ANALISIS SENTIMEN PENGGUNA CITYMAPPER BERDASARKAN ULASAN PADA APP STORE DAN GOOGLE PLAY STORE MENGGUNAKAN ALGORITMA *SUPPORT VECTOR MACHINE*

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ABSTRAK

Aplikasi peta digital menjadi bagian penting dari kehidupan, memungkinkan pengguna merencanakan perjalanan, menemukan rute tercepat, dan mendapatkan informasi transportasi secara langsung. Salah satunya adalah Citymapper, dirancang untuk memberikan panduan komprehensif tentang transportasi publik, berjalan kaki, atau menggunakan kendaraan pribadi. Dibandingkan aplikasi sejenis, Citymapper menawarkan fitur khusus seperti prediksi waktu perjalanan multi-moda, pemberitahuan gangguan transportasi, dan panduan stasiun transit secara detail. Penelitian ini menggunakan metode *Support Vector Machine* untuk menganalisis sentimen pengguna terhadap aplikasi Citymapper berdasarkan ulasan di App dan Google Play Store. Data ulasan yang dikumpulkan dimulai dari September 2023 hingga Maret 2024 kemudian dilabeli secara manual oleh 3 anotator. Data akan melalui berbagai tahapan sebelum klasifikasi dilakukan, seperti tahap *preprocessing*, pembobotan kata dengan metode *Term Frequency – Inverse Document Frequency* (TF-IDF), dan pembagian data dengan rasio 80:20. Penelitian ini bertujuan untuk mengetahui hasil sentimen, akurasi, dan visualisasi dari algoritma SVM pada klasifikasi data ulasan penggunanya. Hasil penelitian menunjukkan bahwa model klasifikasi SVM memberikan kinerja yang baik. Untuk ulasan dari App Store, model mencapai akurasi sebesar 81%, presisi 85%, recall 92%, dan f1-score 89%. Sementara itu, untuk ulasan dari Google Play Store, diperoleh akurasi sebesar 87%, presisi 81%, recall 93%, dan f1-score 87%. Selain hasil klasifikasi, penelitian juga membuat visualisasi data berupa *word cloud* untuk mengidentifikasi kata-kata kunci yang sering muncul dalam ulasan positif dan negatif.

Kata Kunci: Analisis Sentimen, Peta Digital, Citymapper, *Support Vector Machine* (SVM).

SENTIMENT ANALYSIS OF CITYMAPPER USERS BASED REVIEWS FROM THE APP STORE AND GOOGLE PLAY STORE USING SUPPORT VECTOR MACHINE ALGORITHM

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ABSTRACT

Digital map apps have become an essential part of life, allowing users to plan trips, find the fastest routes, and get real-time transportation information. One such digital map app is Citymapper, which is designed to provide comprehensive guidance on public transportation, walking, or using private vehicles. Compared to similar apps, Citymapper offers special features such as multi-modal travel time predictions, transportation disruption notifications, and detailed transit station guides. This research uses the Support Vector Machine method to analyze user sentiment towards the Citymapper app based on reviews in the App and Google Play Stores. The review data collected from September 2023 to March 2024 was then manually labeled by 3 annotators. The data will go through various stages before classification is carried out, such as the preprocessing stage, word weighting with the Term Frequency - Inverse Document Frequency (TF-IDF) method, and data division with a ratio of 80:20. This study aims to determine the sentiment, accuracy and visualization results of the SVM algorithm in classifying user review data. The results showed that the SVM classification model provided good performance. For reviews from the App Store, the model achieved 81% accuracy, 85% precision, 92% recall, and 89% f1-score. Meanwhile, for reviews from the Google Play Store, the accuracy was 87%, precision 81%, recall 93%, and f1-score 87%. In addition to the classification results, the research also created a data visualization in the form of a word cloud to identify key words that often appear in positive and negative reviews.

Keywords: *Sentiment Analysis, Maps, Citymapper, Support Vector Machine (SVM).*