ABSTRACT

PT Telekomunikasi Seluler, operating under the trademark Telkomsel, is one of the leading cellular telecommunications operators in Indonesia. Currently, Telkomsel is the largest cellular telecommunications operator in Indonesia, operating 236 thousand BTS (Base Transceiver Station) and serving more than 170 million subscribers. As one of the largest telecommunications companies in Indonesia, Telkomsel has always adhered to customer satisfaction. In assessing customer satisfaction, the right method is needed to view and analyze customer satisfaction. As technology develops, the level of customer satisfaction can be measured using machine learning, for predicting customer satisfaction level data, one of the machine learning models is supervised learning, which is a method for classifying each object in the data into several classes, C4.5 and K. -NN is the method that is considered the most appropriate in conducting analysis related to customer satisfaction for Telkomsel users, the use of C4.5 is considered to provide an ideal level of accuracy and K-NN is considered to have advantages in classifying data. So that the results of the two methods will be used as a comparison and determination of the appropriate method in assessing customer satisfaction at Telkomsel. The results obtained in the simulation were carried out to predict the level of satisfaction of Telkomsel prepaid customers using the C4.5 and K-NN algorithms, getting an accuracy value of 98.00% when tested using the C4.5 algorithm, and getting an accuracy value of 96.00% when using the algorithm. K-NN. Both results were obtained when the simulation used 90% training data and 10% testing data.

Keywords: Telkomsel, Customer satisfaction, Machine Learning, Supervised Learning, Classification, C4.5, K-NN, Accuracy Value.