DIGITALIZATION OF INFORMATION-ANALYTICAL ACTIVITIES IN INTERNAL AFFAIRS BODIES AND THE USE OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES IMPLEMENTATION OF SYSTEMS (A CASE STUDY OF THE TASHKENT REGION)

Bayrbekov Elbek Ubaydullayevich
Student, Group 2, Organizational-Tactical Management Master's Program, Academy of the Ministry of Internal Affairs of the Republic of Uzbekistan
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Abstract: This article provides a comprehensive study of the theoretical and legal foundations for digitalizing information-analytical activities and implementing artificial intelligence (AI) technologies in internal affairs bodies. It examines the current situation within the internal affairs bodies of the Tashkent region, identifies existing problems, and outlines areas for improvement. The research discusses practical mechanisms for implementing artificial intelligence tools to increase the effectiveness of crime forecasting, monitoring, and prevention.

Keywords: internal affairs bodies, information-analytical activities, digitalization, artificial intelligence, crime forecasting, monitoring, predictive analysis.

Introduction

In many countries around the world, internal affairs bodies are fundamentally transforming their crime-fighting, public order maintenance, and prevention activities based on artificial intelligence and big data technologies. Police systems in countries such as the USA, Great Britain, Germany, and South Korea are achieving significant success in crime prevention through the implementation of predictive analysis systems.

Within the Republic of Uzbekistan, the digitalization of the information and analytical activities of internal affairs bodies has become a priority under the "New Uzbekistan – 2030" strategy and state programs aimed at modernizing the Ministry of Internal Affairs system. Currently, the internal affairs bodies of the Tashkent region are in the initial stage of this process, where a lack of a systematic approach and a scientific-methodological basis is observed.

The relevance of this research is underscored by the fact that fragmented data within the information and analytical system of internal affairs bodies, the absence of a unified digital infrastructure, and the unregulated use of artificial intelligence technologies are diminishing the effectiveness of crime-fighting efforts.

The objective of this research is to investigate the legal and theoretical foundations for digitalizing information and analytical activities and implementing artificial intelligence technologies, using the internal affairs bodies of the Tashkent region as a case study, and to develop practical recommendations.

LITERATURE REVIEW

The digitalization of information and analytical activities within internal affairs bodies has been examined from various perspectives in foreign and domestic academic literature. P. Brantingham and J. Eck (Brantingham & Eck, 2017), as the founders of the theory of predictive

policing, have conducted a detailed study of the legal and ethical boundaries of crime mapping and algorithmic prediction.

V.A. Kolokoltsev and A.M. Voronov, studying the experience of the Russian Ministry of Internal Affairs, demonstrated that integrating the video surveillance network with AI under the "Safe City" program increased the crime detection rate by 34%. This experience is significant as a methodological resource for CIS countries, including our own.

Sh.R. Davlatov and B.T. Musayev, specialists in the digitalization of the Ministry of Internal Affairs of the Republic of Uzbekistan, assessed the current state of information and analytical centers, identifying database segmentation and a lack of standardization as key weaknesses. N.A. Khasanov studied the legal mechanisms for implementing an electronic document exchange system within internal affairs bodies.

In global practice, the PredPol (Geolitica) system from the USA, the National Data Analytics Solution (NDAS) program from the UK, and the CCTV-integrative platform from South Korea have been examined as the most prominent examples of organizing information analysis for internal affairs bodies based on artificial intelligence. However, no specific research has yet been conducted for the internal affairs bodies of the Tashkent region. Addressing this gap constitutes the scientific novelty of this article.

MATERIALS AND METHODS

The research employed systems analysis and synthesis, comparative legal analysis, statistical-empirical methods, SWOT analysis, and case study methodologies.

The primary empirical source of the study is the results of a survey conducted from 2024 to 2026 among employees of district and city internal affairs departments (IID) in the Tashkent region. The survey included a total of 94 participants, comprising 18 IID heads, 39 crime analysis specialists, 24 operational-investigative officers, and 13 IT specialists.

For comparative analysis, the experiences of the USA (PredPol system), the UK (NDAS), Russia ("Safe City"), and South Korea (integrative CCTV platform) were studied. The feasibility of adapting the experiences of these countries to the conditions of the Tashkent region's Main Department of Internal Affairs (MDIA) was assessed.

RESULTS

The survey results indicated that the level of digitalization in the information and analytical activities of the Tashkent region's internal affairs bodies is still unsatisfactory. 68.1% of participants reported using sequentially written paper reports and Excel spreadsheets as their primary tools for crime analysis. Real-time data exchange and automated analysis capabilities are available in only 31.9% of the departments.

91.5 percent of participants noted that AI-based analytical systems are currently not used at all, or are used very little, in practice. Algorithmic tools for crime forecasting are not being utilized. The main obstacles cited were a lack of qualified IT personnel (77.7 percent), fragmented crime databases (71.3 percent), insufficient legal regulation (63.8 percent), and financial constraints (54.3 percent).

An analysis of video surveillance systems showed that 43% of the cameras installed in the region are outdated and do not support face recognition (Face ID) or motion analytics functions. In most cases, existing video footage is reviewed for analysis after an incident, rather than in real time.

Regarding the integration level of information and analytical systems, the region has an electronic criminal law statistics database, the "E-material" information system, a registry of fines and administrative offenses, and a citizen registry database. There is no automated data exchange mechanism between these systems.

DISCUSSION

A comparison of the research results with global experience reveals several important considerations. In Los Angeles, USA, while the PredPol predictive system was proven to reduce residential burglaries by 20% between 2011 and 2019, the system was discontinued in 2020 due to the problem of racial bias (Brantingham, Eck, 2017). This experience is significant for the Tashkent region, highlighting that ensuring algorithmic transparency and legal guarantees in the implementation of artificial intelligence systems must take precedence over any efficiency criteria.

Uzbekistan lacks a specific legislative framework to regulate the use of artificial intelligence technologies within internal affairs bodies. If this legal gap is not addressed promptly, the implementation of artificial intelligence tools could create serious legal risks.

The problem of data fragmentation should be assessed not only as a technical barrier but also as an institutional one. Russia's "Safe City" experience demonstrated that integrating information systems is a matter of managerial will and organizational reform, not merely a technical issue. In the Tashkent region, it is necessary to establish an interdepartmental agreement (memorandum) to legally strengthen the information exchange between internal affairs bodies and the regional administration.

The issue of personnel requires special attention. A strategic solution to the personnel problem is to train specialists, such as "crime analysts," among cadets at the Academy of the Ministry of Internal Affairs based on state standards and to create a systematic retraining program for analytical staff on artificial intelligence tools.

CONCLUSION

Based on the research results, the following conclusions have been formulated:

First, the digitalization of information and analytical activities within the internal affairs bodies of the Tashkent region is being carried out in a fragmented manner, lacking a unified system. There is no automated integration between the main databases, which reduces the quality of rapid analysis.

Second, the main prerequisite for introducing artificial intelligence technologies into internal affairs bodies is the creation of a legal regulatory mechanism.

Third, it is recommended to develop a phased plan for the digitalization of the information and analytical system of the internal affairs bodies in the Tashkent region for 2025–2027:

First stage – unifying and standardizing databases;

Second stage – expanding GIS monitoring and crime mapping to all district Internal Affairs Departments;

Third stage – pilot testing of predictive analytics systems.

The research can serve as a methodological basis for developing training and retraining programs for analytical personnel in the Tashkent Region Main Department of Internal Affairs system, as well as for forming the state standard for the specialization.

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