heavy equipment during 2010 to 2011. During 2010 to 2011 there were 136 claims that go against units of PC-200 Excavator product. Pattern of failure or pattern of claim that incurred from the product purchased by consumers will affect the warranty cost. The more the products are having the claim, the greater the cost that must be paid by the manufacturer. Giving warranty on a product means adding cost, that is cost warranty for the manufacturer. When compared with bulldozer and dump truck, the excavator warranty costs have a considerable amount of warranty costs, which is about 12% of production cost. In addition, the cost of warranty for excavators has increased from 2010 and 2011. Seeing a large sales opportunities of excavator in the market and the warranty cost, an analysis and a calculation proposal of the optimal cost of warranty on excavator product is required by using Free Replacement Warranty and Pro Rata Warranty approach.*

*Approach free replacement and pro-rata warranty cost differences can show a product's components. PC-200 Excavator product has many components with characteristic damage is different. The difference in the characteristics of each component and parts warranty costs can diitung using FRW and PRW approach were evident in the company. The longer the duration of the warranty of a product, the greater the costs to repair the defective product during the warranty period. Thus, the determination of the cost of the warranty is not only manufacturers but also the attention of the consumer. Consumers will be more interested and feel disadvantaged if the product purchased has a warranty duration and reliability of the product term. By, because it is the approach used in this study free replacement warranty and prorated warranty.*

*The results of calculations using this approach is the minumum warranty cost of Rp 97,977,025.58 by using Pro average warranty policy. After that the selling price is calculated most appropriate based on the calculation of the cost of warranty, cost of production and the expected benefits of the warranty cost and Cost of Production. So the selling price obtained PC-200 Excavator Rp. 1,165,977,026.*

**Keywords: Warranty, Warranty Cost, Free Replacement Warranty dan Pro Rata Warranty**