An Intelligent Anti-Money Laundering Method for Detecting Risky Users in the Banking Systems

Volume 97 - Number 22

Year of Publication: 2014

Authors:
Neda Heidarinia
Ali Harounabadi
Mehdi Sadeghzadeh

10.5120/17141-7780

Abstract

During the last decades, universal economy has experienced money laundering and its destructive impact on the economy of the countries. Money laundering is the process of converting or transferring an asset in order to conceal its illegal source or assist someone that is involved in such crimes. Criminals generally attempt to clean the sources of the funds obtained by crime, using the banking system. Due to the large amount of information in the banks, detecting such behaviors is not feasible without anti-money laundering systems. Money laundering detection is one of the areas, where data mining tools can be useful and effective. In this research, some of the features of the users are extracted from their profiles by studying them. These features may include large financial transactions in risky areas regarding money laundering, reactivation of dormant accounts with considerable amounts, etc. Network training is performed by designing a fuzzy system, developing an adaptive neuro-fuzzy inference system and adding feature vectors of the users to it. The network output can determine the riskiness of the user behavior. The evaluation results reveal that the proposed method increases the accuracy of detecting risky users.
An Intelligent Anti-Money Laundering Method for Detecting Risky Users in the Banking Systems

References


Index Terms

Computer Science
Information Sciences

Keywords

Money laundering  Neuro-Fuzzy  ANFIS