ABSTRAK

Mobil listrik sebagai solusi ramah lingkungan menawarkan efisiensi energi serta berkontribusi dalam upaya pengurangan emisi gas buang. Meskipun memiliki potensi yang besar, tingkat adopsi kendaraan ini di Indonesia masih tergolong rendah akibat kendala infrastruktur pengisian daya yang belum merata serta harga yang relatif tinggi. Situasi tersebut memunculkan beragam opini publik yang banyak disampaikan melalui media sosial, salah satunya TikTok. Penelitian ini bertujuan untuk menganalisis sentimen publik terhadap mobil listrik melalui komentar pengguna TikTok serta membandingkan kinerja algoritma Support Vector Machine dan Decision Tree dalam melakukan klasifikasi sentimen. Data diperoleh melalui metode *crawling* sebanyak 2.147 komentar, kemudian dilakukan tahap *pre-processing* dan *processing data*, meliputi pembersihan data, *tokenization*, *stemming*, serta *stopword removal*. Pelabelan dilakukan menggunakan metode *Term Frequency-Inverse Document Frequency* TF-IDF dan divalidasi oleh guru Bahasa Indonesia. Model klasifikasi dibangun dengan algoritma SVM dan Decision Tree, kemudian dievaluasi menggunakan *confusion matrix*. Hasil evaluasi menunjukkan bahwa algoritma SVM memperoleh akurasi sebesar 88,16%, sedangkan Decision Tree sebesar 86,15%. Berdasarkan hasil tersebut, algoritma SVM menunjukkan performa lebih baik dalam mengklasifikasikan sentimen publik terhadap mobil listrik pada platform TikTok.

Kata kunci: Analisis Sentimen, Mobil Listrik, TikTok, Support Vector Machine, Decision Tree

ABSTRACT

Electric vehicles, as an environmentally friendly solution, offer energy efficiency and contribute to reducing exhaust emissions. Despite their great potential, the adoption rate of these vehicles in Indonesia remains relatively low due to the uneven distribution of charging infrastructure and relatively high prices. This situation has sparked various public opinions, many of which are expressed through social media platforms, particularly TikTok. This study aims to analyze public sentiment towards electric vehicles based on user comments on TikTok and to compare the performance of Support Vector Machine (SVM) and Decision Tree algorithms in sentiment classification. A total of 2,147 comments were collected through a crawling method, followed by data pre-processing and processing stages, including data cleaning, tokenization, stemming, and stopword removal. Labeling was conducted using the Term Frequency-Inverse Document Frequency (TF-IDF) method and validated by an Indonesian language expert. The classification models were built using the SVM and Decision Tree algorithms and evaluated using a confusion matrix. The evaluation results showed that the SVM algorithm achieved an accuracy of 88.16%, while the Decision Tree reached 86.15%. Based on these results, the SVM algorithm demonstrated better performance in classifying public sentiment towards electric vehicles on the TikTok platform.

Keywords*: Sentiment Analysis, Electric Vehicles, TikTok, Support Vector Machine, Decision Tree*