Accuracy Comparison of SVM and KNN Algorithm in Analysis Sentiment of SATUSEHAT Mobile Application

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ABSTRACT

The SATUSEHAT application is a health application developed by the Indonesian government to help handle the COVID-19 pandemic or coronavirus disease. This application has been downloaded 50 million times and received 1.1 million reviews as of 1 June 2025. Users who have used and provided reviews about the application certainly expect the application to have good reviews. However, understanding the large number of reviews from the public opinion is not easy, therefore sentiment analysis and lexicon labeling of the SATUSEHAT Mobile application is required. This research aims to determine the performance of the Support Vector Machine and K Nearest Neighbor algorithms as well as the results of using the lexicon dictionary in classifying application user reviews into positive and negative sentiment. The accuracy results from SVM accuracy are performed better at 84.08% compared to KNN accuracy at 78.52%, and the results from classification using the Lexicon dictionary, user review visualization was found to be 843 positive reviews and 3408 negative reviews from a total of 4251 data review sample from SATUSEHAT application user, most of the user gave negative reviews. This study results showed that the accuracy of the SVM method was superior to the KNN method in the sentiment analysis classification.

Keywords: *Sentiment Analysis*, SATUSEHAT, Lexicon, *Support Vector Machine*, *K Nearest Neighbor*