

## **Spatial Patterns Identification of Land Prices using Spatial Cluster Analysis Methods for Submarket Allocation**

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**Abstract:** As a highly valuable resource, land as a commodity and valuable asset must be monitored regularly. Planning and controlling for land use must be considered. With the differences in facilities, infrastructure, utilities and community characteristics in each region, the price of land in each region may varies. This variance will form a submarket area. Submarket identification is important because property prices in different submarkets are determined by different functional relationships. Many studies used predefined or otherwise convenient geographical boundaries to identify submarkets (Bourassa et al, 1999), other literature has adopted principal component analysis and clustering as more systematic methods to delineate submarket. This study will use spatial cluster analysis to identify land price pattern in Bandung. Spatial Cluster Analysis method is a method that can be used to analyse spatial pattern of observed features. Unlike other objects, the price of land has a strong attachment to the position and location where the object is located (Spatial based unit). The use of the spatial cluster analysis method is expected to provide a better understanding of land prices distribution pattern in specific area, to then be able to analyse what driving factors are driving the price of land in each submarket produced by the model. There are four spatial cluster analysis method that will be used in this study, Average Nearest Neighbour, High/Low Clustering (Getis-Ord General G), Multi Distance Spatial Cluster Analysis (Ripley's K Function) and Spatial Autocorrelation (Moran's I). This study will analyse which method that fit well with land price characteristic data.

**Keywords:** land price, Spatial Cluster Analysis.