

***Public Sentiment Analysis of President Jokowi's Leadership Using Natural
Language Processing (NLP)***

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ABSTRACT

Online media plays an important role in shaping public perception of government policies, including President Joko Widodo's leadership in the economic sector. The large number of news articles published online makes manual sentiment Analysis less efficient. Therefore, this study aims to apply a Natural Language Processing (NLP) approach to analyze public sentiment toward President Jokowi's leadership based on online news articles. The dataset used in this study consists of 8,934 sentences obtained from economic news articles. The research stages include data collection, sentiment labeling, text preprocessing, feature Extraction using Term Frequency-Inverse Document Frequency (TF-IDF), model training using Logistic Regression, and model evaluation using accuracy, Precision, Recall, F1-Score, Confusion Matrix , and expert language validation. The testing results show that the Logistic Regression model with TF-IDF feature representation achieved an accuracy of 89.20%. In addition, evaluation using 129 expert-validated data samples produced an accuracy of 86.82%, with 112 data samples correctly predicted according to the expert validation results. These findings indicate that the combination of TF-IDF and Logistic Regression is able to classify news article sentiment into positive, negative, and neutral classes fairly well. However, the model still has limitations in distinguishing positive and neutral sentences, especially in news sentences that are informative and contain implicit sentiment. This study is expected to serve as a reference for the development of sentiment Analysis systems based on Indonesian news texts.

Keywords: *Sentiment Analysis, Natural Language Processing , TF-IDF, Logistic Regression, President Jokowi.*