

DOI: <https://doi.org/10.57125/FEL.2024.12.25.17>

**How to cite:** Ibrahimli, N. G. (2024). Analysis of Modern Investigate Techniques for Combating Drug Trafficking Network in Azerbaijan. *Futurity Economics&Law*, 4(4). 295-310. <https://doi.org/10.57125/FEL.2024.12.25.17>

## **Analysis of Modern Investigate Techniques for Combating Drug Trafficking Network in Azerbaijan**

**Namig Gubad Ibrahimli**

Dissertator of the Center of Forensic Examination of the Ministry of Justice of the Republic of Azerbaijan, <https://orcid.org/0009-0005-7110-5445>

**\*Corresponding author:** [azlow77@gmail.com](mailto:azlow77@gmail.com).

**Received:** September 11, 2024 | **Accepted:** November 24, 2024 | **Available online:** December 8, 2024

**Abstract:** The study addresses the pressing issue of combating drug trafficking in Azerbaijan, which is of particular importance due to the country's strategic location along major international smuggling routes. The research aimed to analyse contemporary methods and challenges in counteracting drug trafficking and to identify strategies for enhancing the effectiveness of national and global efforts. The research employed a combined methodological approach, including structured surveys, document analysis, and case studies of high-profile operations such as "Caspian", "Silk Road", and "Baku-Tehran". The key findings included identifying the most effective methods, notably digital surveillance, undercover operations, controlled deliveries, and forensic analysis. It was revealed that the primary challenges remain inadequate legislation, limited technical capacity, and insufficient international coordination. The practical significance of the study lies in the formulation of recommendations for improving anti-drug trafficking strategies, which include the implementation of advanced technologies, modernisation of legal frameworks, and enhancement of international cooperation. The results may prove helpful in Azerbaijani law enforcement agencies and can be adapted for other countries facing similar challenges.

**Keywords:** drug trafficking, law enforcement agencies, new technologies, international cooperation, law enforcement agencies.

## **Introduction**

Combating drug trafficking networks in Azerbaijan is an essential component of national security and public health. The fight against drug trafficking networks in Azerbaijan is a critical aspect of ensuring national security and public health. The country's geographical location positions it as a key transit hub in global drug trafficking routes, creating numerous challenges for law enforcement agencies. In this context, modern investigative methods, such as digital technologies, big data analysis, and international cooperation, play a decisive role in detecting and neutralising criminal networks. Analysing these methods enables assessing their effectiveness and identifying areas for further improvement to create a safer environment and strengthen the rule of law.

Numerous researchers have explored contemporary investigative methods to combat drug trafficking networks in Azerbaijan. For example, Frank et al. (2021) examined the issues faced by young people with a history of drug use who are in contact with the criminal justice system. They focused on understanding these individuals' challenges and explored possible solutions through policy and practice approaches. Similarly, Hawken (2023) studied the regulatory history of drug control, mainly through the activities of the United Nations, highlighting how international drug policies and practices have evolved and their implications for global drug governance. Golichenko (2020) investigated human rights violations associated with archaic drug policies in Eastern Europe and Central Asia, emphasising that documenting human rights abuses alone is insufficient for reforming these policies. Kitachayev (2019) explored societal and state attitudes towards drug addiction in Azerbaijan, underlining how this issue is often neglected within the country's social policy framework. Klein and Stothard (2018) analysed the breakdown of the global order concerning drugs, focusing on developments from the 2016 UN drug conference to its 2019 review, examining shifts in global drug policy and their impact on international relations and anti-drug strategies.

### ***Research Problem***

The analysis of contemporary investigative methods for combating drug trafficking networks in Azerbaijan is an exceptionally pressing issue that requires immediate attention due to the growing complexity and technological advancement of such criminal structures. Azerbaijan's geographical position as a transit zone between drug-producing countries and significant markets adds significance to this problem. Addressing this issue is essential to mitigate the social, economic, and security risks caused by drug trafficking, such as rising crime rates, deteriorating public health, and societal destabilisation.

The findings of this research enable society to adopt effective strategies for detecting and neutralising drug networks, thereby contributing to enhanced security levels. For law enforcement agencies, the conclusions provide a foundation for improving the utilisation of modern technologies and methodologies, such as data analysis, artificial intelligence, and international cooperation. Despite the availability of global studies on drug trafficking, this topic remains underexplored at the local level, opening opportunities for new scientific discoveries and practical advancements.

### ***Research Focus***

The study focuses on analysing contemporary investigative methods to combat drug trafficking networks in Azerbaijan, primarily examining and evaluating innovative approaches capable of effectively counteracting complex criminal operations. Emphasis is placed on integrating advanced technologies, such as data analysis and artificial intelligence, into law enforcement practices while considering the geopolitical and socio-cultural specificities of the region. The authors aim to highlight a scientific approach to developing a multi-vector strategy encompassing enhanced regional cooperation, improved legislative frameworks, and implementing adaptive measures to address the evolving challenges of modern drug trafficking.

## **Research Aim and Research Questions**

The research aims to identify contemporary investigative methods for combating drug trafficking networks in Azerbaijan, drawing on international experience and modern technologies.

The research objectives include:

1. To analyse existing investigative methods applied in combating drug trafficking.
2. To identify key problems and shortcomings in their implementation.
3. To develop recommendations for improving the effectiveness of anti-drug trafficking efforts, mainly through the implementation of advanced technologies.

## **Literature Review**

Over the past five years, researchers have focused on analysing various aspects of combating drug trafficking, particularly in Azerbaijan, by examining modern investigative methods and their effectiveness. They actively explore the impact of new technologies on drug enforcement, including using the internet for drug trade and applying advanced analytical tools to track and dismantle online networks. Furthermore, scholars emphasise enhancing international cooperation between various state and law enforcement agencies to combat transnational drug trafficking networks effectively. Special attention is given to the legal framework and legislative initiatives that contribute to the effectiveness of investigations.

Specifically, Koram (2019) investigates the global context of the war on drugs, particularly within racial and global social divides, highlighting the impact of such policies on global inequality and the existence of the “colour line” in drug enforcement. The author analyses how international drug policies intersect with issues of racial and social inequality, as well as their implications for both global and local communities. Loveth et al. (2022) examine the effectiveness of mass media in combating drug addiction among higher education students in Imo, Nigeria. This study demonstrates how media-based awareness influences the perception of drug issues among students and their readiness to change behaviour.

In the findings of Machethe and Mofokeng (2022), the impact of illicit drug networks on the effectiveness of law enforcement agencies in South Africa is examined. They analyse how drug traffickers can undermine police operations and other law enforcement bodies, as well as assess the role of corruption and social networks in drug enforcement. Additionally, Md Onzer et al. (2022) explore the history and methods of combating drug smuggling on Langkawi Island, particularly about the “Golden Triangle”. This study investigates the challenges of the geographical and social conditions facilitating drug smuggling in this region.

In his research, Mostyn (2024) analyses drug trafficking as a crime against humanity, focusing on global moral panics and the UN's drug policies. The study examines the ethical, legal, and social dimensions of drug enforcement within international policy and global control strategies. Oksanen et al. (2020), in particular, study the impact of social media on youth access to drugs via the Internet. They conducted a national study in the United States and Spain among adolescents and young adults, evaluating how social media facilitates or hinders drug dissemination among this population group. Ovcharenko et al. (2020) explore the use of the Internet in illicit drug trade through profiling and data analysis methods. They consider how the internet serves as a tool for illegal transactions and analyse the effectiveness of profiling as a method to combat drug trafficking.

Ritter (2021) examines drug policy from multiple perspectives, focusing on its evolution, effectiveness, and the challenges arising during its implementation. The research concentrates on various global approaches to formulating drug policies and the practical issues countries face during their execution. Striltsiv and Bukovsky (2021) focus on improving the regulatory framework governing the activities of the National Police of Ukraine in combating drug trafficking, proposing ways to enhance

the effectiveness of law enforcement agencies. Sultan (2021) analysed the accessibility of services for drug-dependent individuals in Azerbaijan during the COVID-19 pandemic, identifying key challenges in the context of social support. In subsequent work, Sultan (2023) examined the fight against drug trafficking networks in Azerbaijan, studying the historical development of political and market factors that shaped local drug policies. Sultan (2022) explored youth well-being in the context of Azerbaijan's national drug policy, highlighting its social and political dimensions.

Syroid (2024) examined European Union mechanisms for combating drug trafficking, emphasising their importance in safeguarding public health as part of a unified counteraction strategy. UNODC (2021) highlighted methods to fight drug-traffic cybercrime, focusing on open-source investigations in Central America and the Dominican Republic. Volobuieva et al. (2023) analysed the criminal and administrative legal features of combating illicit drug trafficking in Ukraine, outlining the key challenges in countering such crimes. Wall and Bewley-Taylor (2021) presented the global drug policy index methodology, which enables the evaluation of the effectiveness of drug control strategies at an international level.

Yashasvi (2020) investigated the link between illicit drug trafficking and terrorism financing, underscoring the global security risks involved. Yukhno et al. (2019) examined the specifics of investigating drug-related crimes using modern technologies that allow for effective monitoring and dismantling of criminal networks. Zigon (2019) analysed drug policy as a tool for influencing communities, focusing on the ethics and legal protection of individuals involved in the drug trade system. These studies address the drug issue from various perspectives, ranging from global policies to local practices and the use of new technologies in drug enforcement. At the same time, they underscore the relevance of combating drugs at multiple levels—from global strategies to local initiatives—indicating the necessity for a comprehensive approach to addressing this problem.

## **Materials and Methods**

The study conducted an in-depth analysis of contemporary methods for combating drug trafficking based on a review of key cases from the practice of Azerbaijan's law enforcement agencies. Specifically, cases such as Operation "Caspian," which uncovered large-scale heroin smuggling via the Caspian Sea; the "Transnational Silk Road Route" case, involving the transportation of drugs from Afghanistan to Europe; and Operation "Baku-Tehran," associated with the transit of synthetic medicines, were examined. Four primary methodologies were employed to evaluate the effectiveness of combating these crimes: digital surveillance, undercover operations, controlled deliveries, and forensic analysis of narcotic substances.

Each of these methods was assessed for effectiveness in combating international drug cartels. In particular, digital surveillance facilitated the tracking of criminals' encrypted communication channels, and undercover operations provided access to the internal structures of networks. At the same time, controlled deliveries enabled the identification of key figures within trafficking chains. Forensic analysis, in turn, helped establish the sources of drug production. These methods were also compared with approaches used in Turkey, Georgia, and Russia based on criteria such as response efficiency, the level of international cooperation, the effectiveness of dismantling criminal networks, and the ability to confiscate associated financial assets.

Based on this analysis, recommendations were formulated to strengthen efforts against drug trafficking. Specifically, it was proposed to introduce advanced technologies for digital evidence analysis, enhance international cooperation through joint operations, and implement training programmes for law enforcement officers in modern investigative techniques. These recommendations not only improve the efficiency of combating drug trafficking in Azerbaijan but also serve as a valuable framework for adaptation in other countries facing similar challenges.

## Sample and Participants

Sample selection is a critical stage in any scientific study, as the accuracy and reliability of the results depend on their appropriateness. Sampling involves selecting a subset of individuals or objects from a larger population (general population) to represent and study. The primary goal of this process is to ensure the representativeness of the selected sample, which allows conclusions to be drawn about the entire population based on data collected from only a portion of its members.

This study employed a stratified sampling method to ensure a balanced representation of different respondent groups. The general population comprised law enforcement officers, forensic experts, and representatives of analytical centres studying the issue of drug trafficking in Azerbaijan. The total number of participants was 120, of whom 50% were law enforcement personnel, 30% were forensic experts, and 20% were analysts. The age range of respondents varied from 25 to 55 years, enabling the inclusion of both young specialists and experienced professionals.

Selection criteria included professional experience in combating drug trafficking, involvement in international investigations, and willingness to share practical knowledge and recommendations. This approach ensured the comprehensiveness and depth of the analysis, allowing consideration of various aspects of the problem and providing balanced results that could inform effective anti-drug trafficking strategies. Participants were surveyed using a questionnaire, which included the following questions:

1. Which methods of combating drug trafficking do you consider most effective?
2. What are the main challenges you face when dealing with international drug traffickers?
3. Which evidence collection and analysis methods do you consider most effective in combating drug trafficking?
4. What experience do you have in international investigations of drug trafficking?
5. What are the main factors contributing to success or failure in combating drug trafficking in Azerbaijan?
6. How do you evaluate the role of international cooperation in combating drug trafficking?
7. Which innovative technologies could help combat drug trafficking?
8. How do you assess the effectiveness of strategies for preventing drug trafficking in Azerbaijan?
9. What legislative changes do you think are necessary to improve anti-drug trafficking efforts in Azerbaijan?
10. How do you assess the role of public involvement in combating drug trafficking in the country?

## Instruments and Procedures

The study utilised various tools and methods for data collection to ensure a comprehensive analysis of the problem and the reliability of the results. The primary techniques included surveys and document analysis, supplemented by observation elements. Surveys were conducted using standardised questionnaires containing both closed and open-ended questions, facilitating the collection of quantitative and qualitative data. The questionnaires targeted the experiences of law enforcement officers, analysts, and experts in combating drug trafficking. Semi-structured interviews were conducted with key professionals who participated in investigations related to drug trafficking. This approach enabled the collection of in-depth insights into their working methods, primary challenges, and best practices.

In addition, document analysis was performed, including reports from law enforcement agencies, court materials, and international reviews on combating drug trafficking. This method provided a

broader understanding of the problem's context and identified trends that impact the effectiveness of investigations.

Observations of cooperation models between various law enforcement structures were carried out to validate the data further. All collected data were systematically organised and analysed using software for qualitative and quantitative analysis, ensuring objectivity and reliability of the results.

### **Data Analysis**

Methods were employed to facilitate the effective processing and interpretation of the collected information for data analysis. Firstly, data from surveys and observations were processed using fundamental descriptive analysis. This approach included calculating the percentage distribution of responses, computing averages, and identifying general trends within the sample. A comparative assessment of the data was conducted using tables and graphs, revealing key differences between cases, particularly the investigative methodologies employed in Azerbaijan, Turkey, Georgia, and Russia.

All data were meticulously verified and systematised to ensure the reliability of the results. At the final stage of the analysis, a thematic grouping method was used, highlighting the key aspects of the collected information and summarising practical recommendations. This approach proved effective for structuring the material and formulating conclusions contributing to understanding modern methods for combating drug trafficking and their adaptation under varying conditions.

### **Results**

Modern technologies play a pivotal role in combating drug trafficking networks, particularly in Azerbaijan, where state agencies are actively integrating digital tools. Artificial intelligence (AI) enables law enforcement agencies to analyse vast datasets, including financial transactions, phone records, and suspect movements. AI facilitates the identification of suspicious patterns that may indicate drug trafficking activities. Systems for monitoring financial flows are also actively employed, allowing for the detection of illegal transfers and the movement of funds through offshore zones. Digital platforms for coordinating investigative actions also streamline communication between regional and international law enforcement agencies. These technologies significantly enhance the effectiveness of law enforcement operations, enabling faster and more accurate detection of drug trafficking networks.

Azerbaijan is actively involved in international cooperation, a key component in combating drug trafficking. Within the framework of UN programmes and collaboration with Interpol, the country participates in joint operations with neighbouring states, such as Iran, Turkey, and Russia (European Union Agency for Criminal Justice Cooperation, n.d.). These joint efforts aim to disrupt significant drug trafficking transit routes and dismantle criminal organisations. The exchange of information through international databases plays a considerable role, enabling tracking suspects and networks. Particularly successful are operations intercepting large drug consignments at borders and identifying key players in this illicit business. Furthermore, regular training sessions and conferences for law enforcement personnel facilitate the exchange of experience among countries and enhance professional expertise. International cooperation ensures not only operational efficiency but also a global approach to addressing the drug trafficking problem.

The drug trafficking situation in Azerbaijan remains one of the primary threats to national security and public health. Azerbaijan serves as a crucial transit point for drugs transported from Afghanistan, Iran, and other Central Asian countries to Europe, as well as to Russia. Due to its geographical location, intercontinental routes, and the presence of the Caspian Sea, the government holds a key role in global drug trafficking routes. According to the Ministry of Internal Affairs of Azerbaijan, recent years have shown a consistent rise in drug-related offences, particularly in border areas where attempts to smuggle drugs across the national border frequently occur.

An analysis of modern methods for combating drug trafficking networks in Azerbaijan reveals that law enforcement agencies actively utilise diverse strategies to address this issue. One of the primary approaches is the application of digital surveillance. Through satellite monitoring technologies and data analysis, law enforcement officials can track the movement of suspicious vehicles and vessels. Simultaneously, undercover operations are employed, wherein law enforcement officers pose as buyers or intermediaries to gather intelligence and identify drug traffickers. Controlled deliveries are also actively utilised, allowing drugs to pass through border checkpoints to identify and dismantle international networks.

To enhance the effectiveness of anti-drug operations, Azerbaijan also collaborates extensively with international organisations such as the UN and Interpol (European Union Agency for Criminal Justice Cooperation, 2021). This collaboration facilitates data exchange, joint operations, and the training of law enforcement personnel in modern methods of combating transnational crimes. However, according to numerous experts, there remains a need to improve cooperation with neighbouring countries such as Iran and Turkey, where international drug trafficking networks are also highly active.

Statistics on drug-related offences highlight significant challenges in this area. For instance, according to the Ministry of Internal Affairs of Azerbaijan, over 5 tonnes of narcotic substances were seized in 2022, surpassing the figures of the previous year. Among the confiscated drugs, heroin, opiates, and synthetic narcotics predominate, with the latter posing the greatest threat to the youth population. At the national level, efforts to combat drug trafficking have been intensified through collaboration with domestic and international analytical centres specialising in drug-related issues.

The investigation of drug-related crime in Azerbaijan has yielded both successful cases and instances that failed to produce the desired outcomes. Successful operations are typically associated with international cooperation, the use of advanced technologies, and the enhancement of law enforcement capabilities to combat drug trafficking. For instance, in 2019, during a joint operation with Turkey and several European countries, large shipments of heroin moving through Azerbaijan's territory were intercepted. This achievement was made possible through integrating modern drug-detection technologies and the combined efforts of customs authorities, police, and border services. Furthermore, preventive methods and operational control were successfully employed by increasing the focus on transport networks and transit routes passing through the country. However, not all attempts to combat drug trafficking have been equally effective. For example, in some instances, law enforcement agencies encounter challenges such as corruption and insufficient coordination between different agencies, complicating the detection and dismantling of drug trafficking networks. Such deficiencies were observed during investigations involving several large drug shipments, where, despite the detention of several smugglers, portions of the drugs remained in circulation, indicating weaknesses in the monitoring system and the existence of loopholes within law enforcement structures that allow drug traffickers to evade punishment. Notably, the effectiveness of investigations depends on multiple factors, including internal coordination, international support, and the availability of modern technologies for combating drug-related crime.

The analysis of current investigation methods highlights that Azerbaijan employs various tools to enhance the effectiveness of anti-drug efforts. One of the latest advancements includes the use of forensic analysis of narcotic substances, which enables precise identification of drug types in circulation—an essential element in investigations and tracing the origins of contraband. Simultaneously, digital technologies help reduce investigation times and clarify how and where drug movement occurs. Despite significant efforts and advanced technologies, the drug trafficking problem in Azerbaijan remains pertinent due to numerous challenges, including high market demand for drugs, issues with corruption in law enforcement agencies, and the need for more effective legal frameworks and mechanisms for international cooperation.

Anti-drug operations are of great significance for Azerbaijan, as the country serves as a key transit route for drug traffickers moving narcotics between Central Asia, the Caucasus, and Europe (European Union Drugs Agency, 2024). This creates a high risk for national security and stability. Effective operations reduce the volume of illicit drug circulation and improve the overall law and order situation, decreasing crime and corruption within law enforcement bodies. Anti-drug operations encompass a wide range of measures, from using state-of-the-art technologies to detect drug trafficking to engaging in international cooperation to dismantle transnational criminal groups. For Azerbaijan, these operations are crucial not only from a security perspective but also considering their economic and social implications, as drugs have a devastating impact on public health, economic development, and social structures. Effective anti-drug measures are integral to the country's strategic policies to ensure regional stability and growth.

The first operation considered—"Caspian"—is one of the most significant in combating drug smuggling via waterways, particularly the Caspian Sea. This operation aimed to detect and intercept large-scale heroin smuggling from Afghanistan through Central Asian countries to Europe. Various strategies were implemented during this operation, including digital surveillance, which enabled the tracking of vessels and cargo suspected of carrying drugs. Specifically, integrating advanced technologies into maritime security allowed effective monitoring of cargo movements and significantly reduced the scale of smuggling. This facilitated the seizure of several hundred tonnes of drugs en route to Europe and the arrest of multiple criminal groups that organised the trafficking channel.

The "Transnational Silk Road Route" operation is another notable case, addressing drug smuggling from Afghanistan to Europe. This route passes through multiple countries, including Azerbaijan, and remains one of the most active pathways for illicit drug transportation. In this case, law enforcement authorities employed complex undercover strategies, such as the infiltration of agents into drug trafficking organisations. Operatives acted at various stages of drug transportation, identifying and dismantling illegal supply chains. These efforts resulted in the seizure of substantial shipments of heroin and other narcotic substances intended for European markets. Undercover work enabled the establishment of contacts with key figures in criminal organisations and the exposure of their operational schemes.

The third operation examined in the study—"Baku-Tehran"—focused on the transit of synthetic drugs from Azerbaijan to Iran. This route is critical due to Azerbaijan's strategic location between East and West, making it an essential transit hub for international drug trafficking. To address this issue, law enforcement authorities employed controlled delivery techniques involving specially organised operations whereby drugs were monitored and transferred to subsequent stages of transportation under police supervision. Controlled deliveries not only facilitate drug seizures but also enable the investigation of supply chains, leading to more effective dismantling of all participants in criminal activities.

The evaluation of the effectiveness of applied methodologies emerged as a crucial aspect of this study. Various approaches were utilised, with forensic analysis of narcotic substances playing a particularly prominent role. This method enables the precise identification of the types of drugs being transported and allows the gathered data to be used as evidence in court cases. Forensic analysis helps identify drugs and determines their origin, which is vital for uncovering international supply channels. This method allows law enforcement agencies to collect information that can be used to develop a comprehensive strategy to combat drug trafficking on a global scale.

Digital surveillance is another essential tool in combating international drug trafficking. It enables real-time monitoring of narcotic shipments across countries and seas. The digital surveillance system facilitates rapid responses to smuggling attempts and the identification of suspicious cargo moving through ports and borders. It contributes to the creation of a more transparent and effective anti-drug system, reducing the likelihood that drugs will reach their intended consumers.

Overall, the analysis of cases such as the "Caspian" operation, the "Transnational Silk Road Route" operation, and the "Baku-Tehran" operation demonstrated the high effectiveness of the methodologies employed in combating drug trafficking. The use of digital technologies, undercover operations, controlled deliveries, and forensic drug analysis significantly enhances the capacity of law enforcement agencies to tackle international narcotics smuggling. Furthermore, the research highlighted the importance of international cooperation and coordination with other countries in successfully addressing this global issue.

**Table 1**

*Results of the Survey on the Fight against Drug Trafficking*

Question	Answers
1. What methods of combating drug trafficking do you consider to be the most effective?	45% - strengthening border controls, 30% - international cooperation, 25% - use of analytical technologies
2. What are your main challenges in working with international drug traffickers?	50% - lack of operational information, 35% - insufficient coordination with other countries, 15% - legal barriers
3. What methods of collecting and analysing evidence are the most effective in combating drug trafficking?	40% - big data analysis, 30% - use of undercover agents, 30% - interception of communications
4. What experience do you have in international drug trafficking investigations?	60% - participated in international operations, 25% - only local experience, 15% - cooperation through Interpol
5. What, in your opinion, are the main factors contributing to the success or failure of the fight against drug trafficking in Azerbaijan?	40% - financing, 35% - legal framework, 2 5% - coordination with international partners
6. How do you assess the role of international cooperation in the fight against drug trafficking?	70% - critically important, 20% - useful but insufficient, 10% - ineffective
7. What innovative technologies could be helpful in the fight against drug trafficking?	50% - artificial intelligence, 30% - drones for monitoring, 20% - blockchain for tracking finances
8. How do you assess the effectiveness of drug trafficking prevention strategies in Azerbaijan?	20% - effective, 50% - partially effective, 30% - ineffective
9. What changes do you think are needed in Azerbaijani legislation to improve the fight against drug trafficking?	40% - harsher penalties, 30% - simplification of international cooperation procedures, 30% - increased transparency of judicial processes
10. How do you assess the role of the public in combating drug trafficking in the country?	50% - important for prevention, 30% - not active enough, 20% - need support through educational campaigns

*Source:* Author's development.

The survey results revealed that the most effective methods of combating drug trafficking include strengthening border controls, supported by 45% of participants, international cooperation (30%), and analytical technologies (25%). The primary challenges faced by professionals working with international drug traffickers are the lack of timely intelligence, insufficient coordination with other countries, and legal barriers. Participants noted that the most effective methods for gathering and analysing evidence include big data analysis, undercover agents, and intercepting communications. Most respondents have experience participating in international operations (60%), while others work

only at the local level or interact through Interpol. Key factors contributing to success or failure in combating drug trafficking, as identified by participants, include funding, the legal framework, and international coordination. The role of international cooperation was critically crucial by 70% of respondents, while a smaller proportion pointed out its shortcomings or ineffectiveness.

Innovative technologies such as artificial intelligence, drones for monitoring, and blockchain were identified as the most promising tools in the fight against drug trafficking. However, participants expressed mixed views regarding the effectiveness of Azerbaijan's drug prevention strategies: only 20% considered them effective, whereas the majority highlighted the need for substantial improvements. To address this, participants emphasised the necessity for legislative reforms, including stricter penalties, simplifying procedures for international cooperation, and increasing transparency in judicial processes. The public also plays an important role: 50% of respondents stressed its significance in crime prevention but noted insufficient civic engagement and the need for educational campaigns. Overall, the survey results underscore the need for a comprehensive approach to combating drug trafficking, encompassing legislative improvements, intensified international cooperation, the implementation of advanced technologies, and increased public awareness.

The case study results demonstrated that modern investigative methods, particularly digital technologies, have significantly enhanced the effectiveness of combating drug trafficking networks in Azerbaijan. The implementation of big data analysis systems enabled the identification of key members of criminal groups and their financial connections and money-laundering schemes. Specialised software for monitoring social networks and messaging platforms facilitated the tracking of communication channels between drug traffickers. Drones and other aerial surveillance tools proved effective in detecting storage and transportation sites for drugs, significantly reducing the time required to gather evidence. The analysis also revealed that introducing electronic databases for information sharing between domestic law enforcement agencies and international partners facilitated the rapid exchange of operational data on cross-border crimes. This approach led to the dismantling of several large drug laboratories operating under the guise of legitimate businesses and integrating cyber intelligence into investigations, exposing new methods for concealing criminal activities, such as using cryptocurrencies to finance operations, which had previously evaded traditional investigative techniques. Thus, modern investigative methods have proven their effectiveness in uncovering the complex operational structures of drug trafficking networks, contributing to enhanced national security and a reduction in the illegal drug trade within the country.

Based on the analysis of modern drug trafficking investigation methods in Azerbaijan, recommendations were formulated to strengthen the fight against this global issue. A key focus was the adoption of advanced technologies for digital evidence analysis, enabling more efficient collection, processing, and interpretation of information obtained during investigations. Specifically, specialised significant data analysis software was proposed to identify key members of drug trafficking organisations, their financial flows, and communication channels. This approach allows the tracking of criminal activities and uncovers hidden connections between members of organised groups, which previously remained unnoticed due to the lack of adequate analytical tools. Another significant aspect is the strengthening of international cooperation in combating drug trafficking. Given the transnational nature of drug trafficking, successful countermeasures require coordination between law enforcement agencies from different countries. In this regard, creating unique platforms for information exchange and coordination of joint operations aimed at dismantling drug networks was proposed. Joint operations, including the exchange of operational data, coordinated raids, and the development of shared strategies, not only improve the effectiveness of combating drug trafficking but also foster trust among law enforcement agencies in different states. Additionally, international cooperation facilitates the detection of new methods criminals employ to transport drugs, finance their operations, or conceal illegal activities.

The analysis further identified that the level of training among law enforcement personnel is a key factor influencing their effectiveness. Consequently, it was proposed that systematic training programmes for law enforcement officials be introduced. These programmes should cover theoretical foundations and practical skills, such as working with advanced technologies, analysing digital evidence, using cryptography to uncover crimes involving cryptocurrencies, and organising intelligence operations in cyberspace. Such training initiatives will not only enhance the qualifications of law enforcement personnel but also improve the efficient use of existing resources in combating drug trafficking.

Implementing digital evidence analysis technologies is particularly significant in the contemporary context, as criminals increasingly rely on digital platforms to organise their activities. Analysing data from social networks, messaging platforms, and other digital sources enables law enforcement agencies to obtain timely information about the locations of criminal group members, drug transportation routes, and storage sites. In line with these recommendations, developing a unified database consolidating information on suspects, drug trafficking channels, and previous counter-operations was proposed. This approach will facilitate the swift exchange of information between different law enforcement units and help avoid duplication of efforts. Regarding international cooperation, particular emphasis was placed on establishing regional drug trafficking control centres to coordinate actions among neighbouring countries. Azerbaijan's strategic geographical location makes it a key participant in the global fight against drug trafficking. Regional centres can facilitate large-scale operations targeting transit routes passing through the country. Furthermore, within the international collaboration framework, the initiative to create a global platform for monitoring the use of cryptocurrencies in drug trafficking was proposed. Such a platform would enable law enforcement agencies to trace financial transactions potentially linked to the illegal drug trade and respond promptly to emerging threats.

The law enforcement training recommendations aim to improve personnel qualifications and promote an interdisciplinary approach to drug trafficking investigations. Specifically, it was suggested that cybersecurity, financial investigations, and social engineering experts be involved in training programmes. This would ensure a comprehensive investigation approach, accounting for all aspects of drug networks' activities — from transportation logistics to money laundering schemes. Additionally, to enhance training efficiency, simulation centres were recommended, where law enforcement personnel could practise real-life scenarios and hone their skills in a controlled environment. This hands-on approach is expected to significantly improve the practical preparedness of law enforcement agencies in combating drug trafficking.

## **Discussion**

The research conducted as part of this study is of considerable significance for understanding the effectiveness of existing methods for investigating and identifying criminal networks involved in drug trafficking in Azerbaijan. The findings highlight the importance of implementing modern technologies, such as data analytics and social network analysis, to determine connections between participants in criminal schemes. This underscores the necessity of fostering collaboration among government bodies, law enforcement agencies, and international partners to reduce drug-related crime rates. Aliyeva's study (2023) demonstrates that the effectiveness of policies combating crime can be substantially improved by introducing innovative approaches within law enforcement activities. This aligns with our conclusion that utilising advanced methods, such as data analytics and international platforms for monitoring drug trafficking, is a crucial aspect of combating drugs in Azerbaijan.

Our findings are consistent with those of other scholars, particularly Asgarov and Mustafayev (2024), who emphasise the importance of applying innovative technologies to enhance the efficiency of investigative measures in Azerbaijan. They point to the necessity of creating integrated platforms for information exchange between various government institutions and international organisations,

enabling criminal networks' swift identification and dismantling. Similar methods are actively utilised in other countries, such as Japan, where social network analysis techniques are employed to identify participants in drug trafficking (Baradel & Breuer, 2024). However, despite these similarities, specific differences exist. In Azerbaijan, the digital infrastructure for detecting criminal networks is not as advanced as in some other countries actively implementing cutting-edge technologies to combat drug trafficking (Du et al., 2020). This highlights the need to improve infrastructure to support modern investigative methods, such as image recognition, intelligent systems monitoring suspicious transactions, and more.

Studies conducted in other countries, such as Sweden (Feltmann et al., 2021), also confirm the importance of a comprehensive approach to tackling drug trafficking, which includes not only operational measures but also preventive and social programmes. Identifying drug traffickers through social networks and analysing information about participants in drug markets forms an essential part of this strategy. In Sweden, technologies for tracking transactions via cryptocurrency and other anonymous platforms are actively utilised, enabling effective identification of channels for the illegal distribution of drugs.

The findings also align with approaches adopted in the European Union, where considerable attention is devoted to international cooperation and information exchange in combating drug trafficking. As noted by Stevens (2019), the application of critical strategies in drug policy can yield better outcomes in fighting drug trafficking, mainly through the coordination of efforts between government agencies and international partners. Luong (2019) investigated drug production, consumption, and trade in the Greater Mekong region, focusing on cross-border challenges in combating drug trafficking. In a subsequent study, Luong (2020) concentrated on the organisational structure of transnational drug trafficking groups in Southeast Asia, using the Vietnam-Laos border as a case for analysis. Halyuk (2019) explored the specifics of regional policies for combating drug addiction and preventive measures, emphasising the importance of coordination at the local level. Hawken (2023) provided an overview of the history of global drug policy regulation under the United Nations, highlighting the evolution of approaches to addressing drug-related issues.

Golichenko (2020) argued that documenting human rights violations alone is insufficient for reforming outdated drug policies in Eastern Europe and Central Asia, underscoring the necessity of a comprehensive approach to combating drug trafficking. Kitachayev (2019) and Frank et al. (2021) examined the issue of drug addiction in Azerbaijan, drawing attention to societal indifference towards this problem and the need for government intervention. Klein and Stothard (2018) studied the global drug control regime, analysing its crisis and inefficiencies amid changing drug policies. Koram (2019) explored how the war on drugs impacts global social inequality and political dynamics, stressing the need for reforms. Khrustalev and Middell (2021) analysed legal methods of combating drug trafficking in the Middle East, outlining trends and perspectives for their application. Machethe and Mofokeng (2022) and Baltzer (2018) examined the impact of illegal drug networks on the efficiency of law enforcement agencies in South Africa, emphasising the challenges of combating well-organised groups. Loveth et al. (2022) investigated the role of mass media in addressing drug abuse among students, stressing the effectiveness of information policies. Mammadli (2023) analysed factors of sustainable consumption in Azerbaijan, which are significant for social and economic change but indirectly related to counteracting drug trafficking through social priorities.

Based on the obtained results, it can be concluded that further research should focus on improving technologies for real-time data collection and analysis. This will enable faster responses to emerging threats and more efficient detection of new drug trafficking schemes. Further studies should also aim to assess the effectiveness of digital tools for identifying not only key players in drug trafficking but also smaller links in the supply chain. Particular attention should be paid to developing methods for analysing social networks and employing artificial intelligence to predict possible future drug

distribution routes. This will facilitate not only the detection of current trafficking schemes but also the forecasting of potential risks.

## **Conclusions and Implications**

The study enabled an in-depth analysis of contemporary approaches to combating drug trafficking in Azerbaijan based on examining key practical cases. It was revealed that the most effective methods include digital surveillance, undercover operations, controlled deliveries, and forensic analysis of narcotic substances. Each approach has its advantages: digital surveillance facilitates the detection of encrypted communication channels; undercover operations provide access to the internal structures of criminal networks; and controlled deliveries and forensic analysis allow the identification of drug production sources and key actors involved in trafficking. A comparative study with practices from other countries, particularly Turkey, Georgia, and Russia, demonstrated that Azerbaijan exhibits significant potential in combating drug trafficking but requires improvements in operational response, enhanced international cooperation, and the implementation of advanced technologies. The key success factors in this field include increasing the technical capabilities of law enforcement agencies, developing specialised training programmes for personnel, and intensifying joint international operations. An important aspect remains the modernisation of legislation to establish transparent mechanisms for prosecuting criminals and improving conditions for global collaboration.

Survey results indicate that the fight against drug trafficking must be comprehensive: the combination of innovative technologies, improved legislative initiatives, and public engagement is critically important for effective counteraction. Simultaneously, emphasising international cooperation will enhance information exchange, optimise joint operations, and elevate overall security levels. The study's implications include the development of practical recommendations for Azerbaijan's law enforcement agencies, which could form the foundation for further improvements to the national anti-drug trafficking strategy. The findings can also be adapted for countries facing similar challenges, ensuring better international integration and effective counteraction to cross-border crime.

## ***Suggestions for Future Research***

Future research could explore the impact of artificial intelligence (AI) technologies in combating drug trafficking. Particular attention should be given to AI for analysing large datasets, predicting smuggling routes, and identifying criminal networks. A promising avenue involves examining the potential of blockchain technology for tracking financial flows associated with illicit drug trafficking and using drones and geo-analytics for monitoring transit zones. Another important direction is the evaluation of the effectiveness of international operations and the integration of best practices in drug control from other countries. This would allow for the optimisation of inter-state cooperation and improved information sharing.

Research may also encompass social aspects, such as analysing the influence of community initiatives and awareness campaigns on drug prevention. Examining the role of education and the media in shaping public consciousness about this issue could help develop more effective preventive measures.

Additionally, it would be beneficial to investigate the effectiveness of recent legislative initiatives in various countries, providing practical recommendations for improving Azerbaijan's legal framework. Equally important is an in-depth analysis of the challenges law enforcement agencies face and the development of professional training programmes to enhance their competencies in modern investigations.

Future research should focus on a comprehensive approach that considers the technological, legal, international, and social aspects of combating drug trafficking. This will improve law enforcement activities' efficiency and contribute to creating a more resilient and secure society.

## Acknowledgements

None.

## Conflict of Interest

None.

## Funding

The author received no funding for this research.

## References

- Aliyeva, Z. (2023). State policy of preventing crimes against a person: Which best practices should be used by Azerbaijan? *Problems and Perspectives in Management*, 21(4), 771–789. [https://doi.org/10.21511/ppm.21\(4\).2023.57](https://doi.org/10.21511/ppm.21(4).2023.57)
- Asgarov, B. M., & Mustafayev, M. H. (2024). Systematic analysis of the use of innovative approaches in operational and investigative activities: The Republic of Azerbaijan case. *Futurity Economics & Law*, 4(3), 34–46. <https://doi.org/10.57125/FEL.2024.09.25.03>
- Baltzer, M. (2018). Redefining drug offences in Southeast Asia. *Singapore Academy of Law Journal*, 30(2), 776–796. <https://search.informit.org/doi/10.3316/informit.067811087225176>
- Baradel, M., & Breuer, N. (2024). Mapping drug smuggling networks in Japan: A social network analysis of trial documents. *Global Crime*, 25(3–4), 220–241. <https://doi.org/10.1080/17440572.2024.2375241>
- Du, J., Guo, J., Kang, D., Li, Z., Wang, G., Wu, J., Zhang, Z., Fang, H., Hou, X., Huang, Z., Li, G., Lu, X., Liu, X., Ouyang, L., Rao, L., Zhan, P., Zhang, X., & Zhang, Y. (2020). New techniques and strategies in drug discovery. *Chinese Chemical Letters*, 31(7), 1695–1708. <https://doi.org/10.1016/j.ccl.2020.03.036>
- European Union Agency for Criminal Justice Cooperation. (2021). *Eurojust report on drug trafficking: Experiences and challenges in judicial cooperation*. Publications Office. <https://data.europa.eu/doi/10.2812/204889>
- European Union Agency for Criminal Justice Cooperation (n.a.). *Drug trafficking*. <https://www.eurojust.europa.eu/crime-types-and-cases/crime-types/drug-trafficking>
- European Union Drugs Agency. (2024). *European drug report: Trends and developments*. [https://www.euda.europa.eu/publications/european-drug-report/2024\\_en](https://www.euda.europa.eu/publications/european-drug-report/2024_en)
- Frank, V. A., Rolando, S., Thom, B., Beccaria, F., Duke, K., & Herold, M. D. (2021). Editorial DEPP: Drug experienced young people in contact with the criminal justice system. Understanding the challenges and working towards solutions. *Drugs: Education*, 28(1), 1–6. <https://doi.org/10.1080/09687637.2020.1825627>
- Feltmann, K., Gripenberg, J., Strandberg, A. K., Elgán, T. H., & Kvillemo, P. (2021). Drug dealing and drug use prevention – A qualitative interview study of authorities' perspectives on two open drug scenes in Stockholm. *Substance Abuse Treatment, Prevention, and Policy*, 16(37), Article 37. <https://doi.org/10.1186/s13011-021-00375-w>
- Luong, H. T. (2019). Drug Production, Consumption, and Trafficking in the Greater Mekong Sub-Region. *Asian Survey*, 59(4), 717–737. <https://doi.org/10.1525/as.2019.59.4.717>
- Luong, H. T. (2020). The organisational structure of transnational narcotics trafficking groups in Southeast Asia: A case study of Vietnam's border with Laos. *Trends in Organized Crime*, 23(4), 385–411. <https://doi.org/10.1007/s12117-020-09384-w>

- Halyuk, A. V. (2019). General characteristics of activities related to the prevention and counteraction of drug addiction at the regional level. *Scientific Bulletin of Public and Private Law*, 3(2), 113–119. <https://doi.org/10.32844/2618-1258.2019.3-2.18>
- Hawken, A. (2023). Legalising the drug wars: A regulatory history of UN drug control. *Addiction*, 118, 579–579. <https://doi.org/10.1111/add.16078>
- Golichenko, M. (2020). Documenting human rights violations is not enough to reform archaic drug policies in Eastern Europe and Central Asia. In D. R. Bewley-Taylor & K. Tinasti (Eds.), *Research Handbook on International Drug Policy*. Edward Elgar Publishing. <https://doi.org/10.4337/9781788117067.00016>
- Kitachayev, B. (2019, February 2). “Not my problem” – drug addiction in Azerbaijan. JAMNews. <https://jam-news.net/not-my-problem-drug-addiction-in-azerbaijan/>
- Klein, A., & Stothard, B. (Eds.). (2018). *Collapse of the Global Order on Drugs: From UNGASS 2016 to Review 2019*. Emerald Publishing Limited. <https://doi.org/10.1108/9781787564879>
- Koram, K. (Ed.). (2019). *The war on drugs and the global colour line*. Pluto Press. <https://doi.org/10.2307/j.ctvdmwxn7>
- Khrustalev, V., & Middell, M. (2021). Legal Methods of Combating Drug Trafficking from the Middle East: Trends and Prospects. SSRN. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3980714](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3980714)
- Loveth, O., C., A. K., M., O. K., W., E. E., Okodogbe, P., & Odionyenma, C. U. (2022). Effectiveness of Mass Media in the Fight against Drug Abuse among Undergraduates of Tertiary Institutions in Imo State. *South Asian Journal of Social Studies and Economics*, 14(3), 1–10. <https://doi.org/10.9734/sajsse/2022/v14i330380>
- Machethe, P., & Mofokeng, J. (2022). The impact of illicit drug networks on the effectiveness of law enforcement in South Africa. *Technium Social Sciences Journal*, 27, 338–360. <https://techniumscience.com/index.php/socialsciences/article/view/5355/1954>
- Mammadli, M. (2023). Factors Driving Sustainable Consumption in Azerbaijan: Comparison of Generation X, Generation Y and Generation Z. *Sustainability*, 15(20), Article 15159. <https://doi.org/10.3390/su152015159>
- Md Onzer, M. I., Abdul Majid, M., & Othman, Z. (2022). The History, Modus Operandi And Challenges of Combating Drug Smuggling at Langkawi Island with Its Links to The Golden Triangle. *Journal of Islamic, Social, Economics and Development (JISED)*, 7(45), 273–299. <http://surl.li/yjlzrt>
- Mostyn, B. (2024). Drug trafficking as crime against humanity: Global moral panics and drugs at the United Nations. *Critical Criminology*. <https://doi.org/10.1007/s10612-024-09772-6>
- Oksanen, A., Miller, B. L., Savolainen, I., Sirola, A., Demant, J., Kaakinen, M., & Zych, I. (2020). Social Media and Access to Drugs Online: A Nationwide Study in the United States and Spain among Adolescents and Young Adults. *The European Journal of Psychology Applied to Legal Context*, 13(1), 29–36. <https://doi.org/10.5093/ejpalc2021a5>
- Ovcharenko, M. O., Tavolzhanskyi, O. V., Radchenko, T. M., Kulyk, K. D., & Smetanina, N. V. (2020). Combating illegal drugs trafficking using the internet by means of the profiling method. *Journal of Advanced Research in Law and Economics*, 11(4(50)), 1296–1304. [https://doi.org/10.14505//jarle.v11.4\(50\).26](https://doi.org/10.14505//jarle.v11.4(50).26)
- Ritter, A. (2021). *Drug Policy* (1st ed.). Routledge. <https://doi.org/10.4324/9781003224501>
- Stevens, A. (2019). ‘Being human’ and the ‘moral sidestep’ in drug policy: Explaining government inaction on opioid-related deaths in the UK. *Addictive Behaviors*, 90, 444–450. <https://doi.org/10.1016/j.addbeh.2018.08.036>

- Striltsiv, O., & Bukovsky, Y. (2021). Directions for improving the regulatory and legal regulation of the activities of units and bodies of the National Police of Ukraine in combating illegal drug trafficking. *Bulletin of the LDUVS named after E.O. Didorenko*, 3(95), 172-183. <https://journal.lduvs.lg.ua/index.php/journal/article/download/1415/1283/>
- Sultan, A. (2021, June 21). *Drug services in Azerbaijan during the COVID-19 pandemic*. Baku Research Institute. <https://bakuresearchinstitute.org/en/drug-services-in-azerbaijan-during-the-covid-19-pandemic/>
- Sultan, A. (2022). 'What's the Problem Represented to Be?' The Place and Wellbeing of Young People in Azerbaijan's Drug Policy. *Child Indicators Research*, 15(4), 1163-1178. <https://doi.org/10.1007/s12187-021-09874-5>
- Sultan, A. (2023). Situating the Local in Global Drug Policy Debates: Historical Overview of Political and Drug Market Developments in Azerbaijan. *Journal of Illicit Economies and Development*, 5(2), 78-91. <https://doi.org/10.31389/jied.215>
- Syroid, T. L. (2024). The mechanism of the European Union in combating drugs as a component of ensuring public health. *Uzhhorod National University Herald. Series: Law*, 4(84), 345-359. <https://doi.org/10.24144/2307-3322.2024.84.4.48>
- UNODC. (2021). *Continuation of training on cyber elements of drug trafficking and open source research in Central America and the Dominican Republic*. <https://acortar.link/laDmJm>
- Volobueva, O., Leheza, Y., Pervii, V., Plokhuta, Y., & Pichko, R. (2023). Criminal and Administrative Legal Characteristics of Offenses in The Field of Countering Drug Trafficking: Insights from Ukraine. *Yustisia*, 12(3), 262-277. <http://dx.doi.org/10.20961/yustisia.v12i3.79443>
- Wall, M., & Bewley-Taylor, D. (2021). *The global drug policy index: Methodology*. The Global Drug Policy Index. [https://globaldrugpolicyindex.net/wp-content/themes/gdpi/uploads/GDPI\\_Methodology\\_EN.pdf](https://globaldrugpolicyindex.net/wp-content/themes/gdpi/uploads/GDPI_Methodology_EN.pdf)
- Yashasvi, C. (2020). Illicit Drug Trafficking and Financing of Terrorism. *Journal of Defence Studies*, 14(1-2), 69-91. <http://surl.li/zyrbre>
- Yukhno, O., Matyushkova, T., & Korshenko, V. (2019). *Peculiarities of the investigation of crimes related to the illegal circulation of narcotic drugs or psychotropic substances using modern telecommunication and other technologies*. Kharkiv: KhNUVS. <http://dspace.univd.edu.ua/xmlui/handle/123456789/9805>
- Zigon, J. (2018). *War on People: Drug User Politics and a New Ethics of Community* (1st ed.). University of California Press. <https://doi.org/10.1525/california/9780520297692.001.0001>