ABSTRAK

Layanan perbankan digital melalui aplikasi *mobile banking* dituntut untuk menyediakan performa optimal serta pengalaman pengguna yang memuaskan. Namun, masih ditemukan berbagai keluhan dari pengguna terkait stabilitas aplikasi, gangguan teknis, dan keterlambatan transaksi. Penelitian ini bertujuan untuk menganalisis sentimen pengguna terhadap aplikasi *mobile banking* menggunakan algoritma Naive Bayes, dengan harapan dapat memberikan gambaran persepsi pengguna dan rekomendasi peningkatan layanan. Data penelitian diperoleh melalui kuesioner yang disebarkan kepada pengguna aktif, menghasilkan 443 data ulasan yang mencakup berbagai aspek fitur utama seperti transfer, pembayaran, QRIS, top-up, hingga performa keseluruhan. Data kemudian diproses melalui tahapan *preprocessing*, pelabelan sentimen, dan pembobotan kata menggunakan metode TF-IDF. Pemodelan klasifikasi sentimen dilakukan dengan algoritma Naive Bayes, serta dibandingkan dengan Support Vector Machine (SVM) dan K-Nearest Neighbor (KNN) sebagai algoritma pembanding. Pengujian dilakukan menggunakan metode K-Fold Cross Validation dengan proporsi 80% data latih dan 20% data uji di setiap fold. Berdasarkan hasil evaluasi, algoritma Naive Bayes menunjukkan nilai rata-rata precision sebesar 82%, recall 81%, dan F1-score 81%, yang mencerminkan bahwa algoritma ini layak dan cukup efektif untuk digunakan dalam klasifikasi sentimen ulasan pengguna aplikasi. Hasil penelitian diimplementasikan ke dalam dashboard berbasis website sebagai sarana visualisasi data.

Kata Kunci: Algoritma Naive Bayes, Analisis Sentimen, Klasifikasi Teks, *Mobile banking*, Ulasan Pengguna

ABSTRACT

Digital banking services through mobile banking applications are expected to provide optimal performance and a satisfying user experience. However, various user complaints are still found, particularly related to application stability, technical issues, and transaction delays. This study aims to analyze user sentiment toward a mobile banking application using the Naive Bayes algorithm, with the goal of providing an overview of user perceptions and recommendations for service improvement. The research data were collected through questionnaires distributed to active users, resulting in 443 user reviews covering key features such as transfers, payments, QRIS, top-up, and overall performance. The data were processed through several stages, including preprocessing, sentiment labeling, and word weighting using the TF-IDF method. Sentiment classification modeling was performed using the Naive Bayes algorithm and compared with Support Vector Machine (SVM) and K-Nearest Neighbor (KNN) as benchmarking algorithms. Testing was conducted using the 5-Fold Cross Validation method with an 80% training and 20% testing data split in each fold. The evaluation results show that the Naive Bayes algorithm achieved an average precision of 82%, recall of 81%, and F1-score of 81%, indicating that the algorithm is feasible and fairly effective for classifying user sentiment reviews. The research results were implemented into a web-based dashboard as a means of data visualization.

Keywords: Naive Bayes Algorithm, Sentiment Analysis, Text Classification, User Reviews, Mobile banking