SENTIMENT ANALYSIS TOWARDS PRODUCT "X" USING NAIVE BAYES

(Case Study: Sociolla Forum)

FRISCA DAMAYANTI
Program Studi Sains Data, Fakultas Sains & Teknologi
Universitas Teknologi Yogyakarta

ABSTRACT

The development of digital technology in the Industry 4.0 era has driven an increase in online shopping through e-commerce, including Sociolla which focuses on beauty products. The Sociolla forum allows users to provide product reviews, which are an important source of information. However, the large number of reviews available can be a challenge. Therefore, sentiment analysis is needed to process product reviews efficiently. This study will analyze the sentiment of product reviews X on the Sociolla forum using the Naïve Bayes algorithm because of its simplicity and effectiveness in text classification. Reviews will be classified into positive and negative sentiments. The model is evaluated using a confusion matrix to measure accuracy, precision, recall, and f1-score. The results show the highest accuracy of 81% on a 10% test data proportion, with 81% precision, 98% recall, and 89% F1-score. Accuracy at 20% and 30% test data is 77% and 75%, respectively. The results show that the Naïve Bayes algorithm is proven to be quite effective in classifying customer review sentiment, so it can provide insight for companies to improve product quality based on user opinions and help consumers in making purchasing decisions.

Keywords: Sentiment Analysis, Naïve Bayes, Sociolla, Classification, TF-IDF