Abstract

Due to the constant changes taking place in the economy and the market environment, enterprises are exposed to the possibility of losing financial liquidity, threatening the company's survival on the market. Crisis situations that may affect various spheres of business activity, in the event of failure to take corrective actions, may turn into a proper crisis, which in turn may lead to insolvency and ultimately bankruptcy of the enterprise. Therefore, there is a need to assess the chances of survival of enterprises, and a number of different entities are interested in the recipients of such information. The thesis is devoted to the problems of forecasting the risk of bankruptcy of enterprises using classification methods. The purpose of this dissertation is to build a bankruptcy risk forecasting model dedicated to companies in the construction industry, which is particularly exposed to the problem of bankruptcy.

The dissertation is theoretical and empirical and consists of four chapters. The first chapter is devoted to the theory of the life cycle of enterprises and crises in enterprises as well as insolvency and bankruptcy, with particular emphasis on the specificity of the construction industry and a quantitative analysis of the problem of bankruptcy in Poland. The second chapter presents methods of measuring financial liquidity, which is of particular importance for the financial condition of enterprises. Moreover, the process of building a business bankruptcy risk prediction model was discussed, and the results of literature research on business bankruptcy risk prediction models and the most frequently used economic and financial analysis indicators were presented. The third chapter is devoted to classification methods that are particularly applicable in the issues of bankruptcy forecasting. The following methods are presented: discriminant analysis, logistic regression, classification trees and artificial neural networks. The last chapter contains the results of works on author's models of forecasting the risk of bankruptcy of enterprises for the construction industry. The author's models, estimated with the use of various methods, were compared with other Polish universal models and the effectiveness of combining classifiers for the purposes of forecasting the risk of bankruptcy of enterprises was verified.