# ABSTRACT

## COMPARISON OF RESTOCK PREDICTION METHODS WITH K-NEAREST NEIGHBOR (K-NN) AND SUPPORT VECTOR MACHINE (SVM) APPROACHES

Oleh

Eva Mahdyta Kiswana (21103059)

*Inventory management is a crucial aspect of supermarket operations to prevent overstocking or stockouts, which can lead to financial losses. This study aims to compare two restocking prediction methods, K-Nearest Neighbor (K-NN) and Support Vector Machine (SVM), to improve stock prediction accuracy in a supermarket. Sales data served as the basis for implementing these algorithms. The research steps included data collection, preprocessing, algorithm implementation, and performance evaluation using accuracy metrics. The results indicate that K-NN achieved an accuracy of 88.75% and SVM achieved an accuracy of 88.26%, with K-NN performing better overall. This study is expected to assist supermarkets in optimizing inventory management and provide insights for developing more effective stock prediction systems.*

***Keywords****: Inventory management, K-Nearest Neighbor (K-NN), Restocking prediction, Support Vector Machine (SVM), Supermarket.*