

ABSTRAK

Perkembangan transportasi *online* mendorong pengguna menyampaikan opini mengenai kualitas layanan melalui *Platform X (Twitter)*, sehingga analisis sentimen dapat dimanfaatkan untuk mengetahui persepsi masyarakat terhadap layanan Grab. Penelitian ini bertujuan menganalisis sentimen pengguna terhadap layanan Grab serta mengimplementasikan model IndoBERT untuk mengklasifikasikan sentimen ke dalam kategori positif, negatif, dan netral. Data penelitian diperoleh melalui proses crawling menggunakan *Application Programming Interface (API)* sebanyak 5.357 cuitan. Setelah dilakukan tahapan preprocessing, diperoleh 4.403 data yang digunakan sebagai dataset penelitian. Pelabelan sentimen dilakukan menggunakan metode *Lexicon-Based* dengan *InSet Lexicon*, kemudian data dibagi menggunakan rasio 80:20, diseimbangkan dengan *Random Oversampling*, dan dilakukan proses *fine-tuning* pada model IndoBERT. Hasil penelitian menunjukkan distribusi sentimen sebanyak 2.117 sentimen negatif, 1.988 sentimen positif, dan 298 sentimen netral. Model IndoBERT memperoleh akurasi sebesar 78% pada tahap pengujian. Selain itu, berdasarkan hasil *classification report*, model mencapai akurasi sebesar 79%, yang menunjukkan kemampuan yang baik dalam mengklasifikasikan sentimen pengguna layanan Grab. Hasil penelitian ini menunjukkan bahwa model IndoBERT efektif diterapkan pada analisis sentimen berbahasa Indonesia dan dapat menjadi bahan evaluasi dalam meningkatkan kualitas layanan Grab.

Kata Kunci: Analisis Sentimen, IndoBERT, Grab, X (*Twitter*), *Fine-Tuning*.

ABSTRACT

The growth of online transportation services has encouraged users to share their opinions on service quality via Platform X (Twitter), making sentiment analysis a useful tool for understanding public perceptions of Grab's services. This study aims to analyze user sentiment toward Grab's services and to implement the IndoBERT model to classify sentiment into positive, negative, and neutral categories. Research data was obtained through a crawling process using an Application Programming Interface (API), yielding a total of 5,357 tweets. After preprocessing, 4,403 data points were obtained and used as the research dataset. Sentiment labeling was performed using the Lexicon-Based method with the InSet Lexicon; the data was then split in an 80:20 ratio, balanced using Random Oversampling, and the IndoBERT model was fine-tuned. The results showed a sentiment distribution of 2,117 negative sentiments, 1,988 positive sentiments, and 298 neutral sentiments. The IndoBERT model achieved an accuracy of 78% during the testing phase. Additionally, based on the classification report, the model achieved an accuracy of 79%, demonstrating strong capability in classifying the sentiments of Grab service users. These results indicate that the IndoBERT model is effective for Indonesian-language sentiment analysis and can serve as a basis for evaluating ways to improve the quality of Grab's services.

Keywords: Sentiment Analysis, IndoBERT, Grab, X (Twitter), Fine-Tuning.