

Abstract

The advancement of technology had caused a preference for online purchases, particularly beauty products, which are frequently sold on e-commerce platforms. These products elicit diverse customer reviews, an important aspect as they provide insights into customer satisfaction. Sentiment analysis is a method used to measure this satisfaction. Analyzing sentiment in beauty product reviews offers numerous benefits. Sellers gain insights for product development and marketing strategies, buyers make informed purchasing decisions, e-commerce platforms enhance user experience, and researchers refine sentiment analysis algorithms. This study evaluates the performance of sentiment analysis on beauty product reviews using a dataset from the Female Daily website, focusing on five aspects: AROMA, PACKAGING, PRICE, and PRODUCT. The system built uses Word2vec for feature extraction, combined with the Support Vector Machine classification feature for sentiment classification. The results indicate that the preprocessing stage, particularly stemming, significantly influences accuracy. The choice of Word2vec dimension is also crucial, with the study showing that a larger vector dimension of 300 in Word2Vec feature extraction yields better performance in all analyzed aspects. The results demonstrate that Word2Vec with a dimension of 300 and SVM with a linear kernel produce the best macro average F1-Score of 81.93%.

Keywords : Product reviews, sentiment analysis, Support Vector Machine, Word2Vec