Abstract

Customer opinion is an important aspect of a company's or service provider's success. By judging the sentiment of existing opinions, companies can use it as an evaluation tool to improve the quality of the services or products they offer. Sentiment analysis can be used as a measure of opinion sentiment by classifying the text into negative or positive polarity to obtain customer gratification with a product or service. Aspect-based sentiment analysis allows companies to analyze more specifically and find aspects that need improvement. The study conducted a aspect-based sentiment analysis on Telkomsel users on Twitter. The data used was 16,992 tweets from users discussing various aspects such as Telkomsel's services and signals on Twitter. In this study, Word2Vec was used for enhancements to minimize lexical discrepancies caused by delimited words in tweets. The results show that the Word2Vec, Synthetic Minority Oversampling Technique (SMOTE), and boosting algorithms in combination with the logistic regression classifier achieved the highest accuracy of 95.10% on the signal aspect, while the use of hyperparameters resulted the highest accuracy for service aspect with 93.34%.

Keywords: sentiment analysis, logistic regression, word2vec, SMOTE, boosting algorithm, twitter, telkomsel

---