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Les défis de développement pour les villes et les régions dans une Europe en mutation

Spatial correlation study between house prices and railway infrastructure in Greece through Hedonic modelling and Geographic Information Systems (GIS)

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Référence à la session / reference to the session

A2 - Land use transport interaction (LUTI)

Résumé / Summary

This paper explores a framework that combines Geographic Information System (GIS) with Hedonic pricing method in order to identify a possible spatial correlation between apartment values and railway infrastructure in Greece. Several studies, regarding foreign cities, showed that properties close to railway infrastructure tend to have higher prices than the properties which were farther.

In order to verify this relation in Greece, this study focuses on the Athens Central Station (Stathmos Larisis). The study area was defined through a buffer zone of approximately 1km around Athens Central Station. Data originated from various house sales websites in order to take into account the market prices. Real estate prices were defined based on hedonic modelling and various Geographic Information Systems (GIS)

techniques. Results were evaluated via statistical methods [e.g. Ordinary Least Squares (OLS)]. Results showed that apartment values with a low proximity in railway infrastructure tend to be lower than the ones that were farther. Thus, several actions were proposed to be taken in upgrading the existing railway infrastructure in order for the housing prices of neighboring areas to be further improved.

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