

VISUALISASI DATA ANALISIS SENTIMEN TERHADAP APLIKASI E-COMMERCE ZALORA BERDASARKAN ULASAN DI GOOGLE PLAY STORE MENGGUNAKAN METODE NAIVE BAYES CLASSIFIER

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ABSTRAK

Perdagangan elektronik, atau *e-commerce*, adalah aktivitas jual-beli melalui internet yang meliputi pembelian, penjualan barang, layanan, dan informasi secara *online*. Pertumbuhan *e-commerce* dipicu oleh kemajuan teknologi dan internet, yang memunculkan berbagai perusahaan *e-commerce*, termasuk ZALORA, sebuah platform *e-commerce* yang berfokus pada *fashion*, menghadapi tantangan dalam menjaga peringkatnya yang menurun di pasar yang kompetitif. Evaluasi dilakukan melalui analisis sentimen pengguna dengan metode *Naïve Bayes Classifier* terhadap ulasan di *Google Play Store*. Data dikumpulkan dari Desember 2022 hingga Oktober 2023. Data melalui tahapan *preprocessing*, pembobotan kata menggunakan *TF-IDF*, dan pembagian data. *Naïve Bayes* menghasilkan *accuracy* 86%, *precision* 95%, *recall* 88%, dan *F1-Score* 91% dengan rasio data latih dan uji 70:30. Selain hasil klasifikasi, terdapat hasil visualisasi *word cloud* beserta grafik frekuensi kata terbanyak yang digunakan untuk melakukan identifikasi sentimen positif dan negatif. Luaran lainnya yaitu dilakukan pembuatan sistem *website* sederhana menggunakan *Framework Streamlit* untuk melakukan visualisasi hasil.

Kata Kunci : Analisis Sentimen, *Google Play Store*, *Naïve Bayes classifier*, Zalora

DATA VISUALIZATION OF SENTIMENT ANALYSIS ON ZALORA E-COMMERCE APPLICATION BASED ON REVIEWS ON GOOGLE PLAY STORE USING NAIVE BAYES CLASSIFIER

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ABSTRACT

Electronic commerce, or e-commerce, is the activity of buying and selling goods and services over the internet, encompassing online purchases, sales, services, and information. The growth of e-commerce is driven by technological advancements and the internet, leading to the emergence of various e-commerce companies, including ZALORA, an e-commerce platform focusing on fashion, which faces challenges in maintaining its declining ranking in the competitive market. Evaluation is conducted through user sentiment analysis using the Naïve Bayes Classifier method on reviews from the Google Play Store. Data were collected from December 2022 to October 2023 and underwent preprocessing, word weighting using TF-IDF, and data splitting. Naïve Bayes achieved an accuracy of 86%, precision of 95%, recall of 88%, and F1-Score of 91% with an 70:20 ratio of training and testing data. In addition to classification results, there are visualization outputs such as word clouds and graphs depicting the frequency of most-used words for identifying positive and negative sentiments. Another output is the development of a simple website system using the Streamlit Framework for visualization purposes.

Keywords: *Sentiment Analysis, Google Play Store, Naïve Bayes classifier, Zalora*