

**Program Studi Sarjana Informatika
Fakultas Teknik dan Ilmu Komputer
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ABSTRAK

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Penggunaan Metode Support Vector Machine (SVM) dalam Menganalisa Sentimen Publik pada Aplikasi Stockbit di Sosial Media X

Perkembangan teknologi dan digitalisasi telah meningkatkan minat masyarakat terhadap investasi saham melalui *platform daring* seperti *Stockbit*. *Stockbit* merupakan salah satu aplikasi investasi saham yang populer di Indonesia karena menyediakan fitur lengkap, seperti analisis fundamental, diskusi komunitas investor, serta simulasi perdagangan saham secara virtual. Namun, persepsi pengguna terhadap aplikasi ini bervariasi, yang dapat mempengaruhi keputusan investasi. Oleh karena itu, penelitian ini bertujuan untuk menganalisis sentimen publik terhadap aplikasi *Stockbit* di media sosial X menggunakan metode *Support Vector Machine* (SVM). Penelitian ini menggunakan pendekatan kuantitatif dengan teknik pengambilan data melalui *crawling* dari media sosial X dalam rentang waktu 1 April 2022 hingga 1 April 2024. Proses analisis data mencakup *preprocessing teks*, *labelling data*, pembobotan kata dengan menggunakan *Term Frequency-Inverse Document Frequency* (TF-IDF), serta klasifikasi sentimen menggunakan algoritma SVM. Evaluasi model dilakukan menggunakan metrik *accuracy*, *precision*, *recall*, dan *f1-score* untuk menilai efektivitas klasifikasi. Hasil penelitian menunjukkan bahwa mayoritas pandangan publik terhadap aplikasi *Stockbit* bersifat positif (57,4%), diikuti oleh sentimen netral (26,5%) dan negatif (16,1%). Model SVM dengan *kernel polynomial* memberikan akurasi terbaik sebesar 96,67%, dibandingkan dengan *kernel* lainnya. Dengan hasil ini metode SVM terbukti efektif dalam mengklasifikasikan sentimen publik terhadap aplikasi *Stockbit*.

Kata Kunci: Analisis Sentimen, Investasi, Media Sosial X, Stockbit, Support Vector Machine

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ABSTRACT

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The Application of Support Vector Machine (SVM) Method in Analyzing Public Sentiment on the Stockbit Application on Social Media

Technological developments and digitization have increased public interest in stock investment through online platforms such as Stockbit. It is one of the most popular stock investment applications in Indonesia because it provides comprehensive features, such as fundamental analysis, investor community discussions, and virtual stock trading simulations. However, user perceptions of this application vary, which can influence investment decisions. Therefore, this study aims to analyze public sentiment towards the Stockbit application on social media X using the Support Vector Machine (SVM) method. This study uses a quantitative approach with data retrieval techniques by crawling from social media X in the time span from April 1, 2022 to April 1, 2024. The data analysis process includes text preprocessing, data labeling, word weighting using Term Frequency-Inverse Document Frequency (TF-IDF), and sentiment classification using the SVM algorithm. Model evaluation is performed using the metrics accuracy, precision, recall, and f1-score to assess the effectiveness of the classification. The results showed that the majority of public views on the Stockbit application were positive (57.4%), followed by neutral (26.5%) and negative (16.1%) sentiments. The SVM model with a polynomial kernel provided the best accuracy of 96.67%, compared to other kernels. With these results, the SVM method proved to be effective in classifying public sentiment towards the Stockbit application.

Keywords: *Sentiment Analysis, Investment, Social Media X, Stockbit, Support Vector Machine*