

Analisis Sentimen Ulasan Aplikasi Raya Digital Bank menggunakan Metode *Word2Vec* dan *Support Vector Machine*

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Abstrak

Perkembangan teknologi digital telah memicu transformasi besar dalam industri perbankan, mendorong bank digital seperti Raya Digital Bank untuk menghadirkan layanan inovatif. Ulasan pengguna di *Google Play Store* menjadi sumber informasi penting bagi bank digital untuk meningkatkan kualitas layanan mereka. Penelitian ini bertujuan untuk menganalisis sentimen ulasan pengguna aplikasi Raya Digital Bank menggunakan metode *Word2Vec* untuk menghasilkan representasi vektor kata dan *Support Vector Machine* (SVM) sebagai algoritma klasifikasi sentimen. Data ulasan sebanyak 2.173 dikumpulkan menggunakan teknik *scraping* dan melewati tahapan *preprocessing* seperti *cleansing*, *case folding*, *tokenisasi*, *stopword removal*, dan *stemming*. Penelitian ini menguji empat skenario, meliputi pengaruh proporsi data latih, penggunaan *stemming*, dimensi vektor *Word2Vec* (100 dan 300), serta berbagai kernel pada SVM (Linear, *Polynomial*, RBF, dan *Sigmoid*). Hasil menunjukkan bahwa model dengan proporsi data latih 80%, penggunaan *stemming*, dimensi vektor 100, dan kernel Linear menghasilkan performa terbaik dengan *F1-Score* mencapai 82%.

Kata kunci: : analisis sentimen, Raya Digital Bank, *Word2Vec*, *Support Vector Machine*, *Google Play Store*

Abstract

The advancement of digital technology has drives significant transformation in the banking industry, encouraging digital banks such as Raya Digital Bank to deliver innovative services. User reviews on *Google Play Store* serve as a vital source of information for digital banks to improve the quality of their services. This study aims to analyze the sentiment of user reviews for the Raya Digital Bank application using the *Word2Vec* method to generate word vector representations and *Support Vector Machine* (SVM) as a sentiment classification algorithm. A total of 2,173 reviews were collected using scraping techniques and underwent preprocessing stages such as *cleansing*, *case folding*, *tokenization*, *stopword removal*, and *stemming*. The study tested four scenarios, including the influence of training data proportions, the use of *stemming*, *Word2Vec* vector dimensions (100 and 300), and various SVM kernels (Linear, *Polynomial*, RBF, and *Sigmoid*). The results indicated that the model with 80% training data proportion, the use of *stemming*, 100-dimensional vectors, and a Linear kernel achieved the best performance with an *F1-Score* of 82%.

Keywords: sentiment analysis, Raya Digital Bank, *Word2Vec*, *Support Vector Machine*, *Google Play Store*.
