Evaluasi Kualitas Layanan Aplikasi melalui Text Mining Ulasan Pengguna: Studi Kasus Aplikasi Dompet Digital LinkAja = Evaluation of Application Service Quality using Text Mining from User Reviews: A Case Study of the LinkAja Digital Wallet Application

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Abstrak

Penelitian ini mengevaluasi kualitas layanan aplikasi dompet digital LinkAja melalui analisis ulasan online pengguna menggunakan pendekatan text mining. Proses penelitian meliputi ekstraksi ulasan, pra-pemrosesan data, analisis sentimen, deteksi keluhan dengan topic modelling, pengukuran skor kualitas layanan, dan evaluasi total skor. Sebanyak 50.626 data ulasan diekstraksi dari Google Play Store dan Apple App Store. Pengukuran skor kualitas layanan dilakukan dengan mengidentifikasi dimensi kualitas layanan berdasarkan literatur terkait, serta mendefinisikan kata kunci representatif yang divalidasi melalui metode Delphi. Hasil penelitian menunjukkan bahwa model Support Vector Machine (SVM) menunjukkan performa terbaik dengan akurasi 89,30%, diikuti oleh Random Forest dengan akurasi 85,08%, dan Naive Bayes dengan akurasi 73,91%. Ulasan pengguna didominasi oleh sentimen negatif, dengan topik-topik keluhan utama berkaitan dengan persepsi kemudahan pengguna, layanan pelanggan, dan kecepatan transaksi. Selain itu, dari pengukuran skor kualitas layanan, ditemukan bahwa faktor kunci yang berpengaruh signifikan terhadap persepsi kualitas layanan pengguna dalam konteks dompet digital adalah keandalan, kualitas informasi, dan responsivitas. Penelitian ini memiliki keterbatasan dalam mendeteksi atau mengklasifikasikan sentimen dari buzzer, yang sering memposting konten berulang untuk mempengaruhi opini publik. Ketidaktercakupan ini dapat menyebabkan bias dalam hasil sentimen. Adapun rekomendasi untuk meningkatkan kualitas layanan meliputi perbaikan stabilitas sistem, peningkatan informasi status transaksi, perbaikan layanan pelanggan, penambahan fitur reset nomor akun, dan optimasi kecepatan transaksi. Implementasi rekomendasi ini diharapkan dapat meningkatkan kepuasan dan loyalitas pengguna terhadap aplikasi LinkAja.

.....This research evaluates the service quality of the LinkAja digital wallet application through the analysis of online user reviews using a text mining approach. The research process includes review extraction, data pre-processing, sentiment analysis, complaint detection with topic modelling, service quality score measurement, and total score evaluation. A total of 50,626 review data were extracted from Google Play Store and Apple App Store. Service quality score measurement was conducted by identifying service quality dimensions based on related literature, as well as defining representative keywords that were validated through the Delphi method. The results showed that the Support Vector Machine (SVM) model performed best with 89.30% accuracy, followed by Random Forest with 85.08% accuracy, and Naive Bayes with 73.91% accuracy. User reviews were dominated by negative sentiments, with the main complaint topics related to perception of ease of use, customer service, and transaction speed. In addition, from the measurement of service quality scores, it was found that the key factors significantly influencing user perception of service quality in the context of digital wallets are reliability, information quality, and responsiveness. This research has limitations in detecting or classifying the sentiments of buzzers, who often post repetitive content to influence public opinion. This lack of coverage may cause bias in the sentiment

results. Meanwhile, the recommendations for improving service quality include improving system stability, improving transaction status information, improving customer service, adding account number reset features, and optimising transaction speed. The implementation of these recommendations is expected to increase user satisfaction and loyalty to the LinkAja application.