Abstract

Bankruptcy prediction by means of learning methods

Presented dissertation concerns supervised learning in bankruptcy prediction. The main goal is empirical comparative analysis of learning methods. In recent years, this kind of methods has gained high popularity in a number of applications where the problem of data classification is considered, including the task of bankruptcy prediction.

On the pages of the thesis learning methods with regard to the methods traditionally used to predict the bankruptcy of Polish companies (e.g. artificial neural networks, method based on logistic regression) are described. However main focus was put on methods which were not at all or were in limited scope used for bankruptcy prediction of Polish companies (Vapnik's method, potential functions, new algorithms for bayesian networks learning, ensemble methods), including variation of one of the variants of potential function rules proposed by the author. Classification of methods has been proposed.

Empirical studies were based on the companies listed on the Warsaw Stock Exchange and were carried out according to elaborated framework of comparative analysis. Additional result is a library of R functions developed for the purpose of empirical analysis.

Key words: bankruptcy prediction, supervised learning