

INTISARI

ANALISIS SENTIMEN BERBASIS ASPEK PADA ULASAN PENGGUNA APLIKASI STARBUCKS MENGGUNAKAN ALGORITMA SUPPORT VECTOR MACHINE

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Perkembangan transformasi digital di semua aspek bisnis saat ini telah mengubah cara perusahaan memberikan nilai tambah bagi bisnis mereka. Salah satu contohnya yaitu perusahaan bisnis kedai kopi Starbucks yang memanfaatkan tren teknologi aplikasi *mobile* dengan mengembangkan "*Loyalty Rewards App*". Namun, banyak ditemukan ulasan negatif di Google Play Store yang harus diperhatikan pihak pengembang. Belum ada penelitian pada ulasan tersebut sehingga sentimen dan informasi terkait aspek penting seperti aspek-aspek *usability* aplikasi masih belum diketahui. Penelitian ini bertujuan untuk mengetahui sentimen ulasan pengguna aplikasi Starbucks serta aspek-aspek *usability* aplikasi yaitu *learnability*, *efficiency*, *errors* dan *satisfaction*, menggunakan metode SVM, dengan menguji tiga jenis kernel yaitu Linear, Polinomial dan RBF. Tahap *preprocessing* data diikuti dengan ekstraksi fitur menggunakan TF-IDF. Untuk mendapatkan hasil klasifikasi yang lebih baik, juga dilakukan Hyperparameter tuning pada model SVM menggunakan GridSearchCV. Dataset diperoleh dari hasil *scraping* ulasan pengguna aplikasi Starbucks di Google Play Store. Hasil penelitian menunjukkan bahwa pembuatan model klasifikasi menggunakan SVM memiliki performa yang cukup baik yaitu dengan rata-rata skor dari skor *akurasi* sebesar 88.96%, *f1-score* 66.85%, *presisi* 75.77% dan *recall* 64.68%. Sementara itu, hasil analisis menunjukkan bahwa mayoritas sentimen bernilai negatif di seluruh aspek aplikasi terutama pada aspek *errors*, yang menandakan tingginya tingkat kesalahan pada sistem.

Kata kunci: analisis sentimen berbasis aspek, support vector machine, aspek *learnability*, aspek *efficiency*, aspek *errors*, aspek *satisfaction*, starbucks

ABSTRACT

**ASPECT BASED SENTIMENT ANALYSIS OF STARBUCKS APPLICATION USER
REVIEWS USING SUPPORT VECTOR MACHINE ALGORITHM**

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The development of digital transformation in all aspects of business today has changed the way companies add values to their business. One example is the coffee shop business company called Starbucks, which utilizes the trend of mobile application technology by developing a "Loyalty Rewards App". However, there are many negative reviews on the Google Play Store that developers should pay attention to. There has been no research on these reviews so that sentiment and information related to important aspects such as usability aspects of the application are still unknown. This study aims to determine the sentiment of Starbucks application user reviews as well as aspects of application usability namely learnability, efficiency, errors and satisfaction, using the SVM method, with three kernel functions namely Linear, Polinomial and RBF. The data preprocessing stage is followed by feature extraction using TF-IDF. To get better classification results, hyperparameter tuning is also performed on the SVM model using GridSearchCV. The dataset is obtained from scraping user reviews of the Starbucks application on the Google Play Store. The results showed that the classification modeling using SVM has a fairly good performance with an average score of 88.96% akurasi score, 66.85% f1-score, 75.77% presisi and 64.68% recall. Meanwhile, the analysis results show that the majority of sentiments are negative in all aspects of the application, especially in the errors aspect, which indicates a high error rate of the system.

Keywords: aspect based sentiment analysis, support vector machine, learnability aspect, efficiency aspect, errors aspect, satisfaction aspect, starbucks