

ABSTRAK

Penurunan angka pernikahan di Indonesia menjadi isu sosial yang menarik untuk dianalisis melalui opini publik di media sosial. Penelitian ini menggunakan metode *Sample, Explore, Modify, Model, and Assess* (SEMMA) dengan algoritma *Bidirectional Encoder Representations from Transformers* (BERT) untuk melakukan analisis sentimen komentar YouTube terkait topik tersebut. Data dikumpulkan menggunakan teknik *crawling* dan diolah menggunakan *text preprocessing* serta *Easy Data Augmentation* (EDA) untuk penyeimbangan kelas. Model dilatih menggunakan delapan skenario, dengan skenario kedua memperoleh akurasi tertinggi sebesar 98.52%, F1-score 98.52%, *precision* 98.55%, dan *recall* 98.52% pada data validasi. Hasil analisis sentimen mengungkapkan kata kunci dominan yang berkaitan dengan nilai keluarga, ekonomi, dan pandangan sosial. Temuan ini diharapkan dapat menjadi rujukan dalam perumusan kebijakan dan program literasi pernikahan yang relevan dengan kondisi masyarakat Indonesia.

Kata Kunci: Analisis Sentimen, BERT, SEMMA, *Deep Learning*, Pernikahan



ABSTRACT

The decline in marriage rates in Indonesia has become a significant social issue that warrants analysis through public opinion on social media. This study employs the Sample, Explore, Modify, Model, and Assess (SEMMA) methodology combined with the Bidirectional Encoder Representations from Transformers (BERT) algorithm to perform sentiment analysis on YouTube comments related to the topic. Data were collected using crawling techniques and processed through text preprocessing as well as Easy Data Augmentation (EDA) to balance class distributions. The model was trained using eight scenarios, with the second scenario achieving the highest performance: 98.52% accuracy, 98.52% F1-score, 98.55% precision, and 98.52% recall on the validation set. Sentiment analysis results revealed dominant keywords associated with family values, economic factors, and social perspectives. These findings are expected to serve as a reference for formulating policies and marriage literacy programs relevant to Indonesian society.

Keywords: *Sentiment Analysis, BERT, SEMMA, Deep Learning, Marriage*

