

Improving financial distress prediction via genetic programming decision tree-evidence from Taiwan

Wo-Chiang Lee *

Department of Banking and Finance

Tamkang University

151, Yin-Chuan Road, Tamsui Taipei County

Taiwan 25137, R.O.C.

Abstract

In this paper, we apply the classifiers like CART, C5.0, GP decision tree and compare with Logic model and ANN model for Taiwan listed electronic companies's bankruptcy prediction. Our empirical results reveal that the GP decision tree can outperform all the classifiers either in overall percentage of correct or k -fold cross validation test in out-sample. That is to say, GP decision tree model has the highest accuracy and lowest expected misclassification costs. It can provide an efficient alternative to discriminate financial distress problems in Taiwan.

Keywords and phrases : Financial distress model, decision tree, CART, C5.0, GP decision tree.