

# Predicting bankruptcy using Support Vector Machines: an application of bank bankruptcy

Birsen Eygi Erdogan

*Marmara University, Turkey*

## Abstract

The purpose of this study is to apply Support Vector Machines (SVM), which is a recently introduced classification method based on statistical learning theory, to bankruptcy analysis.

Although the prediction of financial distress of companies is analyzed with several statistical and machine learning techniques, the bank classification and bankruptcy prediction still needs to be investigated due to lack of adequate practice in the field of banking.

In this study SVM is implemented for analyzing financial ratios. Data sets belonging to the Turkish commercial banks are used. This work shows that Support Vector Machine's are capable of extracting useful information from financial data and can be used as a part of an early warning system.

## Keywords

Bankruptcy prediction, Bank classification, Support Vector Machines.

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