A High-Dimensional Approach to Predicting Audit Opinions

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This study develops a model for the prediction of audit reports. The research data comprises 57,881 firm-year observations for public companies listed on the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX), and the NASDAQ from 2000 to 2019. The dataset consists of a high dimension of predictor variables (105 variables), including accounting-based, ownership concentration, executive compensation, market price, analysts rating, macroeconomic, and audit-related variables. A commercial version of Gradient Boosting, called TreeNet®, is used to build the prediction model. The results indicate that the developed model demonstrates high performance in predicting going-concern reports with an accuracy rate of 97.5%.