

ABSTRAK

Perkembangan pesat teknologi telah membawa transformasi yang signifikan pada bidang pembelajaran bahasa, salah satunya aplikasi *Cake* yang ada di *Playstore*, saat ini telah diunduh lebih dari 100 juta kali dengan ulasan lebih dari 1 juta pengguna. Seiring bertambahnya pengguna, aplikasi *Cake* menerima berbagai respon mulai dari keluhan hingga apresiasi dari pengguna berupa ulasan. Ulasan merupakan hal penting bagi pengembang untuk menjadi bahan evaluasi pengembangan kualitas aplikasi. Analisis sentimen dengan algoritma *Naïve-Bayes* dan *Lexicon-Based* dapat membantu memahami penilaian terhadap aplikasi *Cake*. Penelitian ini menerapkan pendekatan kuantitatif dengan metode deskriptif. Jumlah data yang digunakan sebanyak 4.500 ulasan pengguna di *google play store* dan diambil dengan teknik *web scraping*. Data yang telah diperoleh diberi label sentimen berdasarkan kamus *lexicon* dan diklasifikasikan menggunakan algoritma *Naïve-Bayes*. Dilakukan evaluasi menggunakan *confusion matrix* dengan tujuan mengukur ketepatan nilai akurasi dalam memprediksi data ulasan. Hasil analisis algoritma *Naïve-Bayes* menghasilkan nilai akurasi sebesar 76% didominasi sentimen positif dengan 437 ulasan, sentimen netral dengan 5 ulasan dan sentimen negatif dengan 7 ulasan. Selain itu analisis ekspresi emosi menunjukkan bahwa emosi senang merupakan emosi yang paling dominan dibandingkan emosi netral, marah, sedih dan takut. Hal ini menunjukkan bahwa algoritma *Naïve-Bayes* cukup efektif digunakan untuk menganalisis sentimen dan ekspresi pengguna pada ulasan aplikasi *Cake* di *Google Play Store*.

Kata Kunci : Analisis Emosi, Analisis Sentimen, *Cake*, *Lexicon-Based*, *Naïve-Bayes*

ABSTRACT

Technological advancements have significantly transformed language learning, particularly through mobile applications. One such application is the Cake App, which has been downloaded more than 100 million times and has received over one million user reviews. With the increasing number of users, the Cake App has generated a wide range of feedback, including both complaints and positive appreciation. These user reviews are valuable for developers to evaluate and improve the quality of the application. Sentiment analysis using Naïve Bayes and lexicon-based approaches can help in understanding user opinions toward the Cake App. This study employed a descriptive research design with a quantitative approach. A total of 4,500 reviews were collected from the Google Play Store using a web scraping technique. The collected data were labeled for sentiment based on a lexicon dictionary and subsequently classified using the Naïve Bayes algorithm. A confusion matrix was utilized to evaluate and measure the accuracy of the classification model. The results of the Naïve Bayes analysis showed an accuracy of 76%, with the majority of reviews classified as positive sentiment (437 reviews), followed by neutral sentiment (5 reviews) and negative sentiment (7 reviews). Furthermore, emotional expression analysis indicated that “happy” was the most dominant emotion compared to neutral, angry, sad, and scared emotions. These findings suggest that the Naïve Bayes algorithm is effective in analyzing user sentiment and emotional expression in reviews collected from the Google Play Store for the Cake App.

Keywords : *Emotional Analyze, Sentiment Analyze, Cake, Lexicon-Based, Naïve-Bayes*