

ANALISIS SENTIMEN APLIKASI KAI ACCESS BERDASARKAN ULASAN PELANGGAN DI GOOGLE PLAY STORE BERBASIS *NATURAL LANGUAGE PROCESSING*

Taufik Hidayat, Dayat Subekti

INTISARI

Latar Belakang: PT Kereta Api Indonesia (Persero) mengembangkan aplikasi KAI Access sebagai sarana pemesanan tiket, pengecekan jadwal, dan layanan terkait transportasi kereta api secara digital. Ulasan pelanggan di Google Play Store menjadi sumber data penting untuk mengetahui persepsi pengguna terhadap kualitas layanan aplikasi ini.

Tujuan: Penelitian ini bertujuan untuk melakukan analisis sentimen terhadap ulasan pengguna KAI Access, dengan mengklasifikasikan ulasan ke dalam kategori positif, negatif, dan netral menggunakan metode *Naïve Bayes Classifier* berbasis *Natural Language Processing* (NLP).

Metode Penelitian: Data ulasan dikumpulkan melalui teknik *web scraping* dari Google Play Store, kemudian diproses melalui tahap *preprocessing* (cleaning, case folding, tokenizing, stopword removal, stemming) dan pembobotan menggunakan metode TF-IDF sebelum dilakukan klasifikasi sentimen. Pengujian dilakukan dengan perbandingan pembagian data latih dan data uji menggunakan skema 80:20.

Hasil: Model menghasilkan tingkat akurasi 96,89%, presisi 97,26%, *recall* 95,65%, dan *F1-score* 96,27%, yang menunjukkan efektivitas metode *Naïve Bayes* dalam mengklasifikasikan sentimen pengguna.

Kesimpulan: Analisis sentimen berbasis NLP dengan metode *Naïve Bayes* efektif untuk mengidentifikasi persepsi pengguna terhadap KAI Access, dan hasilnya dapat dimanfaatkan sebagai bahan evaluasi peningkatan kualitas layanan aplikasi.

Kata-kunci: Analisis Sentimen, KAI Access, Naïve Bayes, NLP

¹ Mahasiswa Informatika (S-1) Universitas Jenderal Achmad Yani Yogyakarta

² Dosen Informatika (S-1) Universitas Jenderal Achmad Yani Yogyakarta

SENTIMENT ANALYSIS OF THE KAI ACCESS APPLICATION BASED ON CUSTOMER REVIEWS ON GOOGLE PLAY STORE USING NATURAL LANGUAGE PROCESSING

Taufik Hidayat, Dayat Subekti

ABSTRACT

Background: *PT Kereta Api Indonesia (Persero) has developed the KAI Access application as a digital platform for train ticket booking, schedule checking, and related services. Customer reviews on the Google Play Store serve as a crucial data source to understand user perceptions of the application's service quality.*

Objective: *This research aims to perform sentiment analysis on KAI Access user reviews, classifying them into positive, negative, and neutral categories using the Naïve Bayes Classifier method based on Natural Language Processing (NLP).*

Method: *User reviews were collected through web scraping from the Google Play Store, then processed through preprocessing stages (cleaning, case folding, tokenizing, stopword removal, stemming) and feature weighting using the TF-IDF method before sentiment classification. Testing was conducted using an 80:20 training-to-testing data split scheme.*

Result: *The model achieved an accuracy rate of 96.89%, precision of 97.26%, recall of 95.65%, and an F1-score of 96.27%, indicating the effectiveness of the Naïve Bayes method in classifying user sentiments.*

Conclusion: *NLP-based sentiment analysis using the Naïve Bayes method is effective in identifying user perceptions of KAI Access, and the results can be utilized as evaluation material for improving the application's service quality.*

Keywords: *Sentiment Analysis, KAI Access, Naïve Bayes, NLP*

¹ Student of Informatics (S-1) Universitas Jenderal Achmad Yani Yogyakarta

² Lecturer of Informatics (S-1) Universitas Jenderal Achmad Yani Yogyakarta