ABSTRACT

Project contains 75 p., 25 fig., 13 tables, 3 appendices and 40 references.

Purpose – to develop an automated system to identify customer satisfaction with the bank and for improvement banking service quality.

In scope of the project, existing methods and approaches of identification customer satisfaction were reviewed and analyzed to solve a given problem. Methods of machine learning have been selected as a mathematical method for identification customer satisfaction such support vector machines, AdaBoost algorithm, random forest algorithm and k-nearest neighbors algorithm. The methodology for identification banking service quality has been proposed.

The algorithms of machine learning are implemented using Python programming language. The test of the developed system was performed using clients data within Santander Private Banking International company.

Key words: machine learning, customer satisfaction, automated system, support vector machines, AdaBoost algorithm, random forest algorithm, k-nearest neighbors algorithm.