

ABSTRACT

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SENTIMENT ANALYSIS OF BCA MOBILE APPLICATION ON GOOGLE PLAYSTORE USING BIDIRECTIONAL ENCODER REPRESENTATIONS FROM TRANSFORMERS (BERT) METHOD

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Keywords: Sentiment Analysis, BCA Mobile, BERT Method

(xiii + 70 + Appendices)

This study aims to analyse user sentiment towards the BCA Mobile app based on reviews from Google Play Store. By understanding user perceptions, this research is expected to assist app developers in improving service quality. A total of 5000 reviews were collected through a scraping process and analyzed using the BERT method, specifically the IndoBERT-base model. The dataset underwent preprocessing, followed by splitting into training, validation, and testing sets. The model was trained using batch size 32, learning rate of $2e-5$, and 5 epochs. The results show that the model successfully identified positive sentiment with a high F1-score of 0.82 on the test data, but struggled to recognize neutral sentiment (F1-score 0.23). The overall accuracy reached 73% on the test data, with signs of overfitting after the third epoch, where validation accuracy stagnated despite an increase in training accuracy. This study provides insights into user perceptions of the BCA Mobile app and highlights the importance of balanced data distribution to improve the model's ability to recognize all sentiment categories. Additionally, it is recommended to increase the dataset size and explore models with larger capacities to improve the analysis results.

References (2019 – 2024)