ABSTRAK

Rezzi, Farendika. 2025. *Penerapan Algoritma Multinomial Naïve Bayes dalam Klasifikasi Sentimen Pengguna Shopee terhadap Produk Facial Wash Kahf*. Tugas Akhir. Program Sarjana. Program Studi Teknik Informatika. Universitas Muhammadiyah Jember.

Pembimbing: Ulya Anisatur Rosyidah, M.Kom; Ginanjar Abdurrahman, S.Si., M.Pd.

Perkembangan *e-commerce* memudahkan konsumen dalam memberikan ulasan terhadap produk, termasuk *facial wash* merek lokal Kahf. Ulasan tersebut dapat dianalisis untuk mengetahui persepsi konsumen melalui klasifikasi sentimen. Penelitian ini bertujuan untuk mengklasifikasikan sentimen pengguna Shopee terhadap produk *facial wash* Kahf menggunakan algoritma *Multinomial Naïve Bayes*. Data diambil dari ulasan pengguna Shopee dan dilakukan tahap *preprocessing* seperti *cleansing*, *case folding, tokenizing, stopword removal*, dan *stemming*. Fitur diekstraksi menggunakan metode *TF-IDF* dan data diuji menggunakan teknik *K-Fold Cross Validation* dengan nilai K = 4, 5, 6, dan 10. Hasil evaluasi model menggunakan *confusion matrix* menunjukkan bahwa algoritma *Multinomial Naïve Bayes* dapat digunakan secara efektif dalam klasifikasi sentimen dengan performa yang cukup baik dilihat dari metrik akurasi, presisi, dan recall. Penelitian ini diharapkan dapat menjadi referensi dalam memahami persepsi konsumen terhadap produk lokal berbasis analisis sentimen.

Kata Kunci: Sentimen, *Multinomial Naïve Bayes*, *Facial Wash*, Shopee, *Confusion Matrix*.

ABSTRACT

Rezzi, Farendika. 2025. *Application of Multinomial Naïve Bayes Algorithm in Sentiment Classification of Shopee Users toward Kahf Facial Wash Product*. *Undergraduate Thesis. Undergraduate Program. Informatics Engineering Study Program. Universitas Muhammadiyah Jember.*

Advisors: Ulya Anisatur Rosyidah, M.Kom; Ginanjar Abdurrahman, S.Si., M.Pd.

The development of e-commerce has made it easier for consumers to provide reviews of products, including the local facial wash brand Kahf. These reviews can be analyzed to understand consumer perception through sentiment classification. This research aims to classify Shopee user sentiment toward Kahf facial wash products using the Multinomial Naïve Bayes algorithm. The data were collected from Shopee user reviews and underwent preprocessing stages such as cleansing, case folding, tokenizing, stopword removal, and stemming. Features were extracted using the TF-IDF method, and the data were tested using K-Fold Cross Validation with K values of 4, 5, 6, and 10. The model's performance was evaluated using a confusion matrix, showing that the Multinomial Naïve Bayes algorithm can be effectively applied in sentiment classification with satisfactory performance based on accuracy, precision, and recall metrics. This study is expected to serve as a reference in understanding consumer perception of local products through sentiment analysis.

***Keywords**: Sentiment, Multinomial Naïve Bayes, Facial Wash, Shopee, Confusion Matrix.*