

Dynamics of Corporate Governance and Fair Value Accounting in REITs: A Machine Learning-Based Approach

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The study investigates the relationship between corporate governance mechanisms and fair value accounting (FVA), providing a thorough understanding of how governance frameworks affect the relevance of fair value data. It examines whether and how corporate governance, presence of women on the board of directors and financial experts in audit committees, firm size, and debt-equity ratio influence the value relevance of firms. Two machine learning techniques—decision tree regressor and random forest regressor—were used. A decision tree regressor is a top-down approach that presents the results in a flowchart following various nodes. Random forest regressor is an ensemble technique, which provides information about the most important variables that significantly impact dependent variables. Using a sample of 22 real estate investment trust (REIT) companies, it is found that corporate governance, debt-equity ratio, presence of women on the board of directors, and size of the firm significantly affect the value relevance of firms. And there is no significant effect of the number of board directors, presence of financial experts in audit committees, or fair value assets on the value relevance of firms. It opens up new research avenues and demonstrates how advanced analytics can improve the accuracy and predictive power of financial models using machine learning techniques.

Keywords: Corporate governance, Fair value estimates, Machine learning, Decision tree regressor, Random forest regressor

Introduction

Real estate has traditionally been regarded as one of the most reliable kinds of investment due to its physical and durable character. In the past, people made direct investments in land and buildings because they valued their tangible presence and comparatively consistent earnings. However, the structure and administration of real estate investments have grown more complex as financial markets have developed. With the introduction of real estate investment trusts

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