

ABSTRAK

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Judul Laporan Skripsi : Analisa Sentimen Pengguna Aplikasi Transportasi *Online Maxim* pada Situs Google Play Store Menggunakan Algoritma Naïve Bayes dan Random Forest
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Salah satu pengaruh dari perkembangan teknologi adalah semakin maraknya penggunaan transportasi *online* melalui media internet. Salah satu transportasi *online* yang banyak digunakan di Indonesia ialah Maxim yang aplikasinya dapat diunduh pada situs Google Play store. Di situs tersebut juga terdapat beragam ulasan pengguna, bisa berupa positif, negatif ataupun netral yang dapat digunakan sebagai Analisis sentimen untuk mengetahui apakah aplikasi tersebut diterima dengan baik dan bagi penyedia layanan dapat menganalisis tanggapan publik untuk meningkatkan kualitas layanannya. Proses analisa sentimen dilakukan dengan pengumpulan data, preprocessing data, Pelabelan Data otomatis dengan Lexicon VADER, Pembobotan Kata dengan TF-IDF, implementasi algoritma Naïve Bayes dan Random Forest serta Evaluasi Model menggunakan Accuracy Scores, Classification Report dan Confusion Matrix. Berdasarkan hasil pengujian, bahwa algoritma Random Forest memiliki kinerja yang lebih baik dengan nilai Akurasi sebesar 90,06%, Presisi 87%, Recall 86% dan F1-score 86%. sementara itu, algoritma Naïve Bayes memiliki nilai akurasi sebesar 75,91%, Presisi 78%, Recall 61% dan F1-score sebesar 63%. Selain itu, hasil dari klasifikasi sentimen terhadap data testing menggunakan algoritma Naive Bayes dan Random Forest menghasilkan sentimen positif sebesar 7956 dan 6514 yang dimana lebih banyak dari sentimen negatif ataupun netral. Dari hasil tersebut dapat disimpulkan bahwa transportasi *online Maxim* di Indonesia memiliki tingkat sentimen positif lebih besar dari pada tingkat sentimen negatif dan netral. Berdasarkan visualisasi wordcloud, untuk 5 kata teratas menggunakan algoritma naïve bayes didapatkan sentimen positif “*driver, good, friend, thanks, help*”, sentimen negatif “*driver, applic, order, map, cancel*” dan sentimen netral “*open, pleas, fix, applic, map*”. Lalu untuk algoritma random forest didapatkan sentimen positif “*driver, good, friend, like, thank*”, sentimen negatif “*driver, applic, order, cancel, map*” dan sentimen netral “*driver, maxim, applic, order, fast*”.

Kata Kunci: Analisa Sentimen, Maxim, Google Play Store, Naive Bayes, Random Forest

ABSTRACT

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Title Thesis : User Sentiment Analysis of Maxim Online Transportation Application on Google Play Store Site Using Naïve Bayes and Random Forest Algorithms
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One of the influences of technological developments is the increasingly widespread use of online transportation through internet media. One of the online transportation that is widely used in Indonesia is Maxim, whose application can be downloaded on the Google Play store site. On the site there are also various user reviews, which can be positive, negative or neutral which can be used as sentiment analysis to find out whether the application is well received and service providers can analyze public responses to improve the quality of their services. The process of sentiment analysis is carried out by collecting data, preprocessing data, automatic data labeling with Lexicon VADER, word weighting with TF-IDF, implementing Naïve Bayes and Random Forest algorithms and model evaluation using Accuracy Scores, Classification Reports and Confusion Matrix. Based on the test results, the Random Forest algorithm has better performance with an accuracy value of 90.06%, 87% precision, 86% recall and 86% F1-score. Meanwhile, the Naïve Bayes algorithm has an accuracy value of 75.91%, 78% precision, 61% recall and 63% F1-score. In addition, the results of the sentiment classification of the testing data using the Naive Bayes and Random Forest algorithms produced positive sentiments of 7956 and 6514 which were more than negative or neutral sentiments. From these results it can be concluded that Maxim online transportation in Indonesia has a greater positive sentiment level than negative and neutral sentiment levels. Based on wordcloud visualization, for the top 5 words using the naïve Bayes algorithm, positive sentiments "driver, good, friend, thanks, help", negative sentiments "driver, apply, order, map, cancel" and neutral sentiments "open, please, fix, apply, map". Then for the random forest algorithm, positive sentiments "driver, good, friend, like, thank", negative sentiments "driver, apply, order, cancel, map" and neutral sentiments "driver, maxim, apply, order, fast".

Keywords: Sentiment Analysis, Maxim, Google Play Store, Naive Bayes, Random Forest