ABSTRACT

Phenomenon of employee resignation is a significant challenge for companies because it affect the productivity and stability of the company's operations. Every companies supposed to analyze the potential of employee resignation. This research aims to classify the potential of employee resignation based on working comfort and applies the classification modeling method from Decision Tree: Classification And Regression Trees (CART) and the ensemble Bootstrap Aggregating (Bagging) method. CART is a non-parametric method that is effective in building classification and prediction models based on decision trees, while Bagging is an ensemble method that combines several CART models to improve the accuracy and stability of predictions. The CART model provides an accuracy of 73% and f1-score of 62%, while the Bagging CART model provides an accuracy of 87% and f1-score of 88%. This research shows an increase in accuracy when using Bagging CART model of 14%. The most important variable to build the model and make predictions is the age. Age is also used as the root node in building CART model.

Keywords: Employee, Resignation, Working Comfort, CART, Bagging