

ABSTRAK

Judul : Pemodelan Kemiskinan di Jawa Barat Menggunakan
Geographically Weighted Regression
Pembimbing : Dr. Yusep Suparman, S.Si, M.Sc
Co-Pembimbing : Dr. Bertho Tantular, S.Si., M.Si
Nama : Abdurrohman Shaleh K
NPM :140610170068

Model *Geographically Weighted Regression* (GWR) adalah salah satu metode analisis spasial yang dapat digunakan untuk melakukan analisis dengan pemberian pembobot berdasarkan jarak setiap lokasi pengamatan secara geografis serta asumsi memiliki keragaman spasial. Maksud dari penelitian ini adalah untuk memodelkan kemiskinan melalui GWR di Jawa Barat, dan diharapkan dapat memperoleh taksiran besar pengaruh faktor faktor kemiskinan yang berbeda dari di setiap wilayah kabupaten/kota di Jawa Barat. Hal ini dikarenakan dianggap bahwa kemiskinan suatu wilayah dipengaruhi oleh kemiskinan di wilayah sekitarnya seperti yang dinyatakan oleh Tobler (*Tobler's first law of geography*) dalam Schabenberger dan Gotway (2005) "everything is related to everything else, but near things are more related than distant things". Analisis dilakukan dengan model regresi linier multipel. Selanjutnya melakukan pengujian menggunakan model GWR dengan fungsi pembobot kernel gaussian, bi-square dan eksponensial. Membandingkan nilai R^2 dan AIC antara model GWR dengan Program R dan didapatkan bahwa Kernel bi-square yang paling sesuai. Lalu dari hasil pengujian kesesuaian model didapat bahwa ternyata tidak ada perbedaan signifikan antara model regresi linear dan GWR.

Kata Kunci : *Geographically Weighted Regression*, kemiskinan

ABSTRACT

Title : Modeling Poverty in The Province of West Java Using Geographically Weighted Regression
Supervisor : Dr. Yusep Suparman, S.Si, M.Sc
Co-Supervisor : Dr. Bertho Tantular, S.Si., M.Si
Name : Abdurrohman Shaleh K
NPM :140610170068

The Geographically Weighted Regression (GWR) model is one of the spatial analysis methods that can be used to conduct analyses with weighting based on the geographical distance of each observation location and assumes spatial heterogeneity. The purpose of this research is to model poverty through Geographically Weighted Regression in West Java, with the aim of obtaining large estimates of the influence of different poverty factors in each district/city in West Java. This is because it is considered that the poverty of an area is influenced by the poverty in its surrounding areas, as stated by Tobler (Tobler's first law of geography) in Schabenberger and Gotway (2005): "everything is related to everything else, but near things are more related than distant things." The analytical steps performed involved testing with multiple regression model. Subsequently, testing was carried out using the Geographically Weighted Regression (GWR) method with Gaussian, bi-square, and exponential kernel weighting functions. By comparing the values of R^2 and AIC between the GWR models using R programming, it was found that the bi-square kernel was the most suitable. Furthermore, the model adequacy testing results revealed that there was no significant difference between the multiple regression and GWR model.

Keyword : Geographically Weighted Regression, poverty