

## ABSTRACT

### STOCK PRICE PREDICTION AT PT. KALBE FARMA USES THE SUPPORT VECTOR REGRESSION ALGORITHM

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*The digital era is increasingly developing, followed by the emergence of many applications providing stock buying and selling services. Decision making in buying and selling shares is influenced by many factors that cause share prices to rise and fall in a short time. One of the reasons why share prices rise is because of high demand, while share prices fall because of high supply. Fluctuating share prices mean buying and selling shares carries a high risk of loss. The history of the rise and fall of stock prices in time series data from day to day is used as training data to create a stock price prediction system. Stock price history is used to predict stock prices with the aim of applying and knowing the performance of the Support Vector Regression (SVR) algorithm in PT stock predictions. Kalbe Farma Tbk. The machine learning method used in this research is stock price prediction with the SVR algorithm. The data used is PT Kalbe Farma Tbk share data from January 2017 to December 2023, then divided into training data and testing data. The results show the best stock prediction test from a linear kernel with an MSE of 656.2709; RMSE 25.6177; and R-Square of 0.9837.*

**Keywords:** *Machine Learning, PT Kalbe Farma Stock, Predictions, Stocks, SVR.*