

## **Abstract**

**The rise of e-commerce development in Indonesia has resulted in many new marketplaces, one of which is the Lazada application. In the application, of course, there are many experiences experienced by users. Users can provide reviews on the strengths, weaknesses, and problems of the application. However, with so many user reviews, finding important information that suits your needs will be quite difficult. Therefore, sentiment analysis can be one of the solutions to solve this problem, by processing user review data and getting comprehensive information about the quality of the Lazada application. In an effort to improve understanding of the quality of the Lazada app, this research applies sentiment analysis methods using Word2Vec and Support Vector Machine (SVM). The focus of the research involves evaluating the impact of stemming in the preprocessing stage as well as exploring the performance of Word2Vec on sentiment analysis results. Word2vec can convert user review words into vector representations that pay attention to semantic relationships, this improving the understanding of review content. In addition, SVM as a classifier has a proven ability to separate positive and negative reviews and overcome high dimensionality issues. The system built using lemmatization with 300 Word2vec dimensions, along with SVM RBF classification without stemming has the highest performance value. Thebest model of this study produced an F1-Score value of 87%**

**Keywords: sentiment analysis, SVM, Word2Vec, Lazada, E-Commerce**