

Analysis of Regional Economic Growth and Trade Network with Geographically Weighted Regression

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ABSTRACT

The growth of motorized vehicle ownership (PKKB) in each region is quite diverse, not least in East Java Province. The diversity of PKKB can be influenced by local factors which are important to be studied so that vehicle growth can be anticipated properly. This study aims to evaluate the geographic weighted regression model with the MM estimator (Estimation RGWR MM) to analyze PKKB in East Java. The results showed that the RGWR MM estimator model produced a more accurate PKKB estimator based on the explanatory variables of HDI, road length, poverty gap, sex ratio, and the number of universities that were accurate compared to other models formed. PKKB increases at lower income levels and decreases at higher income levels. In addition, there are significant differences in the influence of the five explanatory variables in each region. Districts/cities located near the capital city of East Java Province tend to have many explanatory variables that have a significant effect compared to regencies/cities that are far from the provincial capital.

Kata Kunci: *Motor vehicle ownership growth, Robust GWR*