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The Potential of Artificial Intelligence Methods In Land Price Forecasting*

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Abstract

This article presents the results of the analysis of the possibilities, potential and limitations of the use of artificial intelligence methods in predicting land prices. The aim of the publication is to systematize the factors affecting the price of land on the Polish market, which may be included in predictive models using AI in the near future. The authors distinguished between the value of the property, the offer price and the transaction price, emphasizing their importance in the context of the real estate market. It analysed non-measurable factors such as ambient odour, easements, terrain, neighbourhood and noise, assessing their applicability as data for AI models. Measurable factors affecting the value of real estate include location, technical condition and demographic data. It was noted that the quality of input data, appropriate selection and calibration of models, as well as interpretability and transparency of results are crucial for the effectiveness of AI models. The challenge associated with the digitalization of unmeasurable factors, which, although difficult for AI algorithms to capture, significantly impact real estate prices, was emphasized. According to the authors, it is also important to maintain transparency and interpretability of the results of models using artificial intelligence, so that investors can make informed investment decisions based on them.

Keywords: Artificial intelligence, land real estate, valuation, forecasting

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