

Abstract

In today's digital era, the trend of payments with electronic money is rising. Some people have switched to do their way to the modern method such as electronic money. This is to improve the efficiency of the financial system. However, with the convenience and speed provided, if electronic money is not being controlled properly, this can cause an unmanageable price of goods. In managing the risk of using electronic money, it is required to forecast the nominal of electronic money in Indonesia. This paper implements multivariate data analysis with variables such as nominal electronic money transaction, volume electronic money transaction, and Money supply (M1) to forecast nominal electronic money transactions. The methods used are Vector Autoregressive Moving Average (VARMA) and Support Vector Regression (SVR). The results of the forecasting model were compared using Mean Absolute Percentage Error (MAPE). According to the research, the SVR model had a better outcome than VARMA model, with a MAPE value of 3.577 %. Its shows that the forecast data of the SVR model is close to the actual data.

Keywords: Electronic money, forecasting, multivariate time series, SVR, VARMA.