

ABSTRACT

Online transportation services are increasingly capturing the attention and interest of the public as a convenient solution for daily activities. Maxim is one of the online transportation services that ranks third in terms of frequency of usage. Based on the ranking of these online transportation services, Maxim can enhance its services based on user reviews through sentiment analysis methods. This approach aims to process a substantial amount of data selectively and efficiently by categorizing reviews into two sentiments: positive and negative, using the Naïve Bayes algorithm. The sentiment analysis process is divided into four stages: data collection, preprocessing, modeling, and evaluation. In this study, three training-testing ratio scenarios were employed: 60:40, 70:30, and 80:20. The modeling results using the Multinomial Naïve Bayes model indicate that all three ratios achieved accuracy values above 85%, with the best-performing model at the 70:30 ratio. The evaluation results based on the best model were assessed using a confusion matrix, yielding an accuracy of 87.22%, recall of 98.49%, precision of 86.62%, and an f1 score of 92.17%. Based on sentiment visualization results, it was found that user reviews of the Maxim application tend to lean towards positive sentiment, with 76% of reviews being positive and 24% being negative. Consequently, these positive and negative sentiment categories can serve as evaluative feedback for developers, facilitating improvements to the Maxim application. For example, improvements could be made in terms of location tracking, which might not be entirely accurate in the current system.

Keywords—Sentiment Analysis, Online Transportation, Naïve Bayes.