

ABSTRACT

Gold is a precious metal that is soft and malleable. Forecasting is a way to estimate what will happen in the future based on past data. The purpose of gold price forecasting is provide predictions of gold price movements in the future and help make optimal investment decisions. Gold price forecasting uses data from January 2015 to October 2024. The methods used are Double Exponential Smoothing Holt and Fuzzy Time Series S. R. Singh. The reason for choosing these two methods is compare the performance of classical forecasting method with the modern fuzzy method in predicting gold prices. Accuracy calculations use Mean Absolute Percentage Error (MAPE). This study obtained MAPE value for Double Exponential Smoothing Holt manually of 3.290% and R-Studio software of 3.290%. Meanwhile, Fuzzy Time Series S. R. Singh obtained MAPE value manually of 2.645% and R-Studio software of 2.444% so that both methods showed very good forecasting ability because MAPE value was <10%. Based on calculation results, it can be concluded that Fuzzy Time Series S. R. Singh has a smaller MAPE value than MAPE value of Double Exponential Smoothing Holt, so Fuzzy Time Series S. R. Singh is more accurate forecasting than Double Exponential Smoothing Holt.

Keywords: Gold Price, *Double Exponential Smoothing Holt*, *Fuzzy Time Series S. R. Singh*, MAPE.