INFLATION MODELING IN SEMARANG, YOGYAKARTA, AND SURAKARTA CITY BY USING GSTAR APPROACH

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ABSTRACT

This Final Project presents the result of the study of inflation modeling in Semarang, Yogyakarta, and Surakarta city by using GSTAR approach (Generalized Space Time Series Autoregressive). GSTAR method is a time series multivariate modeling that pays attention to the spatial effects. Considering that each city requires the surrounding cities to provide commodities that cannot be fulfilled by the city involved itself, thus is creates the dependency intercity in the fulfillment of the needs of the commodity. The definition of inflation itself is the process of increasing the price of goods and services in general and it is continuous. The rate of inflation must be able to be controlled by the government since it can disrupt the economic stability. In this study, the GSTAR modeling include two models, those are GSTAR model by using all variables, and GSTAR model by using only significant variables. The result of the modeling indicate that the best model with the smallest RMSE values in Semarang city with the normalization weights of cross-correlation by using only significant variables. As for the inflations in Yogyakarta and Surakarta city, their best model with the equal weights by using only significant variables.

Keywords : GSTAR, Inflation, Equal Weights, Inverse Distance, Cross-Correlation.
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