

Abstract

Social media has recently been widely used by users, especially Indonesians, as a place to express themselves in sentences, pictures, sounds, or videos. Twitter is one of the social media favored by people of diverse ages. Twitter is a social media that provides features like social media in general. However, Twitter has a unique feature where users can send or read text messages limited to only a few characters. Therefore, user tweets with topics related to a particular product can be utilized by companies to become input in the development of these products. This research was conducted using tweet data on the topic of Telkomsel, which is divided into two aspects, namely signal and service. Aspect-based sentiment analysis of Telkomsel was carried out using Logistic Regression with FastText feature expansion to reduce vocabulary mismatch in tweets so that the classification stage can be performed optimally. In addition, the Synthetic Minority Oversampling Technique (SMOTE) sampling method was applied to overcome data imbalance. The test results prove that feature expansion can improve F1-Score values for signal and service aspects. For the signal aspect, F1-Score increased by 3.33% from the baseline with a value of 96.48%. While for the service aspect, F1-Score increased by 12.91% from the baseline with a value of 95.57%.

Keywords: aspect-based sentiment analysis, logistic regression, fasttext, feature expansion, twitter
