ABSTRAK

Iswari, Ni Putu Ary Rara (2025), *Komparasi Metode Naïve Bayes Classifier Dan K-Nearest Neighbor Pada Analisis Sentimen Isu Sampah Di Bali*. Tesis, Ilmu Komputer, Program Pascasarjana, Universitas Pendidikan Ganesha.

Kata kunci : analisis sentimen, isu sampah, media sosial X, *Naïve Bayes Classifier*, *K-Nearest Neighbor*

Bali yang dikenal sebagai destinasi wisata populer di dunia kini menghadapi tantangan serius dalam pengelolaan sampah akibat meningkatnya aktivitas pariwisata. Isu sampah yang belum tertangani secara optimal menjadi sorotan publik melalui media sosial, yang dapat memengaruhi citra Bali di mata dunia. Penelitian ini bertujuan untuk menganalisis sentimen masyarakat terhadap isu sampah di Bali berdasarkan komentar masyarakat di platform media sosial X, serta membandingkan performa dua metode klasifikasi dalam analisis sentimen, yaitu *Naïve Bayes Classifier* (NBC) dan *K-Nearest Neighbor* (K-NN). Komentar pengguna diklasifikasikan ke dalam sentimen positif dan negatif, kemudian dianalisis menggunakan pendekatan machine learning. Setelah data melalui tahap preprocessing meliputi normalisasi, pembersihan data (cleansing), case folding, tokenizing, stopword removal, dan stemming dilakukan evaluasi performa. Diperoleh hasil akurasi antara metode *Naïve Bayes Classifier* (NBC) dan *K-Nearest Neighbor* (K-NN) dalam analisis sentimen terhadap isu sampah di Bali berdasarkan komentar pengguna dari platform X menunjukkan bahwa metode NBC menghasilkan akurasi sebesar 80%. Sementara itu, metode K-NN menghasilkan akurasi yang bervariasi, yaitu antara 74% hingga 76%, tergantung pada nilai k yang digunakan. Hasil penelitian ini diharapkan dapat memberikan gambaran mengenai metode klasifikasi yang paling efektif dalam konteks analisis sentimen isu lingkungan.

ABSTRACT

Iswari, Ni Putu Ary Rara (2025), Comparison of Naïve Bayes Classifier and K-Nearest Neighbor Methods in Sentiment Analysis of Waste Issues in Bali. Thesis, Computer Science, Postgraduate Program, Universitas Pendidikan Ganesha.

Keywords : Sentiment Analysis, Waste Issue, Social Media X, Naïve Bayes Classifier, K-Nearest Neighbor

Bali, known as a popular tourist destination worldwide, is now facing serious challenges in waste management due to increased tourism activity. The issue of waste that has not been optimally addressed has become a public spotlight through social media, which can affect Bali's image in the eyes of the world. This study aims to analyze public sentiment towards the waste issue in Bali based on public comments on social media platform X, and to compare the performance of two classification methods in sentiment analysis, namely Naïve Bayes Classifier (NBC) and K-Nearest Neighbor (K-NN). User comments are classified into positive and negative sentiments, then analyzed using a machine learning approach. After the data goes through a preprocessing stage including normalization, data cleaning, case folding, tokenizing, stopword removal, and stemming, a performance evaluation is carried out. The accuracy results obtained between the Naïve Bayes Classifier (NBC) and K-Nearest Neighbor (K-NN) methods in sentiment analysis towards the waste issue in Bali based on user comments from platform X show that the NBC method produces an accuracy of 80%. Meanwhile, the K-NN method produces varying accuracy, namely between 74% to 76%, depending on the value of k used. The results of this study are expected to provide an overview of the most effective classification methods in the context of environmental issue sentiment analysis.