

Factors and Spatial Pattern Analysis of Land Price

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SUMMARY

Based on Presidential Decree Number 63 Year 2013 about National Land Agency Article 25 point d about the implementation of land acquisition for development activities in the public interest needs the fast, reliable, fair and independent land valuation, which the results of the assessment for the land causes a lot of conflict of interest and horizontal conflict due to the aggrieved stakeholders. To get the fast, reliable, fair and independent assessment result, factor analysis and the spatial pattern of land prices are required, spatial regression method can be used to showing land price factors spatially, to identify spatial pattern of land price, to identify imaginary land values zones and also to find out the effect of spatial dependence on nearest neighbors. The results are expected to reduce appraiser subjectivity in assessing land prices. This study uses Global Moran's I index, regression maximum likelihood spatial lag and spatial error and Moran's scatterplot to identify factors and spatial pattern that influence land prices in accordance with land market price and land tax value (NJOP). There are five variables used: the distance to the city center, the distance to the nearest university, the distance to the nearest station, the average house size, and the number of buildings. The results show that the significant spatial factors affecting land prices are the distance to city center (51.28%), the distance to the nearest university (18.21%), the distance to the nearest station (24.29%) and the number of buildings factor (24.83%). The average house size factor has no significant effect on land prices according to the market. Meanwhile, the significant factor which influence land tax value are the distance to the city center (24.98%), the distance to the nearest university (17.20%), the distance to the nearest station (21.52%) and the number of buildings (27.37%), while the average house size factor has no significant effect on land tax value (NJOP). The spatial pattern of land price in the market is identified having systematic pattern or clustered. Spatial lag models can explain the variation of land market price according to the value of $\rho(\text{rho})$ 19.62% and variation land tax value with value $\rho(\text{rho})$ 20.31%. The spatial error models can explain the variation of land market price with $\lambda(\text{lambda})$ 24.96% and the land tax value of $\lambda(\text{lambda})$ 25.51%. However, as conclusion, all results are not strong enough to show the effect of spatial dependence on nearest neighbors.