



PROSPECTS FOR DEVELOPING THE EFFECTIVENESS OF USING INFORMATION TECHNOLOGY CAPABILITIES IN INVESTIGATING ECONOMIC CRIMES

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Abstract: This article examines the prospects for increasing the effectiveness of using information technologies (IT) in investigating economic crimes. It analyzes the possibilities of optimizing investigative processes through the use of modern IT tools, including data analysis, artificial intelligence, and blockchain technologies. The advantages of these technologies, challenges in their practical application, and their role in detecting and eliminating economic crimes are also discussed. The article aims to identify promising directions for integrating IT into the activities of investigative bodies and provides suggestions for improving efficiency in this field.

Keywords: Economic crimes, information technology, investigation, data analysis, artificial intelligence, blockchain, efficiency, integration, criminal activity

Effective use of information technologies in the process of investigating economic crimes is one of the most crucial tasks for law enforcement agencies today. Modern digital technologies offer great opportunities for rapid crime detection, identification of financial fraud schemes, and combating illegal money circulation. However, to organize this process more effectively and fully utilize the capabilities of information technologies, it is necessary to implement specific strategies.

To address the aforementioned issues in the preliminary investigation process, ensure the principles of legality and inevitability of responsibility as stipulated in the Criminal Code, and resolve existing challenges, the following measures are proposed:

Firstly, it would be expedient to amend Part 2 of Article 329 of the Criminal Procedure Code of the Republic of Uzbekistan to include a provision allowing investigators or inquiry officers, with the prosecutor's consent, to obtain information constituting bank secrecy during pre-investigation checks. This would apply to cases involving fraud and theft related to the misappropriation of funds from plastic cards, as well as other crimes directly linked to bank accounts, based on reports received through information systems, including information technologies.

Secondly, in cases where an individual reports the misappropriation of their funds and supporting evidence is available, it is proposed to introduce an automated system for obtaining information constituting bank secrecy. This system would be integrated into the unified information system "Electronic Inquiry and Preliminary Investigation," implemented in collaboration with the Central Bank, commercial banks, and the National Processing Center. The goal is to ensure that investigators and inquiry officers can promptly access information on the movement of misappropriated funds during pre-investigation actions.

It is noteworthy that this practice exists in the U.S. financial investigation system. According to the U.S. Bank Secrecy Act (Section 3142), obtaining bank secrecy information

requires a prosecutor's sanction, except for suspicious transactions, which do not require such authorization. All these processes are conducted through an electronic information exchange system[1].

Thirdly, in the investigative practices of developed countries, such as the Russian Federation, the United States, and others, polygraph examinations are used during criminal investigations to assess the psychophysiological characteristics of witnesses, suspects, or accused individuals. While this practice is currently employed in Uzbekistan to some extent, there is no legal basis for using polygraph results as evidence in inquiry and preliminary investigation processes.

However, the Presidential Decree of the Republic of Uzbekistan No. PF-6256, dated July 5, 2021, "On Measures to Improve the Judicial-Expertise System in the Republic of Uzbekistan," mandates law enforcement agencies and relevant organizations to introduce new types of expertise into practice, drawing on the experiences of developed countries.

Therefore, it is deemed appropriate to introduce an amendment to Part 2 of Article 81 of the Criminal Procedure Code of the Republic of Uzbekistan, stipulating that the results of a polygraph examination, i.e., the examination of a person's psychophysiological characteristics, can be evaluated as evidence in the form of an expert opinion.

Fourthly, in line with the FATF recommendations, and to enhance the effectiveness of pre-investigation checks, inquiries, and preliminary investigations, as well as to leverage the capabilities of digital technologies in evidence collection, it is necessary to grant authorized law enforcement and investigative bodies the ability to utilize information available on global open internet networks (OSINT). Additionally, measures should be taken to establish disciplinary liability for the use of such information.

Fifthly, today, computer technologies, particularly the capabilities of artificial intelligence, are being integrated into all spheres of social life. Therefore, utilizing artificial intelligence in the following stages of preliminary investigations and inquiries can reduce the workload of criminal cases and save time:

- During pre-investigation actions, obtaining written explanations from persons involved in the case, interrogating suspects, accused persons, defendants, witnesses, and victims in connection with initiated criminal cases, and/or conducting confrontations. Recording the statements provided by individuals during these investigative actions in audio or video format, using artificial intelligence to generate written explanations and protocols, and formalizing the process by attaching the recorded audio or video to the protocol.

This practice is currently implemented in the investigative processes of developed countries, particularly in Qatar. It helps prevent individuals from denying or retracting their statements given during interrogations or confrontations at the conclusion of investigations or trials. It also prevents falsification of evidence by inquiry or investigative officers, ultimately contributing to upholding the principles of legality and truth-finding.

The use of artificial intelligence in drafting indictments based on statements obtained during preliminary investigative actions, other protocols, and collected evidence can facilitate the preparation and approval of indictments for completed criminal cases in a shorter timeframe. This also allows for their submission to the supervising prosecutor for referral to the relevant court, ultimately helping to prevent violations of individuals' rights and interests.

Sixthly, expanding the use of artificial intelligence and machine learning technologies in investigating economic crimes is of significant importance. Currently, the development of

systems for detecting suspicious financial transactions through big data analysis is creating new opportunities in combating economic crimes. These technologies enable the monitoring of illegal transactions in banking systems, analysis of electronic documents and financial reports, and automated detection of fraud schemes.

Seventhly, improving digital forensic analysis methods is one of the critical tasks. Today, technologies specialized in collecting electronic evidence, ensuring its authenticity, and recovering digital traces are advancing. Since most economic crimes are committed through electronic documents, banking operations, and cryptocurrency platforms, there is a need to strengthen the handling of digital evidence. To this end, it is necessary to enhance capabilities for analyzing electronic evidence, identifying its sources, and using it as legally admissible evidence in judicial and investigative processes through specialized software and algorithms.

Eighthly, combating economic crimes requires strengthening cybersecurity and developing effective strategies to protect electronic documents. As cases of unauthorized access to information systems, document forgery, and deletion of digital evidence by criminals are increasing, it is essential to introduce new technologies to ensure information security. This necessitates enhancing cooperation in information security among government institutions, financial organizations, and the private sector, as well as developing modern methods to protect electronic documents.

Ninthly, expanding international cooperation in combating economic crimes is of great importance. Today, transnational economic crimes are on the rise, with criminals conducting illegal financial operations using banking systems across different countries. Therefore, it is necessary to strengthen cooperation with international financial monitoring organizations such as the Financial Action Task Force (FATF), Interpol, Europol, and the Egmont Group, improve mechanisms for exchanging electronic evidence, and leverage international experiences in detecting economic crimes.

Tenthly, the widespread use of blockchain technology in investigating economic crimes enhances efficiency. Transactions conducted via blockchain are transparent, making it easier to analyze them and detect illegal financial activities. Additionally, specialized analytical tools and algorithms, such as platforms like Chainalysis, Elliptic, and CipherTrace, which are highly effective in tracking cryptocurrency transactions and identifying illicit fund movements, should be utilized to detect and prevent crimes related to cryptocurrencies.

Eleventhly, reducing human involvement and broadly utilizing automated systems in investigating economic crimes is essential. Currently, bureaucratic obstacles and the paper-based formalization of documents in judicial and investigative processes limit the ability to promptly uncover crimes. Therefore, implementing an electronic document circulation system, analyzing documents through electronic databases, and creating an automated database are of significant importance in combating economic crimes.

Twelfthly, it is necessary to train specialists in digital analysis and cybersecurity within law enforcement agencies and enhance their qualifications.

Given the increasing demand for specialists in digital analysis and financial crime detection, training personnel in this field and familiarizing law enforcement officers with new technologies are among the most critical tasks.

In conclusion, the prospects for effectively utilizing information technologies in investigating economic crimes are tied to the widespread adoption of modern digital analysis tools, the use of artificial intelligence and big data analysis, strengthening cybersecurity, and

fostering international cooperation. Additionally, improving the handling of digital evidence, implementing blockchain technologies, and enhancing the qualifications of law enforcement personnel can further increase the effectiveness of combating economic crimes. This, in turn, creates new opportunities for law enforcement agencies in the fight against crime and holds significant importance in preventing economic crimes in the future.

Enhancing the efficiency of using information technologies in investigating economic crimes can be achieved through strengthened cooperation among law enforcement agencies, financial institutions, international organizations, and the private sector, as well as the extensive use of modern digital tools. Currently, economic crimes often have a transnational nature, requiring new and innovative approaches to their investigation. Therefore, there are several key directions for advancing the prospects of expanding the use of information technologies, improving their efficiency, and integrating them into practice.

First and foremost, it is necessary to improve and develop intelligent analysis systems for investigating economic crimes. Traditional analysis methods are no longer sufficiently effective in identifying the increasingly complex schemes of crimes. Consequently, there is a need to create software based on intelligent algorithms and neural networks to analyze financial data and monitor criminal activities. Such systems enable the verification of the authenticity of financial transactions, the detection of discrepancies in various calculations, and the identification of suspicious operations.

Additionally, the widespread use of supervised analytics systems and machine learning technologies is of significant importance in investigating economic crimes. Machine learning algorithms enable the automated analysis of suspicious financial transactions and the determination of risk levels. For instance, large-scale fund transfers conducted within banking systems can be scrutinized using artificial intelligence to identify suspicious transactions. This reduces human involvement in the investigative process and allows for focused attention on high-risk operations.

Another critical direction is enhancing opportunities for active collaboration with the public in detecting and investigating economic crimes. For example, countries such as the United States, Canada, and the European Union have mechanisms in place for the public to report information about illegal activities by criminals. Creating opportunities for the public to provide information to law enforcement agencies through social networks, digital platforms, and internet-based information systems can significantly enhance the prevention of economic crimes.

Training specialists in digital technologies within law enforcement agencies and improving their qualifications are also among the priority directions. Currently, there is a need to establish specialized training programs, professional development courses, and mechanisms for experience sharing to detect financial fraud, cyberattacks, and crimes in the digital environment. In this process, investigators should be equipped with skills in areas such as big data analytics, monitoring blockchain technologies, combating cyberattacks, and handling digital evidence.

Expanding the use of blockchain technologies is another key prospect for advancing the fight against economic crimes. By enabling transparent tracking of financial transactions conducted via blockchain and analyzing suspicious transactions, the effectiveness of combating illicit financial flows can be enhanced. Additionally, it is necessary to improve mechanisms for monitoring cryptocurrency trading and electronic wallets used for illegal

activities. This process should involve the implementation of specialized algorithms and automated monitoring tools for blockchain analysis.

The next critical direction is improving systems for detecting and analyzing illegal activities on the internet in the fight against economic crimes. Today, criminals are developing illegal business schemes online, using methods such as money laundering through cryptocurrencies, establishing fake financial organizations, and misappropriating users' funds through online fraud. Therefore, it is necessary to develop and implement artificial intelligence, machine learning, and automated analysis systems to identify and combat illegal online activities.

Furthermore, strengthening international cooperation is required in investigating economic crimes. As criminals can conduct illegal operations using banking systems in various countries, it is essential to enhance international legal cooperation mechanisms. This process involves improving the mechanisms for international financial monitoring agencies, mutual information exchange systems among banks, and interstate cooperation in investigative processes.

In conclusion, there are several key directions for enhancing the efficiency of using information technologies in investigating economic crimes. The widespread application of artificial intelligence and big data analysis, the improvement of digital forensic methods, the enhancement of law enforcement personnel qualifications, the strengthening of international cooperation, and the development of methods for detecting illegal online activities are among the critical factors in combating economic crimes. Implementing these measures will further expand opportunities for the rapid and effective investigation of economic crimes, thereby increasing the operational efficiency of law enforcement agencies.

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1. Materials from the training seminar on "Investigation Practices of Economic and Financial Crimes in the U.S.," organized in collaboration with the "Regional Dialogue" organization at the Law Enforcement Academy on November 11, 2024.

