

Reforming Real Estate Valuation for Financial Auditors with AI:

**An In-Depth Exploration of Current
Methods and Future Directions**

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Abstract

Artificial Intelligence (AI) is changing real estate valuation with innovative approaches. This article examines several AI methods – Regression Models, Decision Trees, Random Forests, Artificial Neural Networks, and XGBoost – and explores their applications for improving property valuation accuracy and efficiency, with implications for other professions involved, e.g. audit. The author starts by investigating traditional valuation methods' limitations, such as data constraints and subjectivity, and presents how these AI techniques, which are translated in property valuation field as automated valuation methods, tackle these challenges. Regression Models quantify attributes, Decision Trees provide clear insights, Random Forests improve predictions, Artificial Neural Networks design elaborate relationships, and XGBoost furnishes advanced boosting techniques for higher performance. Underscoring that AI is meant to support, not substitute, human assessors, the paper presents how these methods can enhance valuation processes, deliver more reliable valuation reports, and decrease errors, while also exploring future innovations and evolving trends in artificial intelligence for real estate industry and related professions.

Key words: artificial intelligence; real estate valuation; audit, automated valuation techniques methods;

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