

Abstract

The exchange rate is the rate at which one country's currency can be exchanged for other currencies, play an important role in controlling the dynamics of the exchange market. Therefore, forecasting the exchange rate becomes interesting as a policy determination. The combined models ARIMA and ANN called Artificial Neural Network model (p,d,q) . Results error and differencing obtained from ARIMA models will be used in the model Neural Network architecture Multi Layer Perceptron Backpropagation algorithm. ARIMA modeling linear nature of the data and the ANN model the non-linear nature of the data. Historical data used in the system is the data of Rupiah exchange rate against the US dollar within the period January 2010 to June 2015. After the prediction, the result of measurement performance, RMSE 60.43385, 44.40632 MAE and MAPE 0.362984936 %. It can be concluded that the method of Artificial Neural Networks (p,d,q) can be applied in the forecasting system Rupiahs exchange rate against the US Dollar, but not significant better than ARIMA or ANN only.

Keywords : Exchange rate, ARIMA, ANN, Artificial Neural Network (p,d,q)