Abstract

The use of mobile applications is increasingly in demand by the public because it can facilitate users in their daily activities. Gojek application is one of the applications used as online transportation which ranks first with the highest download rate in Indonesia. Despite getting to the top level, gojek experienced a significant decline in downloads compared to the previous download average. This is an opportunity for researchers to use sentiment analysis material to find user reviews of gojek applications in several aspects. This research compares machine learning and deep learning methods. Maximum Entropy and Recurrent Neural Network (RNN) methods are used by combining the two methods with Chi-Square as feature selection and TF-IDF as feature extraction. The comparison was carried out on 4052 data and gave positive or negative sentiments on the aspects of availability, system, comfort, and transactions. The results show that the value contained in the RNN method gets better results than using the Maximum Entropy method with an accuracy value on the availability aspect of 90.47% and an F1-Score value of 83.85%, an accuracy value on the system aspect of 88.97% and an F1-Score value of 85.36%, an accuracy value for the comfort aspect of 81.79% and an F1-Score of 69.275% and an accuracy value on the transaction aspect of 94.05% and an F1-Score of 90.45%. Based on these results, this study can prove an increase in accuracy of more than 5% in each aspect used.

Keywords: Gojek, Sentiment Analysis, *Maximum Entropy, Recurrent Neural Network, Chi-Square.*