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Governance challenges in security and social order: Rethinking drug policy in Kazakhstan

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Abstract

This article examines the governance challenges of drug policy in Kazakhstan within the broader context of public security and social order. It argues that the persistence of a repressive paradigm limits effectiveness, while preventive, interdisciplinary, and governance-based strategies are essential for modernization. The study applies a qualitative and interdisciplinary methodology, combining legal analysis, institutional assessment, and expert perspectives. Sources include legislative texts, statistical data, and secondary literature, supplemented by evaluations of the role of the Internet and social networks in reshaping narcotrafficking practices. The findings highlight three dimensions. First, Kazakhstan's legal framework shows incremental progress in regulating precursors, sanctions for illicit trafficking, and the control of new psychoactive substances. Second, online platforms and social networks have fostered hybrid trafficking models with distinct criminal roles. Third, law enforcement agencies face governance and institutional constraints that undermine their ability to respond effectively to drug-related crime. The study concludes that rethinking Kazakhstan's drug policy as an instrument of public security and social governance is essential for preserving social order, strengthening institutional capacity, and contributing to global debates on modern drug control strategies.

Keywords: Drug policy, Kazakhstan, Law enforcement, Narcotrafficking, Public security.

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1. Introduction

The increasing complexity of drug-related challenges in Kazakhstan underscores the necessity of rethinking state policy within the framework of public security and social governance. The rise of synthetic substances, the proliferation of online platforms facilitating illicit distribution, and structural limitations in law enforcement institutions have exposed weaknesses in the existing regulatory framework. These developments demonstrate the inadequacy of an exclusively repressive paradigm and highlight the importance of preventive, interdisciplinary, and governance-oriented strategies. These national challenges must therefore be analyzed not only in isolation but also in the context of international debates on the effects of drug policy design for public safety. The study of Kazakhstan's drug policy is situated within broader debates on the relationship between drug control strategies and public safety. International scholarship shows that policy liberalization can generate both benefits and risks depending on institutional strength and social context [1]. Against this background, the Kazakhstani case illustrates how governance-based approaches may define a distinct trajectory of reform, positioning drug policy as an instrument of public security and social order.



Figure 1.
Flows of Afghan opiates to Western Europe via Kazakhstan, Russia and Belarus [2].

Kazakhstan is facing a growing challenge associated with the domestic production of synthetic drugs and the smuggling of precursors from neighboring countries. Youth are increasingly drawn into drug trafficking, acting both as consumers and distributors. The rapid expansion of internet technologies and social networks has further facilitated the rise of online drug sales, while the “dead drop” delivery system, which first emerged in Russia, is now spreading into Kazakhstan. Opiates in Kazakhstan mainly arrive in transit from Afghanistan through the country via the “Northern Route.” This route is actively used by organized crime groups from Central Asian states. In addition to being a transit country, Kazakhstan is also a consumer market for cannabis. Similar to several other countries in the region, since approximately 2015, Kazakhstan has seen an increase in the consumption of synthetic drugs. More recently, the country has become an independent domestic producer of synthetic drugs [2].

The establishment of local synthetic drug production in clandestine drug laboratories occurs through the use of precursors and equipment originating from Russia and China. The precursors for synthetic drugs are delivered to Kazakhstan predominantly from Russia [3]. Today, the main types of drugs present on the illegal market in Kazakhstan include: opiates; synthetic drugs, the production of which has become widespread within the country; naturally growing and cultivated cannabis and its derivatives; and pharmaceutical drugs containing psychoactive substances - commonly referred to as “pharmacy” drug addiction.

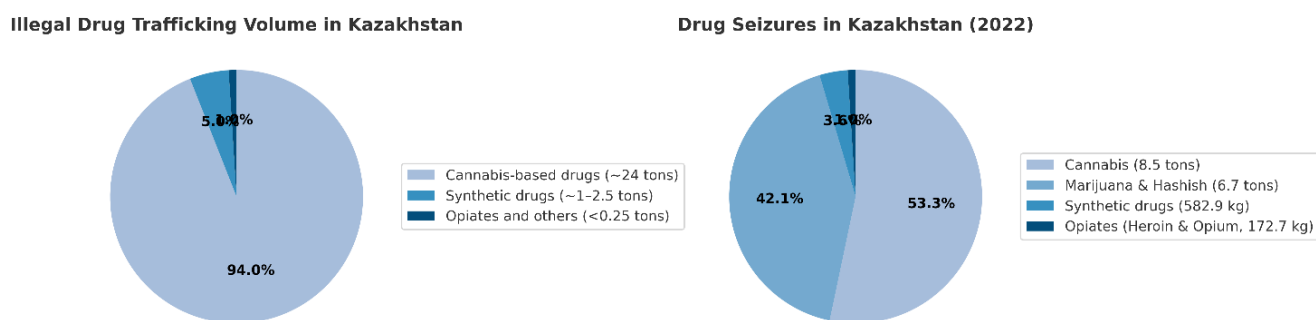


Figure 2.

The annual volume of illegal drug trafficking in Kazakhstan amounts to approximately 20–25 tons. More than 95% of this volume consists of cannabis-based drugs, about 5% are synthetic drugs, and less than 1% includes opium, heroin, and other substances. In 2022, the seizure figures were as follows: a total of 15.9 tons, of which synthetic drugs made up 582.9 kg (3.6%), heroin and opium – 172.7 kg (1%), marijuana and hashish – 6.7 tons (42%), and cannabis – 8.5 tons (53.2%) [4].

The Role of the Internet in the Illicit Drug Trade has greatly increased. Since the 2010s, foreign online platforms, instant messaging services, electronic wallets, and later cryptocurrencies, anonymous and fake "drop accounts" have been actively used in drug trafficking. Today, "online drug stores" are most often created through mobile applications such as Telegram. Young people may be offered jobs as stashers, couriers, or individuals who post advertisements for websites selling drugs. Under current Kazakhstani legislation, all of these activities are criminal offenses and are punishable by long prison terms [5]. The role of the Internet in the illicit drug trade and drug use is emphasized in the annual report of the International Narcotics Control Board (INCB). The INCB states that online drug trafficking has increased the availability of drugs on the black market. The Board warns that patient safety is at risk due to illegal online pharmacies selling medications directly to consumers without prescriptions. The Board urges governments to utilize the full range of tools and programs offered by the INCB to support their efforts in combating the use of the Internet for illicit drug trafficking [6].

The participation of young people as drug distributors and users has increased. Law enforcement agencies report that Tramadol (a pharmaceutical product and a potent opioid analgesic) is becoming a "gateway" drug to addiction for teenagers. In Kazakhstan, there is also a growing trend of youth involvement in the illicit drug trade, both as distributors and as users. The main factor contributing to the involvement of young people in drug trafficking is their broad access to various Internet resources, including those that advertise and sell drugs openly. One of the reasons for the widespread use of synthetic drugs is their low cost. In both Kazakhstani and international practice, there have been cases where such drugs are disguised as chewing candies and lollipops [5].

1.4 The "dead drop" delivery system of drug trafficking has spread to Kazakhstan. The groundbreaking shift in the global drug trade, first started in Russia, is now spreading worldwide. This system differs from traditional drug trafficking models in that it uses darknet markets and cryptocurrencies for anonymous transactions. This allows buyers to extract drugs from hidden physical locations or "dead drop" without physical contact. The Russian darknet markets control about 93% of the global share, with revenues of about 1.5 billion US dollars for 2023 for such large platforms as Kraken, Mega and Blacksprut. This dominance marks a new era for organized crime, as Russia's digital drug economy far surpasses traditional Western darknet markets in scale and influence [7]. The growth of the illicit drug trade in Russia is driven by several unique national factors: restrictive anti-drug policies, strained Western trade relations, and a solid technological foundation. Due to these conditions, the cache model has changed the way drugs are distributed in Russia. Now, drug transactions do not involve face-to-face interaction; instead, orders are placed online, paid for in cryptocurrency, and retrieved from secret locations in different cities within a few hours. This system, which offers convenience and anonymity, has led to the fact that synthetic drugs such as mephedrone have overtaken traditional imported substances such as cocaine and heroin in Russia and Kazakhstan. These powerful synthetic drugs are cheap, easy to manufacture, and easily distributed through extensive delivery networks. Outside of Russia, this model of drug trafficking is now expanding across borders, posing risks to public health and safety. It strongly affects young people, which leads to violence, criminalization and increased dependence on synthetic drugs. The smuggling of various concentrates, precursors and ready-to-use substances occurs mainly from the territory of Russia through mail and transport and logistics companies. The model of the Russian cache trade in synthetic drugs is rapidly spreading beyond Russia. It has become the main method of buying drugs in several countries on the border with Russia, making synthetic drugs and drug trafficking jobs more accessible. It is also gaining momentum in Asia, and its presence has been noted in Europe [8].

To analyze the governance challenges of Kazakhstan's drug policy in the context of new threats to public security and social order, the authors formulated three main research questions. First, what legislative transformations shape the legal framework for drug control, including the regulation of precursors, sanctions for illicit trafficking and consumption, and the adaptation of regulatory mechanisms to new psychoactive substances and medicines? Second, how has the structure of drug-related crime been reshaped under the influence of the Internet and social networks, and what new criminal roles have emerged in online and hybrid forms of trafficking that affect governance and enforcement capacity? Third, what institutional and organizational problems confront law enforcement agencies in countering drug crime, and what governmental measures are required to modernize state strategy so that drug policy functions as an instrument of public security and effective social governance?

2. Methodology

The methodological framework of the study is structured around three interrelated research tasks.

First, the analysis relies on an integrated methodological framework that combines formal legal, comparative, historical, and systemic analysis with doctrinal interpretation and elements of legal forecasting. This approach makes it possible to identify and interpret the key legislative transformations in the field of drug and psychotropic substance control and to assess their implications for governance and social order.

Second, the study examines the digital dimension of drug-related crime and the evolving roles of criminal groups in online and hybrid drug trafficking. To this end, it employs criminological, cyber-criminological, and sociological approaches, supported by content and social network analysis. In order to understand how government, law enforcement, and society reinterpret the impact of the Internet and social media on drug-related crime, the study applies discourse analysis, frame analysis, and critical discourse analysis. These methods are complemented by sociological tools such as surveys, interviews, and focus groups, as well as comparative analysis of institutional and public narratives.

Third, the research addresses the institutional and organizational challenges of law enforcement practice and their broader governance implications. Formal legal analysis is used to identify contradictions and gaps in existing legislation, while institutional analysis provides insights into structural and organizational limitations. These approaches are complemented by sociological methods, including surveys and expert interviews, together with systemic analysis of the interrelations between law enforcement agencies, governmental institutions, and society in ensuring public security and effective social governance.

3. Results

The results of the first research task indicate a significant transformation of Kazakhstan's legal framework for drug control, largely driven by the spread of synthetic and new psychoactive substances. These substances, characterized by low cost and rapid addictiveness, have led to the expansion of regulation and stricter criminal liability. Major reforms include the introduction of the concept of "analogues" in 2015 and the transfer of authority to the Government in 2019 to update the list of controlled substances. In 2020, online sales and incitement to drug use were criminalized as serious offenses, and a provision on drug advertising and propaganda was added to the Criminal Code. By 2021, synthetic drugs were legally classified as "hard drugs," placing about 300 substances and over 1,000 analogues under state control. The procedure for listing new substances was simplified, allowing additions by government decree. In 2024, 11 new synthetics and 17 precursors were added. Further reforms lowered the threshold for criminal liability to 1 gram for widely used synthetics and, in 2025, tightened sanctions for production and distribution, especially by officials, up to 20 years or life imprisonment. Differentiated penalties were introduced for first-time "street-level dealers," often minors, while group and repeat offenses remain severely punished. Overall, these measures illustrate a shift toward a more adaptive framework capable of responding quickly to the dynamics of the synthetic drug market.

The second research task highlights the hybrid nature of drug trafficking through social media, which combines online advertising with offline transactions. This undermines the strict division between digital and street markets and reflects broader dynamics of illicit economies. In Kazakhstan, criminal groups operate as decentralized digital enterprises with clearly distributed roles - organizers, manufacturers, operators, couriers, advertisers, and administrators - adopting e-commerce practices such as deposits, arbitration, and customer feedback. The rapid spread of synthetic drugs, facilitated by access to precursors, further strengthens these networks. The profitability of online and hybrid drug markets demonstrates not only their resilience but also their integration into broader economic circuits. Such criminal enterprises increasingly mimic legitimate business practices, blurring the line between illicit and formal economies. This dynamic is captured by the concept of Narco-capitalism, which highlights how drug economies infiltrate institutions and governance structures. Law enforcement monitoring illustrates the scale of the problem: in 2024 more than 800 internet resources and 300 messenger channels were blocked, while the Financial Monitoring Agency identified 36 online "stores" with turnover exceeding 25.6 billion tenge (51 million USD). Despite such measures, anonymity of organizers and fast replacement of platforms hinder enforcement. The Cybernadzor system is used to detect and block illegal content, but lengthy legal procedures reduce its effectiveness. Overall, online and hybrid drug trafficking in Kazakhstan represents a technologically advanced and resilient model of organized crime, requiring governance-based counterstrategies, stronger interagency coordination, and integration of cybersecurity tools into law enforcement practice.

The third research task revealed systemic challenges in drug control and modernization needs. The Comprehensive Plan to Combat Drug Addiction and Drug Trafficking for 2023–2025 sets priorities in legislation, prevention, rehabilitation, and international cooperation. However, the surge of synthetics - seizures increased one hundredfold in four years - exposed institutional gaps. Forensic examinations often last over a month, delaying investigations and weakening the inevitability of punishment, with more than 100 offenders placed on the wanted list. Surveys of law enforcement identified barriers such as the fast turnover of online markets, lengthy blocking procedures, anonymization technologies, lack of specialists, and weak interagency cooperation. Suggested solutions include automated monitoring with artificial intelligence, device identification, digital forensic tools, creation of "digital squads," and stronger cooperation with internet platforms. Additional problems include under-equipped borders, legislative gaps (domestic precursor trafficking not criminalized), unreliable accounting of drug users, and limited treatment capacity. Misuse of pharmaceuticals such as tramadol, tropicamide, and nitrous oxide-especially among adolescents -further aggravates the situation. Experts recommend strengthening border inspections, improving forensic laboratories, introducing early screening, expanding rehabilitation centers, and developing cybercrime capabilities. Collectively, these measures are critical to transform Kazakhstan's drug policy into an effective instrument of public security and social governance.

4. Discussion

The results presented above demonstrate the multidimensional nature of Kazakhstan's drug policy challenges, combining legislative, digital, and institutional dimensions. These findings require further interpretation in order to understand their broader implications for governance, public security, and social order. Against this background, the discussion begins with an examination of the first research task.

4.1. *Evolving Drug Markets and Legislative Adaptation in Kazakhstan*

In Kazakhstan, as well as globally, drug markets have been reshaped by the growing prevalence of synthetic and new psychoactive substances. Their accessibility and strong psychotropic effects have driven legislative reforms aimed at strengthening control and adapting regulatory mechanisms to a rapidly changing environment. The fundamental legal basis for such reforms remains the Act of the Republic of Kazakhstan on Narcotic Drugs, Psychotropic Substances, their Analogues and Precursors, and Measures of Counteraction to Their Illicit Trafficking and Abuse, which provides the framework for subsequent amendments and regulatory innovations. This is mainly due to the fact that "traditional" (opium) drugs are beginning to give way to new psychoactive substances in the illegal market. They are distinguished from cannabis and other types of drugs by their relative cheapness, and according to medical observations they have a pronounced psychotropic effect and rapid addiction formation. Considering the above and other changes in the local illegal drug market, the Kazakh authorities have initiated amendments to the current legislation. So, in 2015, the institute of "analogues" of narcotic drugs and psychotropic substances was introduced. In 2019, the Government of the Republic of Kazakhstan was given the competence to approve lists of substances subject to state control. In 2020, inciting to consumption and selling drugs via the Internet were classified as serious and especially serious crimes. New crimes have also been introduced – advertising and propaganda of drugs. In 2021, "synthetics" were classified as heavy drugs. Due to the accepted standards in Kazakhstan, almost all currently known dangerous types of synthetic drugs are controlled by government agencies (about 300 substances in total and more than 1,000 of their analogues).

The mechanism for bringing new psychoactive substances under the control of government agencies has been simplified. The legal responsibility for the advertising and online sale of drugs and the use of the Internet has been strengthened. Since January 10, 2024, a new qualifying feature (aggravating circumstance) has been introduced into the criminal legislation of Kazakhstan for drug crimes - "using electronic communication systems." This crime is provided for in a number of articles of the Criminal Code of the Republic of Kazakhstan: sale of drugs; trafficking in derivatives for their manufacture; involvement in drug use using electronic communication systems [9]. According to the legislation of Kazakhstan, these crimes belong to the category of grave and especially grave crimes and long terms of imprisonment are established for their commission. A new norm, Article 299-1, has been introduced into the Criminal Code of the Republic of Kazakhstan, which criminalizes (criminalizes) advertising and propaganda of drugs. According to this article of the Criminal Code of the Republic of Kazakhstan, criminal liability is imposed for distributing links to Internet sites promoting and selling drugs, as well as for graffiti drawings with addresses of drug sites. The punishment under this article of the Criminal Code of the Republic of Kazakhstan provides for imprisonment of up to 3 years. If this crime is committed by a group of persons, repeatedly or in educational organizations, then up to 6 years of imprisonment [10]. The new mechanism for bringing new psychoactive substances under the control of state bodies is implemented through the adoption of a Government Decree (an act of the executive body). Previously, amendments to the legislative acts of the Parliament (the act of the representative body) were required. Currently, new types of synthetic drugs and chemicals appearing on the illegal market are included in the list of narcotic drugs, the distribution of which entails criminal liability by Government Decree [11]. For example, the aforementioned Decree of the Government of the Republic of Kazakhstan was amended in 2024 to include 11 new types of synthetic drugs and 17 names of precursors – chemicals used for drug production [12]. Another important area of changes in the legislation of Kazakhstan on combating drug trafficking was the reduction of the criminal weight of the most popular drugs to bring a person to criminal responsibility. Previously, 50 grams of drugs such as pyrovalerone (speed), mephedrone (mef) and synthetic cannabinoids (spices) were required to accuse a person (criminal liability) of drug crimes, but now 1 gram is enough [4].

In 2025, the President of the Republic of Kazakhstan signed an Act strengthening criminal liability for drug production, as well as for the manufacture, processing, and distribution of narcotic substances by officials. Now, for these crimes, the perpetrators can be sentenced to imprisonment for a term of 15 to 20 years or life imprisonment with confiscation of property. Along with this, the Act slightly mitigated the penalties for drug pawnbrokers. For committing such a crime for the first time without aggravating circumstances, the Act established imprisonment for a term of 5 to 8 years with confiscation of property (previously 5 to 10 years with confiscation of property). This mitigation of punishment is due to the fact that the so-called drug dealers, most of whom are teenagers and young people, did not directly manufacture or process them themselves, and were often used by the organizers of drug trafficking for their criminal purposes. However, repeated commission of a crime will result in severe punishment in the form of imprisonment for a period of 7 to 12 years with confiscation of property.

At the same time, the Penal Code retained rather harsh sanctions for persons distributing drugs as part of a criminal group, in educational organizations, and for minors, providing for punishment in the form of imprisonment for a period of 15 to 20 years with confiscation of property. The Penal Code also tightened the criminal liability of officials for drug distribution. If earlier they were threatened with imprisonment for a term of 10 to 15 years with confiscation of property for these crimes, now they are provided with imprisonment for a term of 15 to 20 years with confiscation of property. In addition, the Act provided for other measures aimed at increasing the effectiveness of countering illicit trafficking in narcotic drugs and potent substances. For these purposes, criminal liability has been established for the illegal cultivation of

prohibited plants containing narcotic substances by a criminal group and on an especially large scale. Criminal liability has been introduced for the illicit trafficking of precursors and potent substances, as well as substances, tools and equipment used for the production of drugs, precursors, toxic and potent substances. Responsibility has been established for violating the rules for handling analogues of drugs, psychotropic substances, as well as precursors and potent substances [13].

4.2. Hybrid Drug Trafficking and Digital Governance Challenges

Building on the findings of the first research task, which revealed significant legislative transformations, it becomes evident that legal measures alone cannot fully address the dynamics of contemporary drug markets. The rapid digitalization of illicit activities necessitates a deeper examination of how the Internet and social networks reshape drug crime. This provides the basis for analyzing the hybrid nature of online and offline trafficking and the distribution of criminal roles within these networks.

Drug trafficking through social media is described as existing "between crypto markets and street drug markets" [14] as it usually combines online marketing with the personal exchange of money for drugs between sellers and buyers. Although offline elements are usually mentioned in passing, existing research tends to focus mainly on the online aspects of this type of drug trade. For example, this method of sale is commonly described as "online drug trafficking," "social media trading," or "app trading," while sellers are described as "social media merchants" or "online merchants," and the market area as an "online marketplace," "digital market," "application market" or "social media market" [15]. The problem with separating "social media trading" into a separate new category is that this is often done through a demarcation process in which "online drug sales" are contrasted and differentiated from so-called "street" and "traditional" markets, including the analog "telephone market." The result is too often disjointed thinking [16] and an underestimation of the importance of continuity, intersections and relationships between online and offline areas, markets and sales methods. It is important to bridge the gap between online and offline drug trafficking by exploring the hybrid nature of drug trafficking through social media. The researchers of this issue [17] have illustrated how many sellers are not technological exclusionists, how many of them use a multi-channel approach to sales that includes both online and offline means, and how combinations of online and offline spheres play a central role in recruiting drug workers by sellers and in their massive search for drugs for resale. The findings of these authors point to the importance of replacing traditional technocentric isolated thinking with a more holistic approach, and offer analytical, conceptual, and methodological reflections on how future research could better capture the mixed reality of most modern drug markets, including crypto markets [17].

The profitability of online and hybrid drug markets demonstrates not only their resilience but also their integration into broader economic circuits. Such criminal enterprises increasingly mimic legitimate business practices, blurring the line between illicit and formal economies. This dynamic is captured by the concept of Narco-capitalism, which highlights how drug economies infiltrate institutions and governance structures [18].

Empirical evidence from Kazakhstan demonstrates that criminal groups involved in online and hybrid drug trafficking operate with a clear functional division of roles. These roles extend from the establishment and maintenance of digital platforms to the organization of logistics and the direct transfer of narcotic substances. Such structured differentiation reflects the increasing professionalization of illicit networks and their capacity to adapt to both technological and regulatory environments.

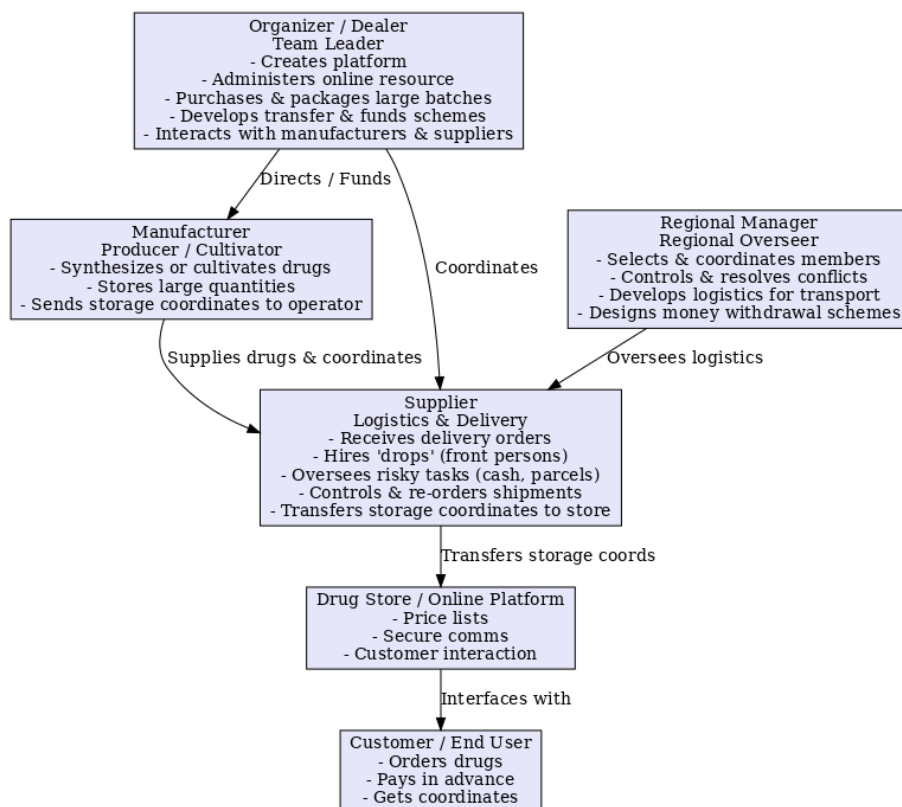


Figure 3.
Distribution of criminal roles in drug trafficking.

In hybrid drug trafficking, roles are clearly divided. The organizer establishes and manages the platform, oversees purchases and packaging, and coordinates financial schemes and supplier relations. The manufacturer produces or cultivates drugs, arranges storage, and transmits locations to the operator. The supplier manages deliveries, recruits' intermediaries ("drops"), and controls shipment logistics. The regional manager coordinates members in specific areas, resolves conflicts, and develops transportation and money-withdrawal schemes. Law enforcement experts emphasize that such groups operate as networked organizations, allowing rapid adaptation to legislation and concealment of activities. Their reliance on encrypted messengers, cryptocurrencies, and distributed databases strengthens resilience against state intervention.

Other roles in the criminal group structure:

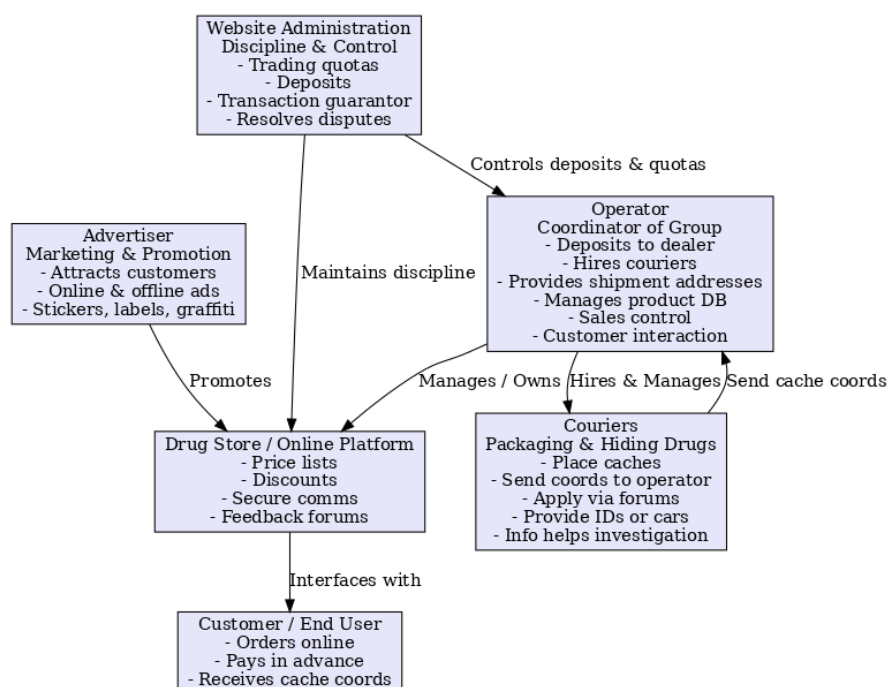


Figure 4.
Distribution of criminal roles in drug trafficking (continuation).

The operator coordinates group activities, managing deposits, courier recruitment, large shipments, databases of storage sites, and communication with clients through anonymous channels. Couriers package drugs into small batches, place them in caches, and report locations to the operator. Recruitment often occurs online, where applicants provide personal data that may later aid investigations. Groups present themselves as online “shops,” using standard e-commerce tools such as price lists, customer feedback, and delivery services. The advertiser promotes the “store” through digital and offline methods, while a high degree of anonymity ensures that members rarely interact directly. Payments are made in advance, with deposits from both clients and employees serving as guarantees. The administration of websites enforces discipline via trading quotas, deposits, and arbitration mechanisms that resolve disputes and maintain internal order. This structure illustrates the evolution of drug networks into decentralized service-based enterprises that replicate digital market practices. Internal financial controls and arbitration make these organizations resilient, highlighting critical nodes for potential disruption, such as the operator role and financial flows.

Although drugs such as cocaine, MDMA (ecstasy) and heroin are still imported, drug trafficking networks have been stimulated by darknet markets. to engage in the production and sale of synthetic drugs. In recent years, synthetics have begun to displace traditional drugs. The supply, fueled by the acquisition of precursors mainly from Russia, has greatly simplified. An increasing number of synthetic, potent, fast and cheap manufactured and consumed in Kazakhstan are produced here in our country. The damage caused to society and the health of society by the cache model of drug trafficking is catastrophically high. With such a cache model of drug trafficking, young people used as “kladmen” receive harsh sentences or face violence from their employers. Considering that over the past 4 years, the number of seized “synthetics” in Kazakhstan has increased 100 times, one can only guess at the actual volumes of synthetics on the market. Thus, modern drug trafficking on the Internet is a complex, technologically advanced network with a clear distribution of roles and internal control mechanisms. This requires the development of new counter-strategies by law enforcement agencies, including monitoring the Internet space, analyzing transactions, and strengthening cybersecurity measures. Given the complexity of such role distribution, effective monitoring of social networks and the wider Internet space has become essential for detecting and disrupting these criminal activities.

Law enforcement agencies in Kazakhstan actively monitor social networks and the wider Internet space to identify websites, channels, and advertisements related to the distribution of narcotic drugs, psychotropic substances, and their precursors. This practice has become a central element of counter-narcotics strategy in the digital environment. The purpose of constant monitoring of the Internet space by law enforcement agencies is to identify websites, posts, blogs and advertisements containing information about the distribution of narcotic drugs, psychotropic substances, precursors and their analogues. The Financial Monitoring Agency of the Republic of Kazakhstan (AFM RK) monitors the Internet space, covering Telegram channels, social networks, and advertisement services used for the distribution of narcotic drugs and precursors. The results of such monitoring in Kazakhstan are as follows. In the first half of 2024, 875 Internet resources were installed and blocked [5]. About 300 channels in messengers, 4 of the largest Darknet marketplaces where prohibited funds are sold, have been identified by monitoring. 80 users of Telegram channels who constantly advertised and also sold narcotic and psychotropic substances on the territory of Kazakhstan were identified. 3 large drug sales sites with a total number of participants of almost 35 thousand people were identified. Almost 10 thousand people who are potential users of narcotic drugs have been identified. The analysis showed that more than 50% of consumers come from Astana, Almaty and the Almaty region of Kazakhstan.

Law enforcement officers of the Financial Monitoring Agency of the Republic of Kazakhstan) in 2024, 36 drug stores with a turnover of 25.6 billion tenge (51,200,000 USD) were identified. 59 card accounts belonging to 60 drug sites are installed in the Telegram messenger [19]. In 2017, the Cybernadzor system developed by the IT company «Kazdream Technologies» began monitoring online content on the Internet. “Cybernadzor” is an information system used to monitor compliance with the legislation of the Republic of Kazakhstan on the Internet and in telecommunications networks, in accordance with the Communications Act. This system allows government agencies to coordinate efforts to detect, identify, and restrict illegal content on the Internet. There was no public information about the operation of this system. In 2022, information was published that the Cybernadzor project was used to identify drug transactions on the Internet and track criminals. In 2023, the law enforcement agencies of Kazakhstan planned to automate the detection of drug trafficking via the Internet, as well as set up website blocking functions online using artificial intelligence.

There are legal questions about how artificial intelligence can block websites online in this system. Kazakhstan’s legislation provides for legal restrictions on the operation of websites, requiring either a court decision or an order from an authorized body to temporarily suspend access to online content. In the Cybernadzor system, the algorithm of interaction between government agencies is as follows. Government agencies monitor content on the Internet, the distribution of which is prohibited or restricted on the basis of legal acts and court decisions. In case of detection of such content, government agencies send a notification to the authorized body (the Ministry of Culture and Information of the Republic of Kazakhstan) through Cybernadzor. The notification must contain the following information: the legality and validity of the information, screenshots of the identified materials that confirm their illegality. In the future, the Ministry of Culture and Information of the Republic of Kazakhstan shall make the following decisions: a) if a violation of the law is confirmed, it shall take measures to restrict access to the disputed content (in accordance with Article 41-1 of the Communications Act); b) if no violation of the law is confirmed, it shall dismiss the notification, providing justification for the absence of a violation of the legislation of the Republic of Kazakhstan [20].

Law enforcement agencies take measures to block such online resources. This year, for example, 604 drug sites were discovered and blocked. But this measure will not solve the problem dramatically, as new sites appear quickly. And identifying them is a long process. Establishing the organizers is even more difficult. Because they are abroad. Modern

hardware and software is needed to block such illegal content. Although operational staff can regularly use search engines to detect online stores engaged in illicit drug trafficking, the process of further blocking these resources is lengthy and time-consuming.

4.3. Integrated Challenges and Policy Directions in Kazakhstan's Drug Control

While the digital dimension of drug trafficking highlights the adaptability of criminal networks, it also exposes structural weaknesses in governance and enforcement. These limitations necessitate a broader analysis of the institutional challenges faced by law enforcement agencies and the governmental measures required to modernize Kazakhstan's state strategy.

4.4. Law Enforcement Insights on Countering Drug Trafficking

The survey of law enforcement officials highlights several systemic challenges and practical considerations in combating drug-related crime in Kazakhstan. Respondents emphasized the importance of online monitoring, the difficulties of countering anonymization technologies, weak cooperation with platforms, and the need for advanced technical expertise. Proposals include AI-based content analysis, device identification, creation of a 'digital squad', legal support for 'ethical hacking', stronger OSINT tools, and blockchain analysis to track financial flows.

Table 1.

Law Enforcement Insights into Countering Drug Trafficking (Directorate for Drug Control, Almaty Police Department)

Question	Summarized responses	Discovered problems	Proposed measures
How to improve detection of prohibited content?	Systematic monitoring of online platforms; need for automation	High turnover of sites; lengthy blocking procedures; lack of automation	AI content analysis; integration with search engines; unified registry of resources
What technical measures work against anonymization?	Device identification via IP/MAC; cyber intelligence methods	VPN/TOR use; IPv6 limits; legal barriers	Deployment of COPM 2.0; specialist training; legal reforms
How to improve cooperation?	Closer work with internet companies; clear technical standards	Foreign platforms' refusal to cooperate; lack of specialists	International memoranda; creation of digital squads; query standards

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4.5. Drug Policy Challenges in Kazakhstan

Table 2.

Drug Policy Challenges in Kazakhstan (Based on Interviews with Almaty Attorneys).

Question	Summary
What is the scale of the synthetic drugs problem in Kazakhstan?	Synthetic drugs became widely accessible; seizures grew tenfold in three years. Distribution via social media, messengers, and home delivery. Half of prisoners are linked to the drug trade.
How does the state fight the drug trade?	Predominantly punitive approach: 10–14 years imprisonment for the first offense. President Tokayev called synthetics a 'threat to the nation's health' and urged for a comprehensive plan.
What are the shortcomings of the punishment system?	Severe terms (10–15 years) for youth do not correct but destroy lives. Proposal: reduce terms for first-time offenders, toughen for recidivists.
What role do technologies play in the drug trade?	Drug trade moved fully online (Telegram, Signal, social media ads). Chemicals supplied from abroad via the internet. Proposal: engage IT specialists for blocking accounts and tracking transactions.
What systemic changes are needed?	1) IT solutions for blocking online sales; 2) Reform of punishments; 3) Prevention through education; 4) Tougher fight against chemical suppliers and corruption.

This table is based on interviews conducted with practicing lawyers in Almaty. The experts shared their views on the current challenges of Kazakhstan's drug policy, identified systemic shortcomings, and proposed possible reforms. Their

insights provide a professional legal perspective on the effectiveness of existing measures and future directions for improvement.

In this context, a Comprehensive Plan to Combat Drug Addiction and Drug Trafficking for 2023–2025 was adopted in June 2023 [4]. The Plan provides for the work of government agencies in the following areas: 1) Analysis of the drug situation and trends in its development; 2) Improvement of the legislative and regulatory framework; 3) Increasing the effectiveness of countering new challenges and threats of the modern drug business; 4) Improving the system of prevention, treatment of drug addiction and the development of a rehabilitation system for drug addicts; 5) Ensuring legal trafficking of narcotic drugs, psychotropic substances and precursors; 6) Strengthening and expanding international cooperation. However, over the past 4 years, the number of seized "synthetics" has increased 100 times. Therefore, the forensic examination of this type of drug belongs to the category of complex. It takes about 1 month or more to complete." In turn, this negatively affects the quality of the pre-trial investigation. The principle of the "inevitability of punishment" in relation to suspects is not respected. For example, without an expert opinion, it is impossible to apply the measure of "arrest". For this reason, 108 criminals have been put on the wanted list today. In this regard, it is planned to equip the forensic examination bodies with modern and high-quality equipment. Given these institutional limitations, the perspectives of law enforcement officials provide valuable insights into the practical challenges of combating drug trafficking and the measures required for policy modernization.

The survey results indicate that law enforcement agencies face both technological and institutional barriers in countering drug-related crime. While respondents identified promising tools such as AI-based monitoring, blockchain analysis, and OSINT, the absence of legal frameworks and technical expertise remains a critical obstacle. These insights underline the necessity of integrating advanced technologies into governance while simultaneously modernizing institutional capacity.

These conclusions provide the basis for identifying broader systemic vulnerabilities that extend beyond digital monitoring and enforcement practices. The main problems in ensuring public security and preventing drug crime in Kazakhstan include the persistence of stable channels for the illegal import of drugs, precursors, and related equipment, largely due to insufficient border control technologies. Drug networks actively exploit technological advances such as the Darknet, encrypted messengers, and crypto wallets. At the same time, the clinical features and research methods for new synthetic drugs remain insufficiently studied, which undermines both the formation of a zero-tolerance society and the effectiveness of law enforcement mechanisms against their spread [5]. According to Kazakhstan's legislation, the illegal trafficking of precursors and equipment for drug production within the country is not classified as a crime; only smuggling is criminalized, and liability arises only in cases of sale. This legal gap requires expert analysis of judicial practice and the development of guidelines for law enforcement agencies. Another significant weakness lies in the lack of mechanisms to monitor and restrict the circulation of medicines subject to abuse. Substances such as tropicamide and nitrous oxide are frequently misused to enhance the effects of synthetic drugs, while tramadol - a synthetic opioid - has emerged as an alarming "entry point" into drug use among adolescents.

These trends highlight the urgent need for legislative reform to classify the most dangerous pharmaceuticals as narcotic or psychotropic substances, while safeguarding legitimate medical access. Current statistics on drug addiction are also unreliable, with experts estimating the real number of users to be up to five times higher than official data. This underscores the necessity of creating an integrated system for prevention, treatment, and rehabilitation, supported by reliable monitoring mechanisms. Curbing the spread of synthetic drugs requires stronger control over precursors, substances, and production equipment, especially through border and customs inspections with modern detection technologies. At the same time, restrictions are needed on the misuse of internet technologies in the drug trade, including regulation of foreign online platforms, banking, and postal services. Strengthening the technological capacity of specialized units of the Ministry of Internal Affairs and expanding their cybercrime functions are essential steps. According to expert assessments [4] priority measures include: equipping border checkpoints with inspection systems; modernizing forensic laboratories for rapid analysis of synthetic drugs and biological samples; introducing early-stage screening for drug addiction; and expanding rehabilitation centers with improved monitoring of medical and social assistance.

An important direction for strengthening Kazakhstan's drug policy within the framework of public security and social order is the development of early warning mechanisms for new psychoactive substances. International practice in Central Asia demonstrates the potential of such systems to provide timely information for both law enforcement and health institutions. As highlighted in the Overview of Early Warning Systems in Central Asia [21] these mechanisms contribute to preventive governance by enabling rapid identification of emerging threats and by supporting coordinated responses across agencies and borders. Integrating similar approaches into Kazakhstan's strategy would enhance its capacity to address the causes of drug-related challenges rather than solely their consequences.

These findings reveal critical gaps in Kazakhstan's legislative and institutional framework for drug control. Addressing the misuse of pharmaceuticals, improving the accuracy of drug addiction statistics, and strengthening border, forensic, and cyber capacities are essential steps toward transforming drug policy into an effective instrument of public security and social governance.

5. Conclusion

The analysis of Kazakhstan's drug policy in the context of governance challenges demonstrates both notable reforms and persistent structural weaknesses. Since 2015, the absence of a comprehensive national program has significantly reduced the political and legal status of anti-drug initiatives, while administrative reforms have fragmented institutional capacities. Nevertheless, the findings of this study suggest that these shortcomings can be addressed through a governance-

based reorientation of policy. If Kazakhstan elevates drug policy to a higher political and legal level - by adopting a long-term national strategy and restoring the coordinating role of the Ministry of Internal Affairs - it will strengthen institutional coherence and overcome the current fragmentation of powers. If political and organizational measures are taken to modernize law enforcement agencies, supported by adequate resources, forensic expertise, and technological capacity, the state will be able to move from reactive responses to preventive governance. Similarly, if legislative reforms close existing gaps - particularly in the regulation of precursors and pharmaceuticals vulnerable to abuse - this will not only limit the spread of synthetic drugs but also reduce the role of pharmaceuticals such as tramadol as an "entry point" into addiction among youth. Combined with prevention, treatment, and rehabilitation programs based on reliable monitoring of drug users, these measures will help build a system aimed at addressing the causes of drug crime rather than only its consequences. In this way, the modernization of Kazakhstan's drug policy can transform it into an effective instrument of public security and social order. By integrating preventive, interdisciplinary, and governance-oriented approaches, Kazakhstan will not only reinforce national resilience but also contribute to shaping international debates on innovative strategies for drug control as part of broader efforts to safeguard public security and maintain a stable social order.

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