

ABSTRACT

Master's Thesis: 83 pp., 22 figures, 22 tables, 1 Appendix, 16 sources.

Topicality. Validation of the ID you enter is widely implemented in the digital environment. Automatic banking is particularly important in banking, where it is related to billing and other transactions.

The urgency of the topic is due to the fact that according to the resolution of the Board of the National Bank of Ukraine of December 28, 2018 № 162, all banks of Ukraine should switch to the International Bank Account Number (IBAN), however, there appear to be errors in the transfer, which find secure electronic payment systems and it is necessary to automate the translation process to avoid errors in accordance with standards. That is, one way to solve the problem is to re-engineer automated banking systems that would have a IBAN recalculation and verification module.

The paper proposes an algorithm for automatic calculation and verification of IBAN, which can be implemented as a separate module of the automated banking system, which could be used in Ukraine by both small banks and those working with an expanded set of automated banking system modules.

Design and development of software for module implementation were performed and a demo example was created.

Relationship with working with scientific programs, plans, topics. The work was performed at the Department of Automated Information Processing and Management Systems of the National Technical University of Ukraine 'Kyiv Polytechnic Institute. Igor Sikorsky "within the topic" Reengineering of the Automated Banking System in Transition to an International Bank Account Number" (№ DR 0117U000925).

The purpose of the study is to: keep accelerated, fully automatic payment of international payments to the client's account, reduce the number of erroneous charges and related investigations, reduce the cost of international payments processing operations for banks and, as a consequence, the cost of payments to

customers - by using the developed module automatic calculation and checking of IBAN for the automated banking system.

To achieve this goal, you must complete the following tasks:

- analysis of existing business processes of forming bank accounts;
- to develop an algorithm for automation of IBAN calculation;
- to develop design and software solutions for the module of automatic recalculation and verification of IBAN within the automated banking system.

The object of study is the business processes of forming a bank account.

The subject of the study is methods and models of forming a bank account and checking for compliance with the standard.

The research methods used in this paper are based on the methods of control sign systems.

The scientific novelty of the obtained results is to create a functional module for simplifying and harmonizing the Ukrainian payment space with the European one.

Publications. The materials of the work are published in the articles of the scientific journal "Young Scientist", theses of the scientific-practical conference "Information Systems and Technologies of Management-2019" and theses of the international scientific Internet conference "Information Society: technological, economic and technical aspects of formation".

MODERNIZATION, AUTOMATED BANKING SYSTEM,
INTERNATIONAL BANK ACCOUNT NUMBER, SECURITY METHODS,
SYMBOL CHECKING SYSTEM, CLASSIFICATION