

A Support Vector Machine Approach to Detect Financial Statement Fraud in South Africa: A First Look

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Abstract

Auditors face the difficult task of detecting companies that issue manipulated financial statements. In recent years, machine learning methods have provided a feasible solution to this task. This study develops support vector machine (SVM) models using published South African financial data. The input vectors are comprised of ratios derived from financial statements. The three SVM models are compared to the k -Nearest Neighbor (k NN) method and Logistic regression (LR). We compare the ability of two feature selection methods that provide an increase classification accuracy.