

ABSTRACT

Theme: “Development of software for evaluating the solvency of individuals using data mining techniques”.

Thesis explanatory note: 104 p., 37 fig., 14 tab., 4 appendices, 19 sources.

Actuality: extending of economy has affected for development of banks and consumer lending. At the same time, the number of bad loans issued to individuals increases. Therefore, the use and development of new improved methods of evaluating the creditworthiness of individuals in the loaning is necessary in modern crisis condition.

Purpose of work is to study existing methods of building forecasting models and the development of a decision support system to evaluate the creditworthiness of individuals based on the method of the linear probability model.

The object of research is a set of statistical data on consumer loans granted to individuals by financial institution.

Methods of research: method of the linear probability model, least squares method with frame, matrices operations.

Software implementation was developed using the programming language C # in the development environment Microsoft Visual Studio 2012. For comparison of obtained results was a performed forecasting using method of decision trees and logistic regression in SAS Enterprise Miner system.

The results: Developed decision support system that predicts the creditworthiness of individuals based on linear probability model. Proposed the method of encoding categorical data in numeric. Implemented proposed modified algorithm method of least squares with frame.

SOLVENCY, CREDIT SCORING, LINEAR PROBABILITY MODEL, REGRESSION, ORDINARY LEAST SQUARES, ORDINARY LEAST SQUARES WITH FRAME, COMMON ACCURACY OF THE MODEL, INDEX GINI, ROC-CURVE