

Analisis Ulasan Pelanggan Pada Sewa Kamera di Jemberkamera
Menggunakan Algoritme Naive Bayes (*Analysis of Customer Reviews on*
Camera Rentals at Jemberkamera Using Naive Bayes Algorithm)
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ABSTRACT

Jemberkamera utilizes Google Maps for customer interaction, but the large volume of informal and subjective reviews complicates manual service evaluations. This study develops a web-based system to classify review sentiments into positive, neutral, and negative categories using the Multinomial Naive Bayes algorithm. To handle the extreme data imbalance in the negative class, the Synthetic Minority Over-sampling Technique (SMOTE) is applied. A dataset of 2,492 reviews was extracted via the Apify platform, then processed through text preprocessing and Term Frequency-Inverse Document Frequency (TF-IDF) weighting. Testing results show that a 50:50 data split scenario combined with SMOTE achieved the most optimal performance, yielding the highest accuracy of 70.47%. The integration of SMOTE effectively improved the model's sensitivity in recognizing minority negative sentiments and reduced majority class bias. The application's visual dashboard helps Jemberkamera management to evaluate business services and objectively monitor customer satisfaction in order to improve quality based on digital opinion data.

Keywords: *Sentiment Analysis, Naive Bayes, SMOTE, Google Maps, Jemberkamera, TF-IDF*