ABSTRACT

SENTIMENT ANALYSIS OF YOUTUBE USERS TOWARDS THE FREE NUTRITIOUS MEAL PROGRAM USING THE SUPPORT VECTOR MACHINE ALGORITHM

The Free Nutritious Meal Program is an initiative by the Indonesian government under the Merah Putih Cabinet, launched in January 2025 to improve public welfare by providing nutritious meals, especially for vulnerable groups. The program sparked various opinions on social media, particularly YouTube, due to its involvement of multiple stakeholders and a large state budget. Therefore, sentiment analysis is important to assess public acceptance of the program. This study used 2,760 comments from five national news YouTube videos collected through crawling and processed through preprocessing. The comments were labeled as positive or negative using the SenticNet dictionary and weighted using TF-IDF. The data was divided into two training and testing ratios: 80:20 and 90:10. SMOTE was used to balance class distribution, and classification was conducted using the Support Vector Machine algorithm with four kernels: linear, sigmoid, RBF, and polynomial. Model performance was evaluated using a confusion matrix to obtain accuracy, precision, recall, and F1-score. In the 80:20 scenario with SMOTE, the linear kernel achieved 86% accuracy, while the sigmoid kernel reached 86% without SMOTE. In the 90:10 scenario, the linear kernel achieved 89% with SMOTE, while the highest accuracy of 91% was obtained by the sigmoid kernel without SMOTE.

Keywords**:** *Sentiment Analysis, YouTube, Free Nutritious Meals, Support Vector Machine*