

INTISARI

Kualitas layanan aplikasi KAI Access masih menghadapi tantangan besar dalam hal kestabilan teknis dan keandalan sistem, yang berdampak langsung pada kepuasan pengguna. Penelitian ini bertujuan untuk melakukan analisis sentimen ulasan pengguna aplikasi KAI Access di Google Play Store menggunakan algoritma Support Vector Machine (SVM) dengan empat kernel (Linear, RBF, Sigmoid, dan Polynomial). Data diambil melalui web scraping dari 23 Agustus 2023 hingga 30 Juni 2025, kemudian melalui tahap pra-pemrosesan (cleaning, tokenisasi, normalisasi, stopword removal, dan stemming) serta pembobotan TF-IDF. Hasil pengujian menunjukkan bahwa kernel Linear memberikan akurasi tertinggi (97%), diikuti Sigmoid (96%), RBF (94%), dan Polynomial (76%). Visualisasi WordCloud mengungkap bahwa ulasan negatif didominasi keluhan tentang error, login, dan transaksi; sedangkan ulasan positif menyoroti kemudahan dan kecepatan aplikasi. Penelitian ini membuktikan bahwa SVM efektif untuk klasifikasi sentimen dan dapat menjadi dasar bagi pengembang dalam meningkatkan kualitas aplikasi.

Kata kunci: analisis, sentimen, KAI Access, Support Vector Machine.

ABSTRACT

The service quality of the KAI Access application still faces major challenges in terms of technical stability and system reliability, which directly affect user satisfaction. This study aims to conduct sentiment analysis of user reviews of the KAI Access application on the Google Play Store using the Support Vector Machine (SVM) algorithm with four kernels (Linear, RBF, Sigmoid, and Polynomial). Data were collected through web scraping from August 23, 2023, to June 30, 2025, and then processed through several stages: preprocessing (cleaning, tokenization, normalization, stopword removal, and stemming) and TF-IDF weighting. The experimental results show that the Linear kernel achieved the highest accuracy (97%), followed by Sigmoid (96%), RBF (94%), and Polynomial (76%). WordCloud visualization revealed that negative reviews were dominated by complaints about errors, login issues, and transactions, while positive reviews highlighted the ease of use and speed of the application. This study demonstrates that SVM is effective for sentiment classification and can serve as a foundation for developers to improve application quality.

Keywords: analysis, sentiment, KAI Access, Support Vector Machine.

