

ANALISIS SENTIMEN TERHADAP ULASAN PENGGUNA APLIKASI BRILINK MENGGUNAKAN ALGORITMA RANDOM FOREST

ABSTRAK

Analisis sentimen merupakan metode untuk memahami opini dan respon pengguna terhadap produk atau layanan. Penelitian ini menerapkan analisis sentimen pada ulasan pengguna aplikasi BRILink, layanan perbankan berbasis agen milik BRI yang telah diunduh lebih dari satu juta kali di Google Play Store. Karena banyaknya ulasan yang mencakup berbagai isu, seperti gangguan transaksi dan kesulitan penggunaan, pendekatan otomatis diperlukan untuk mengekstraksi informasi secara efisien. Algoritma Random Forest digunakan sebagai model klasifikasi sentimen, dengan evaluasi performa menggunakan confusion matrix melalui skema 5-fold cross-validation. Sebanyak 804 ulasan pengguna pada periode Januari–Mei 2025 diklasifikasi dengan model Random Forest yang telah dibangun, dengan hasil klasifikasi menunjukkan 681 ulasan (84,6%) bersentimen positif dan 124 ulasan (15,4%) bersentimen negatif. Hasil evaluasi menunjukkan akurasi tertinggi sebesar 90,29% pada fold ke-4. Interpretasi kata dilakukan dengan menggunakan metode feature importance untuk mengidentifikasi kata-kata yang paling berpengaruh dalam klasifikasi sentimen. Hasil interpretasi menunjukkan bahwa kata “*daftar*” memiliki kontribusi terbesar (8,32%), diikuti oleh “*masuk*”, “*ribet*”, dan kata-kata lainnya. Distribusi kata berdasarkan sentimen menunjukkan bahwa kata “*bantu*”, “*mantap*”, dan “*bagus*” dominan pada sentimen positif, sedangkan “*daftar*”, “*masuk*”, “*susah*”, “*ribet*”, “*ganggu*”, dan “*jelek*” banyak muncul pada sentimen negatif. Kata “*tolong*” cenderung muncul dalam konteks keluhan.

KataKunci: BRILink, Feature Importance, Random Forest, Sentiment Analysis, User Reviews.

SENTIMENT ANALYSIS OF BRILINK APP USER REVIEWS USING RANDOM FOREST ALGORITHM

ABSTRACT

Sentiment analysis is a method used to understand user opinions and responses toward a product or service. This study applies sentiment analysis to user reviews of the BRILink application, an agent-based banking service owned by Bank Rakyat Indonesia (BRI), which has been downloaded over one million times on the Google Play Store. Given the large volume of reviews covering various issues, such as transaction disruptions and usability difficulties, an automated approach is needed to efficiently extract meaningful information. The Random Forest algorithm was employed as the sentiment classification model, with performance evaluated using a confusion matrix under a 5-fold cross-validation scheme. A total of 804 user reviews from the period January to May 2025 were classified using the developed Random Forest model. The classification results indicated that 681 reviews (84.6%) were positive and 124 reviews (15.4%) were negative. The highest classification accuracy, reaching 90.29%, was achieved in the fourth fold. For feature interpretation, the feature importance method was used to identify the most influential words in sentiment classification. The results showed that the word “daftar” (meaning “register”) had the highest contribution (8.32%), followed by “masuk” (login), “ribet” (complicated), and others. The distribution of words based on sentiment shows that “bantu”, “mantap”, and “bagus” are dominant in positive sentiment, while “daftar”, “masuk”, “susah”, “ribet”, “ganggu”, and “jelek” frequently appear in negative sentiment. The word “tolong” tends to appear in the context of complaints.

Keywords: BRILink, Feature Importance, Model Evaluation, Random Forest, Sentiment Analysis.