PUBLIC OPINION SENTIMENT ANALYSIS ON THE MOVEMENT OF THE CAPITAL OF INDONESIA USING THE K-NEAREST NEIGHBOR ALGORITHM

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ABSTRACT

The relocation of Indonesia's capital city from Jakarta to East Kalimantan is a significant policy that has elicited diverse responses from the public. The rationale underlying this policy is multifaceted, encompassing considerations such as the alleviation of Jakarta's burden, the promotion of equitable development, and the enhancement of infrastructure beyond the Java region. Nevertheless, the relocation plan has given rise to a range of opinions and reactions among the community. The present study aims to analyze public sentiment towards the policy by utilizing sentiment analysis techniques based on the K-Nearest Neighbor (KNN) algorithm. The data presented in this study was obtained from the Twitter social media platform through crawling techniques, which facilitate the automated collection of substantial amounts of data. Subsequent to data acquisition, a series of processing stages are performed, including data preprocessing, tokenization, normalization, and removal of irrelevant words. Subsequent to the completion of the preprocessing stage, the data is segmented into two distinct groups: training data and test data. These groups are then utilized in the KNN model training process. The KNN algorithm was selected due to its simplicity and its ability to classify text based on proximity between data. In this study, sentiment is categorized into two types: positive and negative. Of the total 4,241 tweets analyzed, approximately 71.5% expressed a positive sentiment regarding the relocation of the capital city, while the remaining 28.5% conveyed a negative sentiment. Tweets with positive sentiments typically included phrases such as "modern city," "equitable development," and "economic progress," indicating support for this policy, particularly in terms of equitable development and infrastructure. Conversely, tweets with negative sentiments often raised concerns about "cost," "environmental impact," and "project sustainability," reflecting public apprehension about the economic and ecological consequences of relocating the capital. The findings of this study demonstrate that sentiment analysis can serve as an effective tool for understanding public perceptions of significant policy changes. By analyzing public sentiment patterns, the government can develop more effective communication strategies, address public concerns, and implement measures that align more closely with public aspirations. Furthermore, the insights gained from this analysis can inform the creation of policies that are more responsive and inclusive.

Keywords: Capital city move, Sentiment analysis, K-Nearest Neighbor, Public opinion, Twitter.