

ABSTRACT

Bachelor thesis: 127 p., 46 fig., 10 tabl., 5 appendixes, 45 sources.

FRAUD, CREDIT CARD, DATA MINING, NEURAL NETWORK, DECISION TREE, SAS.

Object of research – methods of detecting fraud with credit cards.

Subject of research – models of data analysis for fraud detection with credit cards.

Purpose of research – to build and compare fraud detection models with credit cards.

Urgency of research is due to the fact that credit cards play a very important role in the modern economy. The use of credit cards provides huge benefits in many areas of people's activities. However, at the same time, the volumes of fraudulent transactions with bankcards are increasing, which cause big losses. Therefore, the problem of identifying fraud with credit cards is a very urgent issue.

Research methods - artificial neural networks, decision trees.

The paper provides an overview of the market of bankcards, types of fraud with bankcards, and examples of fraud with payment cards in Ukraine. The difficulties and current state of fraud detection techniques using credit cards are described. Approaches are analyzed that can distinguish cases of fraud from legitimate transactions. The characteristics of such methods of data mining as artificial neural network, artificial immune system, genetic algorithm, Bayesian networks and decision trees are provided.

Results – the models of detection of credit card fraud based on decision trees and neural networks were constructed and analyzed.