

Abstract

Service success can be measured by customer satisfaction with the service. Twitter is one of the social media that Indonesian people often use to provide opinions on a topic, including opinions about internet services. Opinions of telecommunication service users, one of which is Telkomsel, can analyze evaluation materials for companies so that the satisfaction of Telkomsel product users increases and the company can compete with other companies. This study aims to determine the sentiment value of the signal and service aspects of the Telkomsel company. Results Based on the analysis and testing carried out on data taken from Twitter related to signal and service aspects with a total data of 16692 tweets. This study implements Gradient Boosting Decision Tree (GBDT) classification with the technique for imbalanced data handling, SMOTE, and Random Undersampling and compares it with the baseline model. The result is that SMOTE with GBDT consistently produces the best value compared to the Random Undersampling technique and without using an imbalanced data handling technique. SMOTE performs well in increasing both in the signal aspect and in the service aspect. F1-Score value in signal aspect gained 96,035%, an increase of 25,260% and for F1-Score in service aspect gained 90,256%, an increase of 27,918%.

Keywords: sentiment analysis; aspect based sentiment analysis; gradient boosting decision tree; smote;