Geospatial Information to Support Real Estate Valuation

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SUMMARY

The supply of free available geospatial information strongly increased in the last decade and will expand in the upcoming period of digitalization furthermore. Additionally, in Europe the nationwide supply of geospatial data has significantly accelerated and improved on the basis of the INSPIRE Directive (Directive 2007/2/EG of the European Parliament and the Council of Europe on „Infrastructure for Spatial Information in the European Community“ (INSPIRE). INSPIRE determines a list of 34 spatial information (geodata) which should be available and accessible on a nationwide level in each EU-country since this year (2019).

On the other hand, real estate valuation often is struggling and limited in accuracy because of a lack of appropriate data. This is especially relevant in valuation approaches based on the comparison of properties and their location. In this research we try to bring these aspects together: Is it possible to use the increasingly available geodata in real estate valuation? Which geodata are relevant in order to support market value estimation? Where and how are these geodata available? Which is its importance according to the market value (weighing)?

In the focus of the model which was created to answer the research questions, is a fundamental influence factor according to market value – the determination of a property’s “site quality”. This indicator corresponds to the very important aspect of the “location”. The paper explains the model to derive the quality of a location from a set of geodata. The results are differentiated due to four sub-markets (residential, office, retail, logistic market). The models are tested in Lower Saxony, Germany, and are validated with the help of different market results. The practical needs for a supporting model are high, because the number and availability of direct real estate market data sets (sales cases) are often insufficient. In these cases the developed model is intended to support real estate value assessment and market analysis with additional information, in particular in locations

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with few transactions. It contributes to improve transparency in the real estate market, a priority objective of the work of the appraisal committees in Germany.