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Том 15, № 4

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LAW JOURNAL
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Volume 15, No. 4

CONTENTS

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State of research on the issues of state consumer policy in Ukraine

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Abstract
Attracting the attention of researchers of various fields of knowledge to the problems of human rights, the implementation of a certain type or specific right in the context of the national legal system is due not only to the conditions of martial law in Ukraine, but also to the global trend of changing the worldview paradigm from positivist concepts towards natural law. This situation makes it necessary to rethink the role of a person in society, the purpose of the state mechanism, its law enforcement and human rights institutions in ensuring human rights, in particular in the sphere of functioning of consumer relations. The purpose of the study: using the subject criterion to characterise the state of research on the implementation of consumer policy of the state, to identify promising areas of research, and to highlight the basic methodological tools of contemporary legal scholars. The methodological basis was formed in accordance with the essential characteristics of the phenomenon under study, so the methods of hermeneutics, comparison, functional analysis, and pragmatism were used in the writing process. The paper examined the most well-known studies by contemporary researchers, who focused on public consumer legal relations and the functioning of consumer markets. It was concluded that in the field of scientific economic and legal knowledge on the interaction of subjects of legal relations with the status of consumer (buyer) and producer (seller), several areas have been formed, which made up the source base of research and understanding of which allows forming objective ideas on the implementation of consumer policy of the state, distinguishing it from the phenomena of state policy and state consumer policy. The analysis of legal acts of the United States of America, the countries of the European Union, and international organisations on legal regulation of consumer relations helped to reveal the insufficient regulation of these relations in Ukraine and to encourage scientists and practitioners to harmoniously combine in the implementation of joint normative activities. The insufficient quality of work in Ukraine of entities authorised to implement control and

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preventive measures has been shown, which makes it impossible to fully bring violators to justice and compensate the consumer for losses. Consumer public associations do not work effectively enough, which is especially noticeable in the consumer market of medicines and food products

Keywords:
national policy; consumer policy of the state; harmonisation of legislation; consumerism; consumer; service provider; consumer rights protection

Introduction

Consumer topics are one of the most pressing problems of our time, given that consumption is one of the forms of existence of a social organism based on the laws of production, supply and demand, and a person, their life and health are recognised as the highest social value that is subject to protection. According to E.A. Minton & F.G. Cabano (2024), M. Grénman *et al.* (2024), A.L. Pearl (2025), the most important value that the law is meant to protect is the existence of human society and the life of each individual. In personal and social life, such values as freedom, equality, justice, humanism, and kindness play a fundamental role. And these values themselves have no meaning, but only with reference to the individual, to their real possibilities of self-realisation (Fedoruk, 2022). A characteristic feature of demand is the constant development of the needs and interests of social actors, which the market supply system aims to satisfy. The use of innovations, the development of technologies in the production sector provide a new range of offers with expanded consumer characteristics, which leads to the movement of the system of needs, contributes to the development of new requests for the use of previously unknown goods or services. In addition to changing consumer guidelines for the subject of use, requirements for the quality of goods and services are also changing.

Relevance is also reinforced by other factors of social life, which also have an objective origin and are associated with trends of a globalising nature. In particular, it is worth paying attention to the fact that the subject area of consumerism is quite wide, which becomes the basis for developing a number of regulatory components that would regulate the relevant industry. For example, as T. Lozova (2024) points out, "...due to Ukraine's acquisition of the status of a candidate for EU membership, the possibility of developing trade relations is expanding. A significant share of all goods subject to export and import is occupied by food products. In the current situation in Ukraine, the implementation of European requirements for food quality and safety has become extremely important. However, simultaneously, the issue of falsification of food products has become very urgent...".

Among other things, these include factors such as harmonising Ukrainian legislation with European Union legislation and adopting the high standards of developed countries for the quality of consumer goods and services. For example, Ukraine was one of the first countries to sign and ratify the MEDICRIME Convention[1], and from January 1, 2016, this agreement entered into force. The MEDICRIME Convention is the first international document offering a legal framework for global cooperation in the fight against counterfeiting of medicines and medical products and similar crimes. This Convention makes it a crime and sets out criminal liability for making fake drugs and medical products; supplying, offering to supply, and trading in fake drugs and medical products (The Ministry of Health reported..., 2023).

Subsequently, the Government of Ukraine approved the Concept for the Realisation of State Policy on the Prevention of Falsification of Medical Products and Approval of the Action Plan for its Realisation[2] aimed at ensuring the coordination of the work of executive authorities in order to protect society from counterfeit medicines, the introduction of labelling with a control identification mark, the introduction of an automated system for monitoring the turnover of medicines, and the action plan for its implementation was approved.

Among the subjective factors that make us turn to the problems of functioning of the consumer sphere are the facts of direct violation of the current legislation of Ukraine, in particular, in the areas of circulation of food and medicines. According to O. Kalinina (2021), the most common falsification in the production of flour and confectionery products. The main types of counterfeiting of these goods are qualitative and quantitative indicators, while assortment counterfeiting is much less common. In addition, falsification of a technological nature prevails. The most common subject of counterfeiting is bread and bakery products, where products of lower quality are sold under the guise of higher-grade products.

According to the state service for food safety and consumer protection, counterfeit goods are now the number one problem in our country. This is partly a

[1] Council of Europe Convention on the Counterfeiting of Medical Products and Similar Crimes Involving Threats to Public Health. (2011, October). Retrieved from https://zakon.rada.gov.ua/laws/show/994_b87#Text.
[2] Resolution of the Cabinet of Ministers of Ukraine No. 301-r "On Approval of the Concept for the Realisation of State Policy on the Prevention of Falsification of Medicinal Products and Approval of the Action Plan for its Realisation". (2019, April). Retrieved from https://zakon.rada.gov.ua/laws/show/301-2019-%D1%80#Text.

consequence of the pandemic, which has hit Ukrainians' pockets and emboldened "fraudsters". Thus, specialists of this service, in cooperation with public organisations and law enforcement agencies, constantly seize counterfeit goods throughout the country, in particular, they find counterfeit products in schools (Magaletska, 2021).

Given the urgency of the issue under consideration, researchers from one of the country's leading universities have developed methodological recommendations for detecting counterfeit products, which is a kind of response to the challenges of the time. The emphasis was placed on those categories of products that are most often falsified: dairy; alcoholic and non-alcoholic beverages; edible fats; meat products (Shabalina *et al*., 2022).

In turn, the raised issues are not limited only to the outlined areas, they are much broader and require a responsible and urgent solution. That is why, focusing on this topic, it is quite logical to investigate the current state of state consumer policy in our state. Accordingly, the purpose of this study was to critically review the scientific literature, the subject area of development of which is the issues of state consumer policy. To achieve the stated goal, the following tasks have been set: to identify the criteria for the subject area of scientific research conducted by representatives of domestic science who study issues related to consumption; based on an analysis of relevant sources, to establish the methodological tools used by the authors; to outline promising areas of scientific research for the field of consumer policy.

In the process of research, it was entirely appropriate and justified to use such methods of scientific cognition as: analysis, which encouraged a thorough understanding of existing developments in consumerism; hermeneutics – for interpreting the various scientific views of representatives of contemporary jurisprudence; comparison, the application of which helped to identify common and distinctive aspects of authors' opinion on a particular criterion of consumer policy; functional analysis – in developing criteria for the subject area of existing research and pragmatism – to identify promising areas for further research in the field of consumer policy. According to J. Paul (2025), "as the level of research in various disciplines increases, the importance of systematic literature reviews rises significantly. These reviews help to establish the research context, identify knowledge gaps, and substantiate scientific research". Therefore, based on the results of preliminary familiarisation with scientific sources that somehow relate to the problems of consumer rights, it seems possible to draw an interim conclusion about the state of research on the chosen topic. Considering the versatility of this social phenomenon (consumption), the diversity of subject categories and the inexhaustible consumer interests or needs, researchers' attention is drawn to various aspects of its understanding.

Methodological criterion for consumer policy research

A significant contribution was made by researchers who worked on issues of methodological content, laid the foundation for cognitive processes in the consumer sphere of society's life, determined the content and scope of fundamental concepts, such as "legal policy" (Onishchenko, 2024), "consumer policy of the state" (Romat, 2009; Tolstonog, 2015), "state policy in the field of consumer protection" (Zvereva, 2007; Lyha, 2023), etc. As a rule, researchers of the methodological basis of consumer sphere cognition move from general to specific, starting with the disclosure of the concepts of "policy" and "public policy" and gradually moving on to its specific type or sphere, thus touching upon public policy in the sphere of consumer rights protection. When examining the transformation of state policy in contemporary Ukraine, with an emphasis on the priority of human-centred ideology, experts argue that declaring human rights to be the main issue of today and recognising that the interests of the individual are more important than those of society and the state is a classic postulate of the legal doctrine of civil society, which can now reasonably be considered the most important area of the state's legal policy (Zvereva, 2007).

In addition to human-centrism, there are other approaches to highlighting the characteristics of certain types of state policy. Thus, for example, some researchers apply a functional approach, revealing the concept and content of the state policy of Ukraine in the field of consumer protection through the prism of state functions, such as: development of a system of legislative support for consumer protection; development and ensuring the effective work of executive authorities towards consumer protection; creation of a number of incentives for manufacturers and sellers to comply with consumer rights; support for public associations whose purpose is to protect consumer rights; research activities in the consumer sphere, etc. (Romat, 2009).

As A. Lyha (2023) notes, many researchers have paid attention to the definition of the concept of "state consumer policy" and the impact of state funds on business entities. However, such a concept as "state policy in the field of consumer protection" in the context of Ukraine's European integration was rather neglected. The researcher analysed the existing methodological approaches to the definition of the concept of "state policy", suggested her own definitions of state and consumer policy with an emphasis on the idea of socio-political consensus. Other researchers describe consumer policy as a state policy aimed at creating favourable conditions for saturating the market with high-quality and safe products (Zvereva, 2007), as a purposeful activity of the state aimed at effective regulation of socially important relations in the field of consumption, etc. (Romat, 2009). S.L.T. McGregor (2017) notes that: "Contemporary consumer policy is characterised

as interactive and integrative, full of variable boundaries and coalitions, and evolutionary roles for both the state, the market, and society". As can be seen from the above, these researchers adhere to the position of the exclusive role of state institutions in the development of consumer policy and its regulatory capabilities in certain important areas of public life, while not excluding integration with civil society institutions, which can be agreed upon.

Important are the studies by B. Leucht (2022), where the researcher revealed the influence of Great Britain on the development of consumer and information policies of the European Union. Consequently, after 1973, the existing concepts were rethought and the final priority of the economic model of European consumer citizenship over competing approaches was established. Along with this, S. Wahlen & K. Huttunen (2012) also analysed the main areas of the development of contemporary consumer policy of the European Union, where a significant contribution was made by Finland and Germany, the basis for which was the idea of free markets and individual freedom, which was emphasised by classical liberalism.

Thus, methodological developments of researchers within a specific field of scientific research are of exceptional importance for ensuring the objectivity and reliability of the results obtained. Such developments not only characterise the properties of cognitive tools, but also indicate the prospects for further research. In this regard, the issue of highlighting the methodological part is a mandatory accompanying component of the cognitive process, along with setting the entire range of other tasks, which ensures a harmonious combination of goals, tasks, and research results.

Criterion of protective mechanisms for implementing consumer rights

A group of studies aimed at understanding the protective mechanisms of consumer rights implementation using the potential of certain branches of national legislation, the institute of legal responsibility, etc., should also be highlighted (Radchenko, 2017; Zozulya, 2020; Tsurkan, 2023). Scientific literature points to the need for transformational processes in Ukraine's legal system: "...Ukraine's European integration commitments to harmonise systems require significant changes to the existing consumer protection system..." (Lyha, 2023). Covering the issues of protection, researchers, as a rule, return to the problems of legal regulation by means of administrative legal, criminal legal, economic legal regulation, given that state authorities operate within the framework of the law with the dominant use of legal means and procedures. Regarding the administrative and legal protection of the rights of consumers of financial services, it can be defined as a system of administrative and legal means implemented through regulatory and protective legal relations aimed at avoiding, stopping or preventing violations of consumer rights in the field of financial services (Radchenko, 2017). Among all the means of the legal regulation mechanism, attention is also paid to the issues of responsibility of consumer market participants. In this context, a specific concept mentioned in the scientific legal literature on consumer market regulation is the concept of administrative and economic sanctions, which was first introduced into scientific circulation in 1990. This type of sanctions is applied in administrative and economic relations by specially authorised bodies, and is aimed not so much at compensating losses to the state and other participants in economic relations, but at restoring the violated public economic order (Levchuk, 2007).

Concerned with the problems of protecting the consumer market from falsification, Tsurkan (2023) stated that the lack of adequate sanctions in the Criminal Code of Ukraine for falsification of medicines provokes unscrupulous parties to carry out illegal activities to open underground production facilities for the manufacture of counterfeit medicines and their further sale on the Internet, which further complicates the procedure for identifying violators. According to the author of the publication, for 8 years, since 2015, the courts have opened 199 criminal proceedings in cases of falsification and counterfeit goods. Of these cases, the courts issued only 3 sentences that entered into legal force for falsification of medicines.

The reasons for the emergence of a large number of counterfeit medicines on global markets are also being investigated, including the inconsistency of national legislation in the field of regulation of the development, registration and circulation of medicines, the underdevelopment of regulatory bodies, government bureaucracy and corruption, etc. (Zozulya, 2020). As indicated by K. Vakarieva (2025), referring to data from the World Health Organisation (hereinafter – WHO), every tenth drug in low- or middle-income countries, including Ukraine, is counterfeit. Fraudsters fake absolutely everything: from expensive cancer drugs to ordinary painkillers. They sell them via the Internet, where it is very difficult to check the authenticity of drugs.

WHO estimates that 600 million people, almost one in ten in the world, have been victims of poor-quality food consumption. 420,000 people die each year due to the consumption of dangerous food. 40% of foodborne illnesses occur in children under the age of five and cause an average of 125,000 infant deaths (Official website of the World Health Organisation, 2024). According to O. Tsurkan (2023), "...in recent years, the number of counterfeit medicines on the Ukrainian pharmaceutical market has increased, which is associated with rising prices for original medicines. In addition, the increase in the number of forgeries is associated with a complex procedure for proving a crime and a sense of impunity for persons who are engaged in forgery and falsification of medicines". It is necessary to consider the fact that

there are virtually no statistical data on falsification of medicines in Ukraine. The inability to determine the volume of counterfeit goods is conditioned by the lack of a unified system for monitoring the turnover of medicines (Zozulya, 2020).

The emphasis is somewhat shifting towards sociological and cultural approaches when it comes to social responsibility and a responsible attitude to doing business. According to Ya. Petrunenko (2023), business entities should apply a human rights-based approach when conducting business activities. In particular, the researcher emphasised the need to assign social responsibility to business entities, in other words, the development of a socially responsible business. Combining the approaches outlined above, scientific sources trace such a protective mechanism as the return of goods by the consumer. According to H. Abdulla *et al*. (2024), the restrictive return policy (shortening the time interval or introducing replenishment fees) also negatively affects sellers themselves (especially retailers), as the level of purchases and positive reviews decreases.

Thus, all the above-mentioned publications, united by the criterion of a protective mechanism, should be attributed to developments that at the theoretical level contribute to the development of a model of reliable guarantees for the implementation of consumer rights. However, guarantees work only if there are mechanisms for their implementation in the practical plane of life, and their breadth of implementation determines the need to determine the appropriate number of protective mechanisms, starting from ideological, educational principles of influence on consumer subjects, ending with the creation of appropriate motivations and incentives, reliable procedural algorithms, and the use of fair measures of influence.

Criterion for legal regulation of consumer relations

The issue of legal regulation of consumer relations has become a constant subject of scientific research, with coverage of international law acts, examples of national experience of states, the genesis and adaptation of consumer legislation in Ukraine, which allows for a more thorough approach to the analysis of trends in the development of the legal basis for the functioning of consumer markets (Lipanova, 2012; Saunders *et al*., 2021; Plotnikova & Shvaher, 2022).

In this context, the paper by O. Lipanova (2012) can be useful, which describes the stages of establishment of the legislative basis for the development of consumer markets in foreign countries and Ukraine. According to experts in the regulation of consumer relations, nawadays, the food supply chain has an international character, so effective cooperation between governments, producers, and consumers of food contributes to the maintenance of food safety. Given that the European Union has identified food safety as one of the priorities of its expanding policy, it is impossible to ignore the issues of international regulation of consumer relations and adaptation of national consumer legislation (Public Health Centre of the Ministry of Health of Ukraine, 2025). The proposals of researchers to use the experience of European countries, in particular, regarding the legal regulation of alternative financial dispute resolution institutions, expanding the range of entities authorised to make decisions (Plotnikova & Shvaher, 2022), are also relevant.

Among the prospects for the development of legal regulation of consumer markets, researchers see it necessary to supplement the current legislation with a number of novelties regarding the means of influencing subjects of economic relations, in particular, such as: termination and suspension of economic activities; nationalisation; management of state business institutions and organisation of privatisation; introduction of organisational and economic, standard and model contracts; procedures for compensation of losses in the field of management; punitive and operational and economic, administrative and economic sanctions (Lyha, 2022).

Complementing the system of knowledge about the experience of European countries, researchers give examples that are worthy of use in the legal system of Ukraine, or those that deserve to be studied with further adaptation of national legislation. For example, the International Consumer Protection and Enforcement Network (ICPEN) has been established in Europe. Its goal is to strengthen and improve legislation on consumer protection (except for product safety and economic standards of financial institutions). Twice a year (Kepko *et al*., 2021) network participants hold meetings where they discuss consumer rights issues, exchange information, and improve cooperation between participating countries.

One of the complex studies of a comparative nature and European integration direction was prepared by a representative of the Kyiv Scientific School, I.O. Tarasenko (2023), to highlight the features of human rights practice of Ukraine and the European Union in relation to consumers of financial services. It is noteworthy that the study contains both a methodological and empirical basis for further research, and the work itself has a multi-vector purpose, which is useful for both researchers and practitioners. The author of the paper thoroughly worked out the conceptual framework of the study, in particular, paid attention to the content processing of such basic concepts as "financial literacy", "financial culture", financial discipline", which creates conditions for further understanding of the legal status of subjects of consumption of financial services, highlighting their rights and obligations, allows us to better understand the behavioural elements of such a category of persons as subjects of consumption of financial services, namely, to identify the types of economic behaviour of the population and households, factors of propensity of the

population to save. Without exaggeration, the paper deserves a positive assessment due to the complexity and applied aspects of the financial services market.

The issues of European integration and adaptation of the legislation of Ukraine were not isolated, which are covered at the dissertation level, an example of which can be the paper by I.M. Stankova (2021), "Civil law regulation of consumer protection in the field of service provision". Investigating the most acute issues of legal regulation of the status of consumers, the researcher correctly noted that in the Law of Ukraine "On consumer Rights Protection" the concept of "consumer" is used in a narrow (legal) meaning and reflects the special status of the buyer, acquirer of services. Its rules regarding the definition of the category "consumer" and the use of special means of consumer protection do not apply to legal entities, citizens registered as individual entrepreneurs who order or use goods, works (services) for doing business, who also become consumers for doing business.

Positions on the legal regulation of neurotechnologies, which have become quite actively used in the contemporary consumer market, are also interesting. Many organisations use artificial intelligence in their marketing activities to save time and money, which also provides an individual focus on the customer by generating relevant text and images (Duivenvoorde, 2025). In particular, E. Steindl (2024) focused on the compliance of the European law on product safety with contemporary realities of using digital products. Other issues of a similar nature are also quite important. For example, the differences between smart contracts and regular contracts, especially in matters of blockchain. As M. Benseghir & N. Bendriss (2025) points out, the software features inherent in these contracts often circumvent consumer protection laws, for example, in a request to refuse to use them, which encourages legal experts to look for methods to ensure their implementation.

Cyber defence, privacy, and security are also relevant in the field of digitalisation and consumer law (Harkin *et al*., 2022). This area has become especially relevant in the modern world, when Ukraine faces daily threats of IPSO, data leakage, etc. Accordingly, to ensure proper security, the national cybersecurity coordination centre was established, whose activities are aimed at improving the effectiveness of the public administration system in the development and implementation of state policy in the field of cybersecurity (Semenenko *et al*., 2023).

Therefore, it can be concluded that publishing activity aimed at discussing issues of legal regulation is entirely justified, given that consumer relations always have a legal basis and are therefore directly linked to the quality of legislative support. It should be recognised that the quality of a legal act, the expediency of the legal structure of interaction between consumer market entities formed by legislation is an influential, but not the only criterion for determining the prospects for sustainable economic development. It is also necessary to consider the types of legal regulation and legal regimes, the combination of which will contribute to the implementation of the legislative goal.

Consumerism in consumer policy research

Researchers also paid attention to the problems of consumerism as a special social phenomenon aimed at improving consumer-manufacturer interaction, achieving a higher level of quality of consumer goods and services (Burlytska, 2020). All participants in consumer relations are interested in creating a system of consumer relations that would serve as a conflict – free environment in which the two most important parties cooperate on mutual interest – the consumer (aka the buyer) and the manufacturer or supplier of goods and services (aka the seller). The manufacturer tries to preserve the consumer of its goods and services, so it is forced to create all the necessary conditions for attracting the consumer to the system of market relations, without whose participation the latter cannot take place as such. Retaining the consumer, keeping them as a potentially regular buyer, allows the manufacturer not only to sell their product, but also to make a profit, plan subsequent production and profit programmes. Unfortunately, the current conditions indicate an unsatisfactory state of quality of goods and services, and the number of citizens' appeals to challenge the quality of products, the level of service or the provision of services is growing.

Under these conditions, consumer associations put forward their demands to be heard, and not only to bring the perpetrators to justice, set standards for the release of harmful products, but also to achieve the desired impact on entrepreneurs, get high-quality goods and services. Such associations of consumers into various societies, organisations or unions, unions that fight for their legitimate rights and interests, form a certain social stratum, a kind of movement for consumer rights, called "consumerism". In developed countries, consumerism is a conglomerate of citizens and government agencies concerned with protecting, guaranteeing, and empowering consumers, fighting unscrupulous producers, and unfair competition. Currently, consumerism operates in three areas – consumer education, independent examination of goods, and litigation.

For the purpose of comprehensive coverage of the phenomenon of consumerism, contemporary researchers (Stole, 2015) investigate the activities of international institutions and consumer movements, such as: the International Organisation of Consumer Unions, the World Organisation of Consumer Unions, the United Nations (UN), based on the results of which both consumer protection standards and the volume of consumer law itself, mechanisms for its implementation are developed. In this context, it is advisable to recall

the "Guidelines for Consumer Protection" developed by the UN General Assembly based on the results of summarising world experience, which allowed the participating countries to form national legal mechanisms for consumer protection, to encourage a high level of ethical standards of behaviour for the sphere of production and consumption. According to O. Burlytska (2020), the history of the development of consumerism in Ukraine has more than one year, and today its legislative framework includes more than 40 laws and regulations. However, these documents do not cover the entire list of existing protection problems, and they do not clearly regulate cooperation between public organisations and state authorities.

Thus, the issues of consumerism at present can be considered insufficiently developed from the standpoint of legal science. On the one hand – the presence of a significant number of regulations, on the other – the lack of proper levers of influence on the process of developing consumer policy, the introduction at the legislative level of effective mechanisms for controlling the quality of products, creating conditions for the joint use of the potential of public associations of consumers in countering unfair competition. It is these issues that can be included in the programmes of planned research of consumer policy specialists.

The criterion of greening in contemporary research

Under the influence of integration processes, issues of greening the consumer market, determining national and regional priorities, creating environmental mechanisms for consumption, and increasing the role of eco-standards are also being updated (Chernik, 2020). First of all, it should be understood that such trends of greening observed in consumer law are associated with the transformation of general ideas about nature and the role of human in it. The natural and legal concept of legal understanding is being updated, according to which a person receives rights from nature, and the state must fix them in its legal acts and protect them through legal mechanisms. Similar ideological ideas can be seen in the study of consumption issues, where the consumer is also a person and also needs environmentally friendly products, the presence of eco-markets, the functioning of environmentally friendly industries that do not harm nature. It is clear that the presence of rights in one party determines the presence of obligations in the other, which allows balancing the legal relations of the parties. Therefore, the manufacturer should switch to energy-saving and nature-restoring technologies, adhere to standards in the production of harmful consumer products, reducing the load on the natural environment. Another aspect of consumption, which is usually not mentioned or mentioned indirectly, is manifested in the fact that any consumer, regardless of their status (collective, individual, with a special status or not) is not only a consumer of goods or services, which occurs periodically by the will of the parties, but also a permanent acquirer of natural resources that make up the conditions and environment of their existence. For example, air that is continuously consumed by a person is a natural product, the purity of which causes increased consumer interest. However, the manufacturer does not always take care of this, putting the interest of its business ahead. It turns out that before entering into consumer legal relations, subjects are, in fact, equal consumers of natural goods in their status, which can manifest itself in an unfair attitude to nature.

The key term that allows understanding the genesis and trends of the state's consumer policy is the term "sustainable development", the content of which is associated not only with sustainability, but also with other important factors for society, for example, cooperation between Ukraine and the European Union countries in the field of nature protection. In particular, as noted by S.D. Chernik (2020), an important document was approved in 2015 at the UN Summit, "Transforming our world: The 2030 Agenda for Sustainable Development", which approved 17 Sustainable Development Goals[1]. The signing of the association agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their member states, on the other hand, confirmed Ukraine's intention to further cooperate at the regional level in the field of environmental protection.

As evidenced by an analysis of a number of sources, the general trend towards the greening of scientific knowledge is present in various fields and branches of science, given its global nature. Along with this, there is such a dependence – the more the intensity of production increases, the more environmental problems arise that threaten the existence of society. Therefore, the continuation of the search for the creation of eco-markets, the introduction of the ideology of reasonable consumption, energy saving technologies, natural restoration, etc., are not only promising, but also vital in the context of strategic scientific thinking.

Subject composition criterion

Separately, in the scientific sphere, there is a significant layer of research aimed at highlighting the subject composition of the development and implementation of the state's consumer policy, the functional powers of individual state and local government bodies, and public organisations (Magaletska, 2021; Levytska *et al.,* 2024). The most significant subject at the stages of development and implementation of consumer policy,

[1] Resolution Adopted by the General Assembly of UN "Transforming our World: The 2030 Agenda for Sustainable Development". (2015, October). Retrieved from https://www.refworld.org/legal/resolution/unga/2015/en/111816.

as one of the types of state policy, remains the state, and specifically – its authorised bodies, whose competence includes the management of the spheres of production and trade, where consumer interests are realised, relevant legal relations are born. These bodies acquired their significance due to the presence of power, the ability to set standards, make competent decisions, monitor their implementation, and use means of power coercion. That is, everything that is associated with the characteristic of a state authority, everything distinguishes it from the general subjects of consumer relations.

Control is one of the essential functions of state entities, due to which management takes place within the limits of specified goals, including in the consumer market. According to V. Magaletska (2021), specialists of the State Food and Consumer Service, in cooperation with public organisations and law enforcement agencies, constantly seize counterfeit goods throughout the country, in particular, they find counterfeit products in schools. Among the products that are most often falsified are fats and oils, fish and products made from it, meat and meat products.

As noted above, in addition to food products, medicines are also massively forged, therefore, the task of controlling entities is to detect counterfeit goods in a timely manner, implement preventive measures, etc. However, in addition to state authorities, representatives of civil society should also be included in the subjects of consumer relations, among which the individual consumer is the most important subject. Other researchers agree with this opinion, arguing that at the present stage of economic development, the consumer is a determining figure, since it creates conditions for the development of enterprises and influences success in competition. Interesting from the standpoint of the humanitarian dimension is the study of the consumer's personality in various aspects, which is also being worked on by consumer researchers. For example, the opinion of L. Wood *et al.* (2022) on the use of scientific information by various government agencies and transport institutions to shape transport policy is interesting from a scientific perspective. In particular, the researchers point out that depending on the legal status of the consumer, the requested information will be different.

Analysing different approaches of the researchers (Levytska *et al.,* 2024) to understand the concepts of "consumer as a person" and "subject", the following generalisations can be made: in scientific discourse, these definitions are interpreted differently; there is no single scientifically based stable understanding of the concept of a person; in economics, the person as a consumer is limited; the relationship between the individual and the consumer is not studied, etc. As can be seen from the above, for the branches of legal, sociological and psychological scientific knowledge, a promising area opens up for further research, the results of which can become useful in practical activities, including in pre-trial dispute resolution.

The study of the subject composition, considering the different functional roles of collective and individual subjects, allows answering a significant number of questions that arise in the field of consumer relations. One of these is the issue of the legal status of a person who falls within the scope of such legal relations. Along with the individual, collective actors also interact, some of which are endowed with power, which allows complementing the diverse picture of consumer market participants. However, as a defining one, the literature substantiates the opinion that behind each subject there is always a person endowed with rights and freedoms, which confirms the expediency of applying a human-centred ideology.

Conclusions

The study of the sphere of consumer relations was carried out in various aspects by representatives of various branches of knowledge, including legal specialists. Active searches were also conducted using the best practices of economic science. Giving preference to legal research, it seems possible to carry out classification in relation to the subject area of scientific interests of lawyers: sources of a methodological nature, which pay more attention to the methodology of consumer relations research, the content characteristics of the main concepts related to the development and implementation of consumer policy of the state, the organisation of consumer markets; sources aimed at highlighting the problems of legal regulation of consumer relations; sources devoted to the study of the phenomenon of consumerism; sources aimed at determining the ways of greening consumer markets, and those that characterise the subject composition of consumer legal relations.

However, insufficient attention was paid to the issues of the consumer protection mechanism. Considering the structure of this phenomenon, along with this additional study, such components as: rule-making, procedural and material guarantees, status legal norms of certain categories of consumers, etc., are subject to additional research. The issues of ways to environmentalise consumer policy were also insufficiently studied. The need for their further in-depth understanding is determined by the needs of sustainable development of Ukraine, in particular by implementing such operational goals as ensuring protection for all and introducing balanced consumer markets. Promising areas of consumer policy research should also be considered: adaptation of foreign experience in strengthening the role of consumer associations and resolving conflict situations; ways to form environmental markets with ensuring the standards of developed European countries. This is all the more relevant in the context of increasing trends in European integration in the legal sphere.

The main methodological tools of consumer research are hermeneutical, comparative, systematic and functional approaches, which allows researchers to obtain objective and justified results. In addition, the methodological base of consumer policy research also deserves criticism. If the demand method or comparison in synchronous and diachronous formats is present in many publications, then the methodology of human-centrism is used to a limited extent, which can be explained by the dominance of positivist ideology, an attempt to explain the problems of the consumer market through imperfect legislation. Overcoming this situation is possible by focusing cognitive tasks on the content of the rule of law and human rights, which will also affect the reorientation of methodological research tools.

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Conflict of Interest

None.

References

[1] Abdulla, H., Ketzenberg, M., Abbey, J.D., & Heim, G.R. (2025). The point of no return? Restrictive changes to lenient return policies and consumer reactions to them. *Journal of Operations Management*, 71(1), 81-108. doi: 10.1002/joom.1346.

[2] Benseghir, M., & Bendriss, H. (2025). The consumer's right to withdraw from blockchain smart contracts challenges and solutions. In R.K. Hamdan (Ed.), *Tech fusion in business and society. Studies in systems, decision and control*, *vol. 234* (pp.673-683). Cham: Springer. doi: 10.1007/978-3-031-84636-6_59.

[3] Burlytska, O.P. (2020). The essence of the concept and historical development of consumerism. *Bulletin of Khmelnytsky National University,* 5, 49-52. doi: 10.31891/2307-5740-2020-286-5-10.

[4] Chernik, S.D. (2020). Sustainable development as the basis of Ukraine's environmental policy. *Scientific Notes of the Volodymyr Vynnychenko Central Ukrainian State Pedagogical University*, 9, 64-68. doi: 10.36550/2522-9230-2020-1-9-64-68.

[5] Duivenvoorde, B. (2025). Generative AI and the future of marketing: A consumer protection perspective. *Computer Law & Security Review*, 57, article number 106141. doi: 10.1016/j.clsr.2025.106141.

[6] Fedoruk, N.S. (2022). Human-centeredness as a value-based and worldview guideline for reforming the conceptual apparatus of administrative law. *Private and Public Law*, 1, 67-72. doi: 10.32845/2663-5666.2022.1.15.

[7] Grénman, M., Hakala, U., Mueller, B., & Uusitalo, O. (2024). Generation Z's perceptions of a good life beyond consumerism: Insights from the United States and Finland. *International Journal of Consumer Studies*, 48(1), article number e12994. doi: 10.1111/ijcs.12994.

[8] Harkin, D., Mann, M., & Warren, I. (2022). Consumer IoT and its under-regulation: Findings from an Australian study. *Policy & Internet*, 14, 96-113. doi: 10.1002/poi3.285.

[9] Kalinina, O. (2021) *Falsification of food products and measures to the fraud prevention*. Retrieved from https://harch.tech/2021/03/01/kalinina/.

[10] Kepko, V., Novikova, V., & Stadnyk, L. (2021). Protection of the rights of consumers of non-food goods in the field of electronic commerce: european experience. *Economics and National Economy Management*, 1(71), 23-28. doi: 10.32836/2521-666X/2021-71-4.

[11] Leucht, B. (2022). Beyond 1973: UK Accession and the origins of EC consumer policy. *Global Policy*, 13 (2), 20-29. doi: 10.1111/1758-5899.13065.

[12] Levchuk, L.R. (2007). *Economic and legal liability of businessmen for violations in the consumer market*. (Unpublished Doctoral dissertation, National Academy of Sciences of Ukraine, Institute of Economic and Legal Research, Donetsk, Ukraine).

[13] Levytska, O., Pavlyshyn, M., Buriak, Ye., & Akmen, V. (2024). On the personality of the consumer of dairy products as a subject of the consumer market of the agricultural sector of Ukraine. *Visnyk of the Lviv University. Series Economics*, 67. doi: 10.30970/ves.2024.67.0.6717.

[14] Lipanova, O. (2012). Consumer policy: Evaluation of legislative rules and toward development. *Economic Innovations*, 49, 148-155.

[15] Lozova, T.M. (2024). *Commercial problems of food product falsification*. Retrieved from http://www.konferenciaonline.org.ua/ua/article/id-1879/.

[16] Lyha, A. (2022). Economic and legal means of state, regional, social and self-regulatory influence on business entities with the purpose of protecting consumer rights. *Subcarpathian Law Herald*, 5(46), 37-47. doi: 10.32782/pyuv.v5.2022.6.

[17] Lyha, A. (2023). Legal principles of state policy in the sphere of consumer rights protection. *Legal Scientific Electronic Journal*, 8, 192-196. doi: 10.32782/2524-0374/2023-8/44.
[18] Magaletska, V. (2021). *Food counterfeiting is the problem number one in Ukraine*. Retrieved from https://surl.li/vzofin..
[19] McGregor, S.L.T. (2017). Bringing complexity and convergence governance to consumer policy. *International Journal of Consumer Studies*, 41, 685-695. doi: 10.1111/ijcs.12381.
[20] Minton, E.A., & Cabano, F.G. (2024). Religion's influence on consumption: A life course paradigm perspective. *International Journal of Consumer Studies*, 48(2), article number e13022. doi: 10.1111/ijcs.13022.
[21] Official website of the World Health Organization. (2024). *Food safety*. Retrieved from https://www.who.int/news-room/fact-sheets/detail/food-safety.
[22] Onishchenko, N.M. (2024). Legal policy as a component of the state's European integration policy: Challenges, threats, prospects. *Bulletin of the National Academy of Sciences of Ukraine*, 7, 51-61. doi: 10.15407/visn2024.07.051.
[23] Paul, J. (2025). Crafting impactful systematic literature reviews: Thumb rules and suggestions. *International Journal of Consumer Studies*, 49(5), article number e70103. doi: 10.1111/ijcs.70103.
[24] Pearl, A.L. (2025). Recognising capabilities: The importance of recognition for human flourishing. *Modern Law Review*. doi: 10.1111/1468-2230.12976.
[25] Petrunenko, Y. (2023). The emergence of socially responsible business in the context of implementing the national human rights strategy. In *Fourth scientific readings in memory of academician V.K. Mamutov* (pp. 54-57). Kyiv-Odesa: Desna Polygraph.
[26] Plotnikova, M.V., & Shvaher, O.A. (2022). Extrajudicial ways of protecting the rights of consumers of financial services: Adaptation of Ukrainian legislation to the law of the European Union. *South Ukrainian Law Journal,* 4, 102-110. doi: 10.32850/sulj.2022.4.3.18.
[27] Public Health Center of the Ministry of Health of Ukraine. (n.d.). *Food poisoning*. Retrieved from https://phc.org.ua/kontrol-zakhvoryuvan/inshi-infekciyni-zakhvoryuvannya/kharchovi-otruennya.
[28] Radchenko, O.Y. (2017). *Administrative and legal protection of financial services consumers' rights.* (Doctoral thesis, National University of Life and Environmental Sciences of Ukraine Kyiv, Ukraine).
[29] Romat, E.V. (2009). Theoretical and methodological foundations and main directions of consumer policy implementation in the public administration system. In K.O. Maksymenko (Ed.), *Consumer policy in the public administration system* (p. 34). Kyiv: Publishing House"Tyutyukin".
[30] Saunders, S.G., Sridharan, S., Barrington, D.J., Souter, R., Shields, K.F., Meo, S., & Bartram, J.K. (2021). Consumer marketplaces and self-sufficiency: Meeting consumption needs in community. *Journal of Consumer Affairs*, 55(4), 1691-1711. doi: 10.1111/joca.12403.
[31] Semenenko, O., Dobrovolskyi, U., Sliusarenko, M., Levchenko, I., & Mytchenko, S. (2023). Legal aspects of the cybertechnology development and the cyberweapon use in the state defence sphere: Global and Ukrainian experience. *Social and Legal Studios*, 6(4), 192-199. doi: 10.32518/sals4.2023.192.
[32] Shabalina, A.H., Korotky, O.H., Tseisler, Yu.V., Penchuk, Yu.M., & Falaleeva, T.M. (2022). *Detection of falsifications in food products*. Retrieved from https://surl.li/zvcczq.
[33] Stankova, I.M. (2021). *Civil law regulation of consumer rights protection in the sphere of services rendering*. (Doctoral thesis, National University "Odessa Law Academy", Odesa, Ukraine).
[34] Steindl, E. (2024). Consumer neuro devices within EU product safety law: Are we prepared for big tech ante portas? *Computer Law & Security Review*, 52, article number 105945. doi: 10.1016/j.clsr.2024.105945.
[35] Stole, I.L. (2015). Consumer movements, history of. In *The Wiley Blackwell encyclopedia of consumption and consumer studies*. doi: 10.1002/9781118989463.wbeccs056.
[36] Tarasenko, I.O. (2023). *European and Ukrainian practices in protecting the rights of consumers of financial services.* Retrieved from https://knutd.edu.ua/files/grants/osvitni/erasmus/3.6_navch-posibnyk_2023.pdf.
[37] Tolstonog, V. (2015). Government policy in the field of consumer protection and its relationship with national consumer policy. *Investments: Practice and Experience*, 3, 141-144.
[38] Tsurkan, O. (2023). *Falsified medicines in Ukraine as a principle of impunity, or why courts cannot bring criminal liability.* Retrieved from https://surl.li/kalrlr.
[39] Vakarieva, K. (2025). *Ukraine is flooded with fake medicines: where are they sold and why is this dangerous?* Retrieved from https://tsn.ua/exclusive/ukrayinu-zapolonili-falshivi-liki-de-yih-prodayut-i-chim-ce-nebezpechno-2765670.html.
[40] Wahlen, S., & Huttunen, K. (2012). Consumer policy and consumer empowerment: Comparing the historic development in Finland and Germany. *International Journal of Consumer Studies*, 36, 2-9. doi: 10.1111/j.1470-6431.2011.01007.x.

[41] Wood, L., & Scott, T.A. (2022). Transportation agencies as consumers and producers of science: The case of state, regional, and county transportation agencies in California, *Transport Policy*, 128, 153-165. doi: 10.1016/j.tranpol.2022.08.016.
[42] Zozulya, O. (2020). Counterfeiting of medicines: Problematic aspects and ways to solve them. *Legal Newspaper*, 13(719).
[43] Zvereva, O.V. (2007). *Consumer protection.* Retrieved from https://library.wunu.edu.ua/libsearch/DocDescription?doc_id=110763..

Стан дослідження проблематики державної споживчої політики

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Анотація
Зосередження уваги науковців різних галузей знань на проблематиці прав людини, реалізації певного виду або конкретного права в умовах національної правової системи пов'язано не лише з викликами воєнного стану в Україні, а й із загальносвітовою тенденцією зміни світоглядної парадигми від позитивістських концепцій у бік природного права. Така ситуація зумовлює необхідність переосмислення ролі людини в суспільстві, призначення механізму держави, її правоохоронних і правозахисних інституцій у забезпеченні прав людини, зокрема у сфері функціонування споживчих відносин. Мета статті полягала в тому, щоб на підставі предметного критерію схарактеризувати стан дослідженості проблематики реалізації споживчої політики держави, встановити перспективні напрями досліджень, а також висвітлити базовий методологічний інструментарій сучасних дослідників. Методологічну основу роботи сформовано відповідно до сутнісних характеристик аналізованого явища, тому в процесі написання було використано методи герменевтики, порівняння, функціональний, аналізу та прагматизму. Досліджено найвідоміші праці сучасних авторів, об'єктом наукового інтересу яких є суспільні споживчі правовідносини та функціонування споживчих ринків. Обґрунтовано висновок, згідно з яким у галузі економіко-правових знань щодо взаємодії суб'єктів правовідносин зі статусом споживача (покупця) і виробника (продавця) сформовано декілька напрямів, що становлять джерельну базу дослідження, осмислення яких дає змогу сформувати об'єктивні уявлення щодо реалізації споживчої політики держави, відмежувати її від явищ державної політики та державної споживчої політики. Аналіз правових актів Сполучених Штатів Америки, країн Європейського Союзу, міжнародних організацій з питань правового регулювання споживчих відносин надає можливість констатувати недостатню врегульованість цих відносин в Україні, заохочувати науковців і практиків до гармонійного поєднання здобутків у здійсненні спільної нормотворчої діяльності. Засвідчено неналежну якість роботи в Україні суб'єктів, уповноважених на здійснення контрольних і превентивних заходів, що стоїть на заваді своєчасному притягненню порушників до відповідальності й відшкодуванню збитків споживачеві. Констатовано, що недостатньо ефективно працюють споживчі громадські об'єднання, що має відчутні наслідки передусім на споживчому ринку лікарських препаратів і харчових продуктів

Ключові слова:
державна політика; споживча політика держави; гармонізація законодавства; консьюмеризм; споживач; надавач послуг; захист прав споживачів

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Introduction of artificial intelligence and other innovative technologies in the process of investigating criminal offences in the field of official activity

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Abstract
The purpose of the study was to analyse the Ukrainian and international experience of using artificial intelligence (AI) in the investigation of official offences and develop recommendations for adapting best practices to the Ukrainian legal system. The research methodology was based on a comparative analysis of the regulation and practice of AI implementation in Ukraine, the USA, Great Britain, Australia, and Brazil, with the examination of technological mechanisms of functioning, legal guarantees in law enforcement activities. The study established the specifics of the Ukrainian approach to the implementation of technologies through the creation of an integrated system "iCase", which provided electronic interaction between the National Anti-Corruption Bureau of Ukraine, the Specialised Anti-Corruption Prosecutor's Office, and the High Anti-Corruption Court, in contrast to the fragmented implementation in other countries. Technological solutions are systematised: machine learning for analysing large amounts of data, explanatory AI, digital forensics with nine phases of evidence processing, and blockchain analytics for tracking virtual assets. Ukrainian cases were analysed: arrest of Tether, Tron, Ethereum cryptocurrencies in Case No. 991/1512/23 of the Supreme Anti-Corruption Court, verdict in case No. 991/3227/24, risk assessment system in public procurement with 21 automatic indicators, and use of open-source intelligence techniques by the National Anti-Corruption Bureau of Ukraine. International experience has demonstrated the effectiveness of AI, in particular, in the cases of Rolls-Royce, Operation Gold Rush, the work of the European Prosecutor's Office, and the use of the Brazilian bot ALICE. Critical challenges were identified: the problem of the "black box" of algorithms, the risks of system bias, legal gaps in relation to digital assets, and the need to harmonise with the EU AI regulation 2024/1689. The results of the study can be used by anti-corruption bodies in the implementation of AI technologies, the judicial system – to form a unified practice for evaluating digital evidence, legislative authorities – in the development of special legislation on AI, and scientific-educational institutions – to train qualified personnel in the field of digital crime investigation

Keywords:
digitalisation; electronic document management; innovative investigative methods; digital evidence; cybercrime; anti-corruption bodies; illegal enrichment

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Introduction

Official crimes, especially those with a corruption component, pose a threat to national security, economic stability and citizens' trust in state institutions of Ukraine. Their hidden nature, complexity of proof, and often transnational nature require continuous improvement of investigative methods. In this context, the rapid development of artificial intelligence (AI) technologies and other innovative solutions, including machine learning, blockchain analytics, digital forensics, pattern recognition systems, big data analytics, and geographic information systems, opens up new opportunities to effectively combat these offences.

The problem of exploring the use of AI in the investigation of official crimes is due to the need to overcome the systemic limitations and inefficiency inherent in traditional methods of law enforcement. Among the key limitations are the low speed of processing large amounts of documentary information, which is manifested in the need to involve numerous experts to analyse even standard corruption schemes, and the high time costs of establishing factual circumstances that arise due to complex procedures for verifying and comparing information from different sources. This problem manifests itself in the investigation of multi-episode corruption cases, where the number of documents and, accordingly, the time for their processing increases exponentially.

In a comprehensive study of the peculiarities of applying innovative technologies in criminal analysis, M. Mordvyntsev *et al*. (2025) focus on an in-depth analysis of methodologies for using these technologies. The researchers have identified the potential capabilities of recognition systems at the stage of identification and identification of suspects, offering an innovative approach to their technical implementation, providing for an increase in the effectiveness of Investigation at the early stages of criminal proceedings in the Ukrainian reality. These results are supported by the findings of M. Lontai *et al*. (2024), who viewed AI in Forensic Sciences as a revolutionary tool for transforming investigative activities.

In the field of economic crimes, AI demonstrates qualitatively new opportunities for law enforcement activities. D. Chaikovskyi (2023) revealed the potential of AI as a new tool for combating crimes in the Ukrainian economy. The author demonstrated that AI can be used to analyse text and speech information during preventive measures and investigative actions, which is relevant for the investigation of official crimes with an economic component in the context of digitalisation of the Ukrainian economy. International experience, presented in the paper of N. Ansari (2025) on machine learning in the examination of forensic evidence, demonstrated a new era of forensic analysis, where algorithms are able to automate the processes of classifying and analysing digital traces of crimes.

The practical capabilities of AI in investigations were systematised by S. Gulyamov & S. Tatar (2023), who demonstrated: automated detection of fraud, money laundering, and financial crimes with high accuracy; processing of large amounts of multimedia data (images, videos) in real time; automation of routine tasks of data entry and analysis of evidence. Thereby, the authors identified key risks: algorithmic bias, privacy threats, and potential impact on employment in the investigative sector.

Blockchain technologies open up new prospects for tracking financial flows and determining hidden links in corruption schemes. A study by M. Karchevsky (2021) on cryptocurrencies and blockchain technologies in anti-corruption highlighted these opportunities in the Ukrainian context. The author justified the expediency of introducing blockchain technologies in the activities of Ukrainian anti-corruption bodies to increase the transparency and effectiveness of investigations. These results are consistent with the conclusions of the international study authored by D. Zinnbauer (2025) on the use of AI in the fight against corruption at the global level.

The international context for implementing AI technologies in law enforcement is described in detail by C. Rigano (2019) on the use of AI to meet the needs of criminal justice. The author analysed the US experience in the field of public safety and demonstrated specific AI capabilities: identification of individuals and their actions in video footage related to criminal activity, DNA analysis, automated gunshot detection, and crime prediction.

The legal system of Ukraine faces practical challenges in assessing the authenticity of video evidence in criminal proceedings. O. Gura (2020) established that Ukrainian courts do not have clear enough criteria for determining the reliability of digital materials, which creates legal uncertainty in cases of official offences. Judicial practice shows cases when video evidence was rejected due to the inability to confirm its originality or the lack of a proper digital data storage chain. Ethical aspects of the use of AI in Justice are studied in the training programme for judges of the Supreme Anti-Corruption Court. Y. Bernazuk (2025) determined key risks of algorithmic bias and discrimination when using AI in criminal proceedings. The problem of transparency of algorithmic solutions is closely reviewed in the study by S. Nandipati *et al*. (2024) on the role of explanatory AI in criminal investigations, which offers specific mechanisms to address the "black box" problem to ensure fair justice.

The degree of scientific development of the problem demonstrates the active formation of research areas in the field of technological modernisation of law enforcement activities. Therewith, despite a large number of studies of certain aspects of the use of technologies in law enforcement, a comprehensive analysis of the

introduction of AI and other innovative technologies in the investigation of official crimes in the Ukrainian context was practically not conducted. Most of the existing works concentrate on general issues of digitalisation of criminal justice or technical aspects of individual technologies, leaving out the specifics of their application in the field of combating corruption and official offences.

The study aimed to perform a comprehensive analysis of the introduction of AI and innovative technologies in the investigation of official crimes in Ukraine, identify the advantages and challenges of their application, and evaluate the effectiveness of existing technological solutions in the activities of Ukrainian anti-corruption bodies. The following research tasks were set to achieve the goal: examine the legal basis and technological features of the use of AI in the investigation of official crimes; analyse modern innovative technologies and the practice of their implementation in the activities of Ukrainian law enforcement agencies; develop comprehensive recommendations for further development of legislation, ethical standards, and practical application of innovative technologies.

Materials and Methods

The study was conducted in three main stages using a set of complementary scientific methods and analysis of various sources of information. During the initial stage, the legal basis for regulating official crimes and applying innovative technologies in law enforcement activities was reviewed using the comparative legal method and content analysis. The Article analyses Ukrainian legislation, in particular, the Constitution of Ukraine[1] on the principles of the rule of law and the responsibility of officials, Criminal Code of Ukraine[2] with an emphasis on Section XVII "Criminal offences in the sphere of official activity and professional activities related to the provision of Public Services", Criminal Procedure Code of Ukraine[3] with regard to articles 84, 99, 103 on digital evidence. Attention is paid to the breakdown of Law of Ukraine No. 889-VIII "On Public Service"[4] regarding the principles of integrity and responsibility of civil servants, Law of Ukraine No. 1700-VII "On Prevention of Corruption"[5] on preventive mechanisms and system of restrictions, Law of Ukraine No. 1698-VII "On the National Anti-Corruption Bureau of Ukraine"[6] regarding the authority for innovative investigative methods. The Law of Ukraine No. 794-VIII "On the State Bureau of Investigations"[7] was also analysed in terms of competence in the field of official crimes and Law of Ukraine No. 2074-IX "On Virtual Assets"[8] regarding the legal regulation of cryptocurrencies.

In the second stage, international legal acts and their implementation in Ukrainian legislation, in particular, the United Nations Convention against Corruption[9], ratified by Ukraine in 2006, the Criminal Convention on Combating Corruption[10], and the Civil Law Convention on Corruption[11], were considered. Regulation of the European Parliament and Council of the European Union No. 2024/1689 "On Artificial Intelligence"[12] with requirements for high-risk AI systems in law enforcement. The experience of the European Public Prosecutor's Office (2025) was further reviewed. Using the case method and system analysis, the judicial practice of using digital technologies in cases of official crimes is examined. Judgements in Case No. 991/1512/23[13] regarding the seizure of cryptocurrencies Tether (USDT), Tron (TRX), Ethereum (ETH) in the case under Article 368 of the Criminal Code of Ukraine[14], were also analysed.

During the third stage, a comparative legal method and institutional approach were applied to review the practice of implementing AI technologies in the UK, USA, Brazil, and Australia. In the UK, the case R v. Rolls-Royce PLC on the use of RAVN AI was considered based on the document analysis of P. Yuk (2017). The activities of the National Economic Crime Centre (2025) on the use of machine learning and reports on the activities of law enforcement agencies (UK Government, 2025) were further investigated. In Brazil, the

[1] Constitution of Ukraine. (1996, June). Retrieved from https://zakon.rada.gov.ua/laws/show/254%D0%BA/96-%D0%B2%D1%80#Text.
[2] Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.
[3] Criminal Procedural Code of Ukraine. (2012, April). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17#Text.
[4] Law of Ukraine No. 889-VIII "On Public Service". (2015, December). Retrieved from https://zakon.rada.gov.ua/laws/show/889-19#Text.
[5] Law of Ukraine No. 1700-VII "On Prevention of Corruption". (2014, October). Retrieved from https://zakon.rada.gov.ua/laws/show/1700-18.
[6] Law of Ukraine No. 1698-VII "On the National Anti-Corruption Bureau of Ukraine". (2014, October). Retrieved from https://zakon.rada.gov.ua/laws/show/1698-18.
[7] Law of Ukraine No. 794-VIII "On the State Bureau of Investigations". (2015, November). Retrieved from https://zakon.rada.gov.ua/laws/show/794-19#Text.
[8] Law of Ukraine No. 2074-IX "On Virtual Assets". (2022, February). Retrieved from https://zakon.rada.gov.ua/laws/show/2074-20#Text.
[9] United Nations Convention Against Corruption. (2003, October). Retrieved from https://www.unodc.org/documents/brussels/UN_Convention_Against_Corruption.pdf.
[10] Criminal Convention on Combating Corruption. (1999, January). Retrieved from https://rm.coe.int/168007f3f5.
[11] Civil Law Convention on Corruption. (1999, November). Retrieved from https://rm.coe.int/168007f3f6.
[12] Regulation of the European Parliament and Council of the European Union No. 2024/1689 "On Artificial Intelligence". (2024, June). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L_202401689.
[13] Judgement of the High Anti-Corruption Court of Ukraine in Case No. 991/1512/23. (2023, June). Retrieved from https://reyestr.court.gov.ua/Review/111590400.
[14] Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.

Law of Brazil No. 12.846 "On Combating Corruption"[1] was considered as a legal basis for the use of technologies in the fight against corruption, technical documentation of the Governance Risk Assessment System (GRAS) for detecting corruption in public procurement (World Bank, 2023). Australia reviewed the activities of the National Economic Crime Centre (2025), which implemented the "Frontier" system for proactive identification of corruption risks in the public sector (Independent Commission against Corruption, 2018). The methodological approach of the study also provided for the development of practical recommendations for improving legal regulation.

Results

Legal basis and classification of official crimes in Ukraine. The investigation of official crimes in Ukraine is a complex legal process based on the fundamental provisions of the Criminal Code of Ukraine[2], in particular, section XVII "Criminal offences in the sphere of official activity and professional activity related to the provision of public services". This section forms the legal basis for countering corruption and official abuse, providing for responsibility for a wide range of acts that undermine the effective and virtuous functioning of the state apparatus and the system of public services. The systematic approach to criminal legal qualification of official crimes reflects the complexity of the problem of corruption in Ukrainian society and the need to use differentiated mechanisms of legal influence. A special feature of the Ukrainian criminal legislation in the field of official crimes is the detailed regulation of various forms of corruption behaviour, which allows law enforcement agencies to apply a differentiated approach to the qualification and investigation of crimes, depending on their specifics. Key articles of the criminal legislation cover the full range of possible official offences, from active forms of abuse of power to passive negligence in the performance of official duties. Table 1 is given to unify the material.

Table 1. Key articles of official crimes under the Criminal Code of Ukraine

Article of the Criminal Code of Ukraine	Name of the crime	The essence of the act
364	Abuse of power or official position	Use of power contrary to the interests of the service
364-1	Abuse of authority (private legal entities)	Abuse in private legal entities
365	Abuse of power by a law enforcement officer	Actions outside the granted authority
366	Official forgery	Entering false information in documents
366-2	Declaring false information	Providing false information in the declaration
367	Official negligence	Improper performance of official duties
368	Obtaining illegal benefits	Bribery by an official
368-5	Illegal enrichment	Acquisition of assets without legal grounds
369	Providing illegal benefits	Offering a bribe to an official

Source: compiled by the author according to the Criminal Code of Ukraine[3]

Corruption acts, such as acceptance of an offer, promise, or receipt of an illegal benefit by an official (Article 368 of the Criminal Code of Ukraine), cover the receipt by an official of an unlawful benefit for themselves or a third person for committing or not committing any action using his or her official position. Illegal enrichment, according to Article 368-5 of the Criminal Code of Ukraine, is defined as the acquisition by an official of assets whose value exceeds his legal income by more than three thousand subsistence minimums for able-bodied persons. Article 369 of the Criminal Code of Ukraine concerns the offer, promise, or provision of undue benefits to an official for committing actions using their official position. These articles create a comprehensive system of criminal and legal counteraction to corruption, covering both active and passive forms of corruption behaviour. The legislative approach to regulating official crimes reflects international standards of anti-corruption policy and accounts for the specifics of the functioning of the Ukrainian state apparatus. Proof of official crimes is often complicated by their latent nature, the presence of complex schemes, and the use of official position to conceal traces, in addition to large volumes of documentation and financial transactions, which requires law enforcement agencies to use special investigative methods and analytical approaches.

The variety of elements of crimes provided for in Section XVII Criminal Code of Ukraine determines the need for law enforcement agencies to apply a wide range of investigative methods and use modern technological solutions. Each Article provides for different objects of criminal encroachment, forms of guilt, and methods of commission, which require a differentiated approach to collecting and evaluating the evidence base. Official forgery requires a detailed analysis of documents and handwriting examinations, while

[1] Law of Brazil No. 12.846 "On Combating Corruption". (2013, August). Retrieved from https://www.planalto.gov.br/ccivil_03/_ato2011-2014/2013/lei/l12846.htm.
[2] Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.
[3] Ibidem, 2001.

illegal enrichment requires a deep investigation of financial flows and property declarations using financial analysis methods. AI systems that are implemented to investigate official crimes cannot be universal "boxed" solutions due to the specifics of each type of offence. They should be modular and adaptive, capable of processing various types of data, from text documents and financial transactions to communication records and video materials. This means using specific algorithms to identify patterns specific to each type of crime that affect the foundations of AI systems, the requirements for their development and training.

The Criminal Code of Ukraine defines the main elements of official crimes and establishes criminal sanctions for their commission, but it is not the only regulatory legal act in this area. The comprehensive system of countering official offences includes special laws on Civil Service and Prevention of corruption, bylaws of anti-corruption bodies, and international conventions and standards. Without considering these additional legal sources, the picture of regulating official crimes would be incomplete since they establish preventive mechanisms, procedural aspects, and institutional bases for combating corruption. It is advisable to address the main thematic blocks of normative legal acts and their functional purpose in the investigation process to systematise the legal regulation of official crimes in Ukraine, which are shown in Table 2.

Table 2. Legal basis for regulating official crimes in Ukraine

Theme block	Regulatory act	Key provisions	Importance for the investigation of official crimes
Principles of public service	Law of Ukraine No. 889-VIII	Rule of law, legality, professionalism, integrity, political impartiality	Creates an ethical basis for distinguishing legitimate official activities from official crimes
Preventive mechanisms	Law of Ukraine No. 1700-VII	Declaration of property and income; settlement of conflicts of interest; system of restrictions and prohibitions	Provides early detection of corruption risks and creates an evidence base for investigating illicit enrichment
Disciplinary responsibility	Law of Ukraine No. 889-VIII	Remark, reprimand, warning about incomplete official compliance, dismissal from office	The graded system of penalties allows you to differentiate liability depending on the severity of violations
Financial liability	Law of Ukraine No. 889-VIII	Right of recourse of the state for intentional damage	Creates an additional deterrent and mechanism for compensation of losses from official crimes
Institutional arrangements	Bylaws of the National Agency for the Prevention of Corruption	Methodological recommendations on conflicts of Interest; Code of Ethical Conduct; system of explanations	Provide a unified interpretation of anti-corruption norms and practical tools for law enforcement
International standards	United Nations Convention against Corruption; Criminal Convention on Combating Corruption; Civil Law Convention on Corruption	Global standards for criminalisation of corruption acts; harmonisation with European standards; protection of whistleblowers	Create common international approaches to combating corruption and provide the basis for international legal assistance
Monitoring and control	Participation in GRECO (since 2006)	Regular international monitoring of the anti-corruption system	Provides an external assessment of the effectiveness of the anti-corruption system and recommendations for improvement
Special conditions	Explanation of the National Agency for the Prevention of Corruption on martial law	Simplified declaration procedures for military personnel while maintaining the main mechanisms	Adapt anti-corruption mechanisms to special conditions without losing the effectiveness of control

Source: compiled by the author based on Law of Ukraine No. 889-VIII[1], Law of Ukraine No. 1700-VII[2], United Nations Convention against Corruption[3], Criminal Convention on Combating Corruption[4], Civil Law Convention on Corruption[5], Code of Ethical Conduct for Employees of the National Agency for Corruption Prevention[6]

The analysis of the presented legal framework indicates a multi-level system of regulation of official crimes in Ukraine, covering preventive, repressive, and restorative mechanisms. Civil service and corruption prevention laws play a central role, providing a legal basis for distinguishing between lawful and illegal official behaviour. International standards ensure the harmonisation of the Ukrainian anti-corruption system with European requirements, while departmental acts of the National Agency for the Prevention of Corruption detail practical aspects of law enforcement. The system is characterised by a comprehensive approach – from

[1] Law of Ukraine No. 889-VIII "On Public Service". (2015, December). Retrieved from https://zakon.rada.gov.ua/laws/show/889-19#Text.
[2] Law of Ukraine No. 1700-VII "On Prevention of Corruption". (2014). Retrieved from https://zakon.rada.gov.ua/laws/show/1700-18.
[3] United Nations Convention against Corruption. (2003, October). Retrieved from https://www.unodc.org/documents/brussels/UN_Convention_Against_Corruption.pdf.
[4] Criminal Convention on Combating Corruption. (1999, January). Retrieved from https://rm.coe.int/168007f3f5.
[5] Civil Law Convention on Corruption. (1999, November). Retrieved from https://rm.coe.int/168007f3f6.
[6] Code of Ethical Conduct for Employees of the National Agency for Corruption Prevention. (2019, May). Retrieved from https://nazk.gov.ua/uk/documents/rishennya-vid-17-05-2019-1382-pro-zatverdzhennya-kodeksu-etychnoyi-povedinky-pratsivnykiv-natsionalnogo-agentstva-z-pytan-zapobigannya-koruptsiyi/.

ethical principles of public service to specific monitoring and control procedures, which enable effective counteraction against various forms of official offences. The analysis of the legal basis for the investigation of official crimes in Ukraine shows the complexity and multidimensional nature of this issue, which requires an integrated approach to countering corruption manifestations. The criminal legislation of Ukraine in the field of official crimes is characterised by sufficient detail and coverage of a wide range of corruption acts, which meets international standards of anti-corruption policy. However, the effectiveness of law enforcement largely depends on the quality of the investigation, which is complicated by the latent nature of official crimes and the need to process large amounts of diverse information. The introduction of AI technologies in the process of investigating official crimes should address the specifics of each type of offence and require the creation of specialised modular systems.

Innovative technologies and their application in criminal investigations. The use of AI and machine learning to analyse large amounts of data, recognise patterns, predict crimes, and detect anomalies is one of the most promising areas of modern criminal investigation. AI and machine learning algorithms are capable of processing and interpreting large amounts of data, which is important for solving complex criminal schemes (Ansari, 2025). AI can be used to analyse text and speech information during preventive measures and investigative actions (Chaikovskyi, 2023). In Computer Forensics, machine learning algorithms make it much easier to classify digital files and prioritise them for further investigation by analysing metadata, which increases the speed and efficiency of analysing large amounts of digital evidence. AI is also used in the field of public safety for video and image analysis, DNA analysis, shot detection, and crime prediction (Rigano, 2019). These systems are able to overcome human errors, learn complex tasks, and even develop their own complex facial recognition parameters that go beyond what humans can see.

The role of explanatory AI in ensuring transparency and accountability is becoming a priority in the context of criminal justice. The "black box" nature of many AI models creates challenges for accountability and justice in criminal justice. Explanatory AI acts as a critical response to these problems, with the goal of making the initial data of AI systems understandable to humans, thereby providing interpreted conclusions and increasing trust (Nandipati *et al*., 2024). As emphasised by Y. Bernazuk (2025), in the training programme for judges of the High Anti-Corruption Court, opacity, the inability to explain AI decisions, and the risks of bias are key features of the "black box" that create legal and ethical challenges in areas where motivation is needed, such as justice.

Digital forensics, or forensic science, is the applied science of investigating computer-related crimes that focuses on finding, obtaining, storing, analysing, and presenting digital evidence. This industry has evolved significantly with the advent of cybercrime and the development of sophisticated digital investigation models. The digital forensics process includes several steps that must be carefully followed in order for digital evidence to be acceptable in court. A detailed structure of these steps and related tools is presented in Table 3.

Table 3. Digital forensics phases and typical tools

Phase	Description	Key actions / Methods	Typical tools
Identification	Identify and localise potential digital evidence	Search and recognition of evidence; documentation of the storage location	Inspection protocols, scene diagrams, photo recording
Saving	Protecting the integrity of detected data from changes or corruption	Isolation, security, and storage of data; creation of forensic duplicates (images)	FTK Imager (for creating images)
Collecting evidence	Extracting data from devices in compliance with forensic standards	Collecting data from deleted devices using specific methods	The Sleuth Kit
Security of evidence	Providing a controlled and secure environment for storing evidence	Access to a secure environment; ensuring accuracy, authenticity, and accessibility	Specialised repositories, access control systems, accounting logs
Getting data	Seizure of electronically stored information from suspected digital assets	Extraction of electronically stored information; ensuring data integrity when receiving data	FTK Imager
Analysis	Reconstruction and interpretation of digital data to identify relevant information	Data analysis, identification, separation, transformation and modelling; metadata analysis; recovery of deleted files	Sleuth Kit, Xplico (for network analysis), specialised tools for analysing files and registries
Evaluation of evidence	Correlation of the identified data with the circumstances of the case and their legal assessment	Careful assessment of the compliance of data with the scope of the case	Analytical software, case databases
Documentation and reporting	Create a detailed record of all Investigation steps and conclusions	Record all data; prepare an official report for the court	Document management systems, report templates, electronic signature tools
Presentation	Presentation of collected and analysed evidence in court	Generalisation of conclusions and their presentation	Presentation software, data visualisation tools, multimedia equipment

Source: compiled by the author based on open analytical sources (Cyber Writes Team, 2023; What is digital forensics..., 2024)

The emphasis on careful multiphase processes and specialised tools for digital forensics shows that the integrity and chain of digital evidence storage is paramount. Unlike physical evidence, digital evidence has the property of instability and is subject to alteration without leaving visible traces of interference. The legal system's reliance on digital evidence means that any failure in these forensic processes or failure to authenticate evidence can lead to their inadmissibility, effectively undermining the entire investigation. This is important in office crime cases, where digital footprints are often central. This requires continuous training for lawyers and a solid legal framework for regulating digital evidence, as highlighted by the Supreme Court in cases on the authenticity of video evidence (Gura, 2020). The transition from the "investigative type" to the "adversarial" criminal process further increases the importance of irrefutable digital evidence.

Big data analysis platforms allow law enforcement agencies to process and analyse huge amounts of data from various sources to identify suspicious indicators, patterns, correlations, and trends. This is crucial for proactive policing, identifying criminal trends, preventing threats, and solving complex cases. In particular, big data analytics can identify crime trends by analysing historical crime data to identify "hot spots" and predict the locations and times of likely crimes, enabling proactive allocation of resources, reducing response times, and deterring criminal activity. Real-time data analytics help law enforcement agencies to monitor and respond immediately to emerging threats, for example, by analysing social media feeds during public events (The power of big…, 2025). By integrating data from a variety of sources, these platforms help investigators pinpoint patterns, unusual actions, and hidden connections in cases of identity theft, financial fraud, organised crime, and cybercrime.

The ability of Big Data analysts to predict crime hotspots and identify emerging threats demonstrates a fundamental shift from a purely reactive investigation model to a more proactive and preventive approach. For official offences, this means moving from investigating after exposing a corruption scheme to potentially identifying risks or early indicators of corruption before damage is done. This allows for more efficient allocation of limited resources and potentially deters criminal activity by increasing the likelihood of detection. This shift, while promising to improve efficiency and prevention, raises considerable ethical and privacy concerns about potential over-surveillance, algorithmic bias in targeting, and the erosion of civil liberties, which must be carefully balanced with public safety goals, as in the Council on Criminal Justice (2025) report. The success of this approach depends on the quality and representativeness of the data.

Blockchain forensics involves the use of specialised tools and procedures to extract and analyse data from the blockchain, including transactions, addresses, and other data, along with the search for and tracking of individuals and groups involved in illegal activities. These methods are used to investigate financial crimes such as fraud, money laundering, and terrorist financing (Merkle Science, 2025). Methods include address clustering (grouping addresses controlled by a single entity), transaction tracking (tracking the flow of digital assets from origin to destination), and linking to off-network data (such as IP addresses, social media profiles) to create a complete profile of individuals. Despite the transparency of the registry, the pseudo-anonymous nature of cryptocurrency addresses, the lack of a central authority, and the use of mixing services create substantial problems for investigators. Transactions of bitcoin and other virtual currencies are publicly recorded in online blockchain registries, identifying users only by their cryptocurrency address-a long string of letters and numbers – without names, locations, or other personal identification data. The main paradox of the blockchain in criminal investigations is its internal transparency (all transactions are recorded in the public register), combined with the pseudo-anonymity of addresses (no direct connection with personal identification). Although the registry is open, linking a cryptographic address to a real person requires complex "de-anonymisation" techniques and often depends on "off-network data" or collaboration with exchanges.

The proliferation of smart devices and Internet of Things (IoT) technologies creates fundamentally new opportunities for collecting digital evidence in cases of official offences. Smartphones, smartwatches, Global Positioning System (GPS navigation) systems, and other connected devices generate metadata about location, time, and behavioural patterns (U.S. General Services Administration, 2025). Modern cars equipped with advanced telematics systems record almost all driver actions, preserving turn-by-turn navigation, speed, acceleration and detailed data on turning on headlights, opening doors, and fastening seat belts. The most documented case involving the use of GPS tracking in the investigation of official offences is the case of Cunningham v. State Dep't of Labor[1], where Michael Cunningham, director of the New York State Department of Labour, was accused of falsifying timesheets. Investigators installed a GPS device on the employee's personal BMW without a warrant and tracked his movements for a month, finding notable discrepancies between the stated working hours and the actual location. In the

[1] Justia Opinion Summary of the Court of Appeals of NY in Case "Cunningham v. State Dep't of Labor". (2013, June). Retrieved from https://law.justia.com/cases/new-york/court-of-appeals/2013/123.html.

Michigan theft case, police established a link between the perpetrator and the stolen car due to GPS data, door opening records, and mobile phone connections (Solon, 2020). An audit by the North Carolina Department of Motor Vehicles (2017-2020) found systemic abuse of official vehicles totalling more than USD 100,000, including a DMV inspector who made unauthorised commutes worth USD 85,000 over three years, leading to the installation of telematics systems throughout the state fleet (Wood, 2017).

Smart home devices store recordings of voice commands that can be requested by law enforcement agencies under a court order. In a criminal case in Arkansas, prosecutors tried to obtain recordings from an Amazon Echo for a murder investigation (Chin, 2025). A study by O. Trebilcock (2020) shows that these devices can accidentally activate and record conversations even without pronouncing the "activator word". Behavioural biometrics analyses typing patterns and the use of the mouse to identify users even when using other people's accounts, which is important for detecting unauthorised access to confidential information. The United States Government Accountability Office (2020) report documents 100 confirmed cases of time-tracking violations at 24 federal agencies from 2015 to 2019, detected using IoT systems, including access card login systems, video surveillance, and GPS data from government devices.

Drone technologies allow detecting official offences through quality control of materials, when the aerial survey records the use of low-quality or cheaper materials instead of those stated in the tender documentation, which, when compared with the technical specifications, establishes the fact of deception and obtaining illegal benefits by the contractor with the assistance of corrupt officials. The most common types of reports forged in the construction industry include material quality reports (drones with high-resolution cameras can verify the materials actually used), work progress reports (timestamped videos document the real progress of construction), safety compliance reports (aerial monitoring can detect non-compliance with safety standards), and environmental assessments (aerial surveillance can detect unauthorised environmental violations). The U.S. Occupational Safety and Health Administration has introduced protocols for the use of unmanned systems for construction site inspections (Galassi, 2018), and the GSA Inspector General issued a 2023 warning against the use of prohibited drones to photograph construction sites in the port of San Luis, Arizona[1]. Monitoring of the work schedule through the timestamps of drone images, combined with document analysis, reveals systematic forgery of construction progress reports, when drones record the absence of work on the site, but official reports on the progress of work, reports on the completion of construction stages, and reports on the use of materials claim the opposite, indicating official forgery of documents.

Monitoring of social networks is already actively used to identify official offences through the analysis of inconsistencies in the lifestyle of officials with their documented income. In Ukraine, the National Agency on Corruption Prevention (2025) performs "lifestyle monitoring" of public figures. According to the results of such monitoring, the National Agency on Corruption Prevention (2024) revealed signs of acquisition of unjustified assets in the amount of UAH 4.85 million by the former acting head of the Kharkiv Centre for Recruitment and Social Support. The National Agency for the Prevention of Corruption also monitors disinformation campaigns on social networks, analysing more than 109 thousand messages on Telegram, Facebook, and X/Twitter. Specific ways to spot misconduct on social media include documenting bribery when Instagram photos and Facebook posts show a luxurious lifestyle that doesn't match an official's official income, suggesting they're getting illegal benefits from contractors or other interested parties. In case of official negligence, social networks can record the presence of a civil servant in places where they should not be during working hours, or document their activities that contradict the performance of professional duties, for example, photos from entertainment events during critical situations that required their personal control.

The legal basis for the use of digital evidence in Ukraine is regulated by the Criminal Procedure Code of Ukraine[2], specifically, articles 84, 99, 103. Ukraine has signed the Budapest Convention on Cybercrime, which creates an international legal framework for cooperation in the field of digital investigations. Recent legislative initiatives pose risks of political interference in law enforcement activities. The integration of AI and innovative technologies in the investigation of official offences opens up new opportunities for fighting corruption, but requires careful legal regulation and the development of mechanisms to protect citizens' rights.

Cases and prospects of using innovative technologies in the investigation of official crimes in Ukraine. The legal basis for the use of digital technologies in pre-trial investigations is laid down in Law of Ukraine No. 1698-VII[3], which defines the powers

[1] Alert Memorandum: PBS Allowed the Use of a Drone from a Prohibited Source to Photograph Construction at a Land Port of Entry in San Luis, Arizona. (2025, March). Retrieved from https://www.gsaig.gov/sites/default/files/audit-reports/A220036-5%20Alert%20Memorandum.pdf.

[2] Criminal Procedural Code of Ukraine. (2012, April). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17#Text.

[3] Law of Ukraine No. 1698-VII "On the National Anti-Corruption Bureau of Ukraine". (2014, October). Retrieved from https://zakon.rada.gov.ua/laws/show/1698-18.

of the National Anti-Corruption Bureau of Ukraine to apply innovative investigative methods. Similar powers of the State Bureau of Investigation are regulated by Law of Ukraine No. 794-VIII[1]. The use of OSINT methods (intelligence from open sources) in criminal proceedings is based on the general principles of collecting evidence, enshrined in articles 93, 99 of the Criminal Procedure Code of Ukraine[2], which allow the use of information from open sources as an evidence base, provided that the requirements for the admissibility of evidence are met. The National Anti-Corruption Bureau (2021) actively implements innovations in pre-trial investigation, including the translation of criminal proceedings into electronic format, the use of procedural interview methods, and standardisation of pre-trial investigation.

One of the most important initiatives is the "iCase" pre-trial investigation information and telecommunications system. The legal basis for the functioning of the "iCase" system is established by Article 106-1 of the Criminal Procedure Code of Ukraine and Order of the National Anti-Corruption Bureau of Ukraine No. 175/390/57/72 "On the Information and Telecommunications System for Pre-Trial Investigation "iCase"[3]. The detailed procedure for the functioning of the system is defined by the regulation on the information and telecommunications system of pre-trial investigation "iCase". This system, developed with the support of the EU Anti-Corruption Initiative, optimises the pre-trial investigation of anti-corruption bodies, is integrated with the Unified Register of pre-trial investigations and judicial systems, allowing the National Anti-Corruption Bureau of Ukraine, the Specialised Anti-Corruption Prosecutor's office, and the High Anti-Corruption Court to interact online. "iCase" reduces time, optimises resource usage, and promotes effective digital adoption in Justice (National Anti-Corruption Bureau, 2025).

The State Bureau of Investigation (2025) demonstrates the practical application of digital technologies through the active seizure of documents and electronic media as evidence of illegal operations, which confirms the effectiveness of using digital traces in cases of official crimes. For example, in the case of embezzlement of state property by the heads of Ukrproftur and the Federation of Trade Unions, the state Bureau of Investigation seized electronic information carriers confirming fictitious real estate purchase and sale agreements.

Ukrainian judicial practice is already facing criminal proceedings related to the use of cryptocurrencies and other innovative technologies in the field of official offences, which demonstrates both new opportunities for criminals and new challenges for law enforcement agencies in the use of AI and digital technologies for investigation. This suggests that while operational efficiency is improved by the introduction of AI and digital tools in the investigation of official offences, the deep legal certainty and consistency required for a full-fledged digital criminal justice system using AI technologies are still under development, the lack of a clear legal status of virtual assets and regulation of the use of AI creates gaps and difficulties for investigators and prosecutors in the use of innovative technologies, potentially hindering asset recovery and successful sentences in cases of official offences involving new digital forms of illegal profits. This highlights the urgent need for comprehensive legislative reform that addresses the unique characteristics of digital evidence, virtual assets, and AI's ability to counter official crimes.

The use of AI in these criminal proceedings was conducted through the use of a specialised blockchain-analytical platform Chainalysis Reactor, which operates on the basis of machine learning algorithms for automated cluster analysis of cryptocurrency addresses, deterministic tracking of transaction chains and identification of abnormal patterns of movement of digital assets (Internal Revenue Service, 2023). Technical implementation includes the use of heuristic algorithms to group addresses of a single owner, assign risk scores through multi-layered neural networks, and automatically deanonymise pseudonymous blockchain operations. Ukrainian detectives of the National Anti-Corruption Bureau of Ukraine, prosecutors of the Specialised Anti-Corruption Prosecutor's office, and other law enforcement agencies have received certified training in cryptocurrency forensic science within the framework of the programme of international cooperation with the Criminal Investigation Department of the US Internal Revenue Service, which ensured professional competence in applying these technological solutions in pre-trial investigations. The practice of the Supreme Anti-Corruption Court regarding the seizure of virtual assets in cases of official crimes is of major scientific interest, particularly the case when the court granted the prosecutor's request for the arrest of USDT, TRX, ETH belonging to a suspect and located in a multi-currency crypto wallet, criminal proceedings were conducted under Part 4 of Article 368 of the Criminal Code of Ukraine[4], the sanction of which provides for a mandatory additional penalty in the form of confiscation of property. The

[1] Law of Ukraine No. 794-VIII "On the State Bureau of Investigations". (2015, November). Retrieved from https://zakon.rada.gov.ua/laws/show/794-19#Text.
[2] Criminal Procedural Code of Ukraine. (2012, April). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17#Text.
[3] Order of the National Anti-Corruption Bureau of Ukraine No. 175/390/57/72 "On the Information and Telecommunications System for Pre-Trial Investigation "iCase". (2021, December). Retrieved from https://zakon.rada.gov.ua/laws/show/v0390886-21#Text.
[4] Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.

court considered sufficient grounds to believe that virtual assets belong to the suspect and are the subject of possible confiscation of property as a form of punishment, the use of seizure of virtual assets complies with the principle of reasonableness and does not create negative consequences for third parties, and the degree of interference with the rights of the suspect is proportionate to the task of criminal proceedings and justifies the needs of pre-trial Investigation[1]. In Judgment in Case No. 991/3227/24[2], the accused – a people's deputy of Ukraine – offered and transferred illegal benefits in the form of cryptocurrency (0.39 BTC, equivalent to ≈10036 USD) to an official for assistance in allocating budget funds. The court found him guilty under Part 4 of Article 369 of the Criminal Code of Ukraine, sentenced him to 8 years in prison, confiscation of all property, and deprivation of the right to hold public office for 3 years. In addition, the court applied a special confiscation of cryptocurrency and the hardware wallet "LedgerNano S Plus" as physical evidence.

The criminal proceedings against Yuriy Shchyhol, former head of the State Service for Special Communications and Information Protection of Ukraine, set a precedent for Ukrainian law enforcement practice. On 30 November 2023, the High Anti-Corruption Court issued a ruling to seize crypto assets with a total value of USD 1,476,963, including USDT 1,201,285, BTC 6.9, and TRX 331 (The court seized…, 2023). Identification and quantification of these virtual assets became possible as a result of the use of the cryptanalytic platform Chainalysis Reactor, which was accessed by Ukrainian law enforcement agencies in the framework of bilateral cooperation with the Criminal Investigation Department of the US Internal Revenue Service. The technological process included automated analysis of blockchain transaction graphs, the use of heuristic algorithms for address clustering, and machine learning to detect attempts to obfuscate financial flows.

The Supreme Anti-Corruption Court is increasingly considering cases where the evidence base includes analysis of blockchain data. The National Anti-Corruption Bureau of Ukraine, under the procedural guidance of prosecutors of the Specialised Anti-Corruption Prosecutor's office, actively investigates corruption crimes using virtual assets, and the relevant materials are submitted to the court. The National Anti-Corruption Bureau of Ukraine systematically trains its detectives in methods of investigating crimes with cryptocurrencies and reports on cases related to bribes or false declarations of digital assets.

One of the most promising initiatives is a joint project of the Ministry of Digital Transformation and the EU Anti-Corruption Initiative in Ukraine. A special IT module was developed to monitor the Prozorro Portal that uses 21 automatic risk indicators to detect potentially corrupt purchases (EU Anti-Corruption Initiative, 2025). The algorithm-based system analyses purchases and signals anomalies, which helps regulatory and law enforcement agencies focus on the most suspicious tenders. This experience demonstrates Ukraine's gradual integration into global trends in the use of AI in criminal proceedings, going beyond the simple digitalisation of document flow. The legal regulation of the use of AI in Ukraine is characterised by considerable gaps. According to lawyer A. Klyan (2022), Ukrainian legislation does not contain a legal definition of AI, and liability for its misuse is not regulated. The main programme document in this area remains the concept of AI development in Ukraine, approved by Resolution of the Cabinet of Ministers of Ukraine No. 1556-r "On Approval of the Concept for the Development of Artificial Intelligence in Ukraine"[3]. The document defines the absence or imperfection of legal regulation of AI as one of the key problems that need to be solved. K. Tokarieva & N. Savliva (2021) note that AI activities are not regulated by Ukrainian legal acts. This situation creates legal uncertainty about the use of AI technologies in law enforcement and legal proceedings.

However, court cases involving cryptocurrencies and video evidence reveal fundamental legal challenges in adapting existing rules of evidence to innovative technologies for investigating official offences (for example, the definition of "physical evidence", the originality of digital files, the use of AI to analyse evidence), to the unique nature of digital and virtual assets. Courts are forced to interpret traditional laws in new contexts of AI and blockchain analytics applications, which sometimes lead to inconsistent decisions or rely on broad interpretations to ensure confiscation (Gura, 2020). The Ukrainian experience demonstrates pragmatic, step-by-step digitalisation of criminal proceedings with the introduction of AI elements and innovative technologies in the investigation of official offences, while using OSINT methods and analytical tools for detecting official crimes.

International experience in using AI in the fight against official crimes. International experience demonstrates effective solutions along with systemic restrictions on the introduction of AI and innovative technologies in the fight against crime, in particular, official offences. Law enforcement agen-

[1] Judgement of the High Anti-Corruption Court of Ukraine in Case No. 991/1512/23. (2023, June). Retrieved from https://reyestr.court.gov.ua/Review/111590400.
[2] Judgment of the Appeal Chamber of the High Anti-Corruption Court in Case No. 991/3227/24. (2024, December). Retrieved from https://opendatabot.ua/court/124014613-06c66175453c19e31fcf50d87ff6e93a.
[3] Resolution of the Cabinet of Ministers of Ukraine No. 1556-r "On Approval of the Concept for the Development of Artificial Intelligence in Ukraine". (2020, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1556-2020-%D1%80#Text.

cies in the world's leading countries are actively implementing AI to investigate corruption and financial crimes, achieving concrete results.

The Rolls-Royce PLC case was the first AI-based criminal case precedent in the world, where the UK's Serious Fraud Office (SFO) used the RAVN Applied Cognitive Engine system to analyse 30 million documents 2,000 times faster than human lawyers, resulting in a GBP 671 million settlement for bribery in seven countries (Yuk, 2017). In 2025, the U.S. Department of Justice conducted Operation Gold Rush, the largest medical fraud case in history at USD 10.6 billion, using data analytics to charge 324 people and prevent USD 4.41 billion in fraudulent Medicare payments (UK Government, 2025).

The U.S. Securities and Exchange Commission (SEC) also demonstrates the successful application of AI through the Electronic Data Processing (EPS) initiative, which uses machine learning algorithms to automatically detect potential accounting and disclosure violations in public companies' financial statements (Gratton, 2024). This system analyses large amounts of financial data and identifies anomalies that indicate manipulation of reports or concealment of information from investors. In particular, the system detects anomalies in the distribution of digits (for example, an insufficient share of the digit "4" in the data), indicates deliberate rounding of indicators to achieve the target values of earnings per share. For example, in the case of Gentex Corporation (2023), SEC algorithms discovered manipulations with employee bonuses that allowed the company to artificially lower costs and raise EPS, which led to the imposition of a fine of USD 4 million (Silver Law Group, 2023). The European Public Prosecutor's office (2025) uses digital technology in 2,700+ active investigations, freeing EUR 849 million of assets, and the UK's National Crime Agency has identified 10,700+ previously unknown accounts using machine learning. The National Economic Crime Centre (2025) in Australia has launched the "Frontier" system for proactive detection of corruption.

Despite the benefits, international experience also highlights the risks and challenges of AI, including generating fabricated information and algorithmic bias. In the UK, there have been cases where lawyers have filed "completely fictitious references to court cases" generated by AI. This led to contempt of court charges, fines, and referrals to regulatory authorities. These incidents highlight the serious consequences of AI "hallucinations" and the need for human verification of AI-generated results (Fake cases, real..., 2025).

A positive example of the systematic implementation of AI in the fight against corruption is demonstrated by Brazil through GRAS, developed within the framework of Law of Brazil No. 12.846 "On Combating Corruption"[1]. GRAS uses an AI-based bot called ALICE to automatically analyse public procurement and identify corruption risks in the public sector (World Bank, 2023). The system analysed 190,923 public procurement procedures and identified more than 850 suppliers with signs of collusion, unfair competition, and other corrupt practices. The key achievement was a radical reduction in audit time – from more than 400 days to 8 days, due to automated analysis of contracts, supplier history, price anomalies, and patterns of bidders' behaviour. ALICE uses machine learning algorithms to detect atypical price fluctuations, suspicious relationships between bidders, repeated winning patterns of the same suppliers, and anomalies in technical specifications that may indicate that tenders are tailored to a specific bidder. In turn, the Brazilian experience outlined the challenges of adapting AI systems to the specifics of the local legal environment, regional features of procurement, and the need for constant updating of algorithms to identify new corruption schemes that evolve in response to increased control. The role of the prosecutor in the procedural management of the investigation of official crimes using innovative technologies is of particular importance in the context of adapting international practices. O. Amelin (2024) systematised the international experience of the United States, Brazil, Bulgaria, and Hungary regarding the specifics of the prosecutor's procedural guidance in the investigation of official crimes. The author determined that the Brazilian AI-ACT system provides automation of monitoring of public procurement and audit of public expenditures, which drastically increases the transparency and effectiveness of procedural guidance by prosecutors of anti-corruption investigations. In addition, the study identified critical challenges of implementing such technologies, manifested in the insufficient training of personnel to work with automated systems and the risk of "information overload" due to large amounts of data, which can lead to ignoring critical signals.

For Ukraine, these international risks are becoming more relevant in the context of reforming the judicial system and the institutional fight against corruption. The problem of the "black box" can undermine public confidence in the newly created anti-corruption bodies, algorithmic bias can lead to discrimination in conditions of political instability, and mass surveillance – pose threats to the formation of democratic institutions. A summary of international experience in using AI and data analytics in the fight against official crimes is presented in Table 4, which systematises the most revealing cases by jurisdiction, type of technology application, and results obtained.

[1] Law of Brazil No. 12.846 "On Combating Corruption". (2013, August). Retrieved from https://www.planalto.gov.br/ccivil_03/_ato2011-2014/2013/lei/l12846.htm.

Table 4. International cases of using technologies in the investigation of official crimes

Jurisdiction/organisation	Case type	Technology used	Challenges/risks	Outcome
United Kingdom (SFO)	Rolls-Royce PLC case	AI robot (RAVN) for Document Analysis	Need to verify AI results	Save 80% of expenses; work 2,000 times faster than human lawyers; GBP 671 million settlement
United Kingdom	Submission of "fake" court precedents	Generative AI	AI hallucinations, loss of trust in justice	Contempt of court charges, fines; highlighting the risks of AI "hallucinations"
USA (SEC)	Detection of accounting violations and disclosure of information	AI (EPS initiative)	Possible false positives	Successful identification of potential violations; demonstration of AI capabilities in financial supervision
USA (DOJ)	Operation Gold Rush	Data analytics	Dependence on the quality of source data	USD 10.6 billion case; charges 324 people; prevention of USD 4.41 billion fraudulent payments
European Prosecutor's Office	Cross-border investigations of financial crimes	Digital technologies and data analytics	Coordination between jurisdictions, different legal systems	2,700+ active investigations; EUR 849 million of frozen assets
Brazil (GRAS)	Detection of corruption in the public sector	AI for analysing public data (ALICE bot)	The need to adapt to local conditions	Identification of 850 + suppliers with signs of collusion; reduction of audits from 400 + days to 8 days; analysis of 190,923 procurement procedures
Australia (National Economic Crime Centre)	Proactive detection of corruption	Frontier System	Ethical issues of preventive surveillance	Automated detection of corruption risks in the public sector

Source: compiled by the author based on Law of Brazil No. 12.846[1], Independent Commission against Corruption (2018), Sophos (2018), Silver Law Group (2023), World Bank (2023), C. O'Connor (2023), P. Gratton (2024), Fake cases, real consequences: The AI crisis facing UK law firms (2025)

The analysis of the presented cases shows that successful implementations demonstrate the potential of AI with thoughtful integration and sufficient data, but negative examples serve as warnings about challenges to the integrity of the legal process. For Ukraine, this means not only striving for the introduction of technologies but also learning from international mistakes, prioritising ethical frameworks, ensuring data quality, and investing in training lawyers to critically evaluate AI results. Global experience highlights that "man in the loop" is not just a surveillance mechanism, but a guarantee of justice in the AI era.

Recommendations for improving the legal regulation of the use of AI and innovative technologies in the investigation of official crimes. To fully utilise the advantages of AI technologies in the investigation of official crimes, Ukraine needs a systematic approach to eliminating the identified legal gaps and improving practical application, based on the analysis of the successful experience of implementing the "iCase" system and the identified shortcomings in the legal regulation of digital evidence. The primary requirement is to ensure the entry into force of the adopted, but not yet put into effect, Law of Ukraine No. 2074-IX "On Virtual Assets"[2] after the end of martial law. The analysis of the judicial practice of the Supreme Anti-Corruption Court showed legal uncertainty regarding the seizure and confiscation of cryptocurrencies in cases of official crimes.

In particular, in the case of the seizure of virtual assets, USDT, TRX, ETH, the court was forced to interpret the traditional norms of Article 368 of the Criminal Code of Ukraine in the context of digital assets without a clear legislative framework[3]. This creates risks of inconsistent enforcement and complicates the work of investigators and prosecutors. The Criminal Procedure Code[4] of Ukraine needs to be supplemented with special norms on the collection, evaluation, and use of evidence obtained using AI technologies. Article 98 of the Criminal Procedure Code of Ukraine defines general requirements for physical evidence, and Article 99 regulates documents (including electronic ones), but neither of them regulates the specifics of digital evidence obtained using AI technologies. This leads to problems with determining the originality of electronic files and the results of AI analysis, in particular, the authenticity of electronic files, the permissibility of algorithmic analysis of large data sets, verification of machine learning results, and the establishment of a storage chain for digital evidence generated by automated systems.

An analysis of the activities of the National Anti-Corruption Bureau of Ukraine demonstrated that the active use of intelligence from open sources, but

[1] Law of Brazil No. 12.846 "On Combating Corruption". (2013, August). Retrieved from https://www.planalto.gov.br/ccivil_03/_ato2011-2014/2013/lei/l12846.htm.
[2] Law of Ukraine No. 2074-IX "On Virtual Assets". (2022, February). Retrieved from https://zakon.rada.gov.ua/laws/show/2074-20#Text.
[3] Judgement of the High Anti-Corruption Court of Ukraine in Case No. 991/1512/23. (2023, June). Retrieved from https://reyestr.court.gov.ua/Review/111590400.
[4] Criminal Procedural Code of Ukraine. (2012, April). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17#Text.

the Law of Ukraine No. 1698-VII "On the National Anti-Corruption Bureau of Ukraine"[1] does not contain a detailed regulation of OSINT methods. This creates legal uncertainty about the admissibility of information obtained from social networks, public registers, and other open sources as evidence. It is recommended to provide for a separate section or special articles in this law on the regulation of OSINT methods that will regulate the procedures for collecting, verifying, and processing data from open sources.

Article 106-1 of the Criminal Procedure Code of Ukraine[2], introduced by the Law of Ukraine No. 1498-IX "On Amendments to the Criminal Procedure Code of Ukraine Regarding the Introduction of an Information and Telecommunications System for Pre-trial Investigation"[3], created the legal basis for electronic pre-trial investigation. However, it is necessary to extend these provisions to other law enforcement agencies, in particular, the State Bureau of Investigation, whose activities are regulated by the Law of Ukraine No. 794-VIII[4]. It is recommended to amend Part 1 of Article 7 of this law by supplementing paragraph 7 with provisions on the powers of the state Bureau of Investigation in the use of innovative investigation technologies, in particular: the use of AI systems for analysing large amounts of data, the application of blockchain analytics for tracking virtual assets, the introduction of digital forensics and OSINT techniques, the creation and use of specialised information and telecommunications systems for electronic document management and interaction with other law enforcement agencies. Articles 93-94 of the Criminal Procedure Code of Ukraine, which regulate the collection of evidence, need to be supplemented with provisions on the use of machine learning algorithms, big data analytics and automated anomaly detection systems. This should be noted in the context of Article 87 of the Criminal Procedure Code of Ukraine on the admissibility of evidence, since the results of AI analysis must meet the criteria of belonging, admissibility, and reliability. Considering Ukraine's European integration aspirations and the need for cooperation with European partners in the field of anti-corruption, it is recommended to harmonise Ukrainian legislation with the Regulation of the EU "On Artificial Intelligence"[5]. Of paramount importance is the implementation of provisions on the classification of AI systems as "high-risk" in law enforcement activities, which requires mandatory risk assessment, ensuring transparency of algorithms and human supervision over automated solutions. This involves making changes to the law of Ukraine No. 2657-XII "On Information"[6] and Law of Ukraine No. 80/94-VR[7] regarding the use of AI in law enforcement activities. Article 6 of the "iCase" System Regulation provides for the use of a comprehensive information security system, but it is necessary to strengthen the requirements of the Law of Ukraine No. 2297-VI "On the Protection of Personal Data"[8] regarding the processing of personal data in AI systems. This is important for ensuring the constitutional rights of citizens enshrined in Article 32 of the Constitution of Ukraine[9]. It is recommended to amend the regulations on the National Academy of Internal Affairs and other departmental acts on the mandatory inclusion of courses on digital investigation technologies in the training programmes of investigators, detectives, and prosecutors. These recommendations are based on the legal gaps identified during the study and the successful experience of introducing innovative technologies by Ukrainian anti-corruption bodies, which will create a comprehensive system of legal regulation of the use of AI in the investigation of official crimes.

Thus, the digital transformation of criminal justice is not a one-time project, but an ongoing, complex adaptive challenge. Failure to address any of these interrelated pillars (legal, ethical, human, cooperation) will undermine the effectiveness and legitimacy of AI applications, potentially leading to a system that is effective but unfair, or technologically advanced but legally vulnerable. The ultimate goal is to create a justice system that is not only smarter but also fair and accountable in the digital age.

Discussion

The results of the study demonstrate a comprehensive picture of the introduction of AI and innovative technologies in the investigation of official crimes, which largely correlates with international trends in the digital transformation of law enforcement activities. The identified

[1] Law of Ukraine No. 1698-VII "On the National Anti-Corruption Bureau of Ukraine". (2014, October). Retrieved from https://zakon.rada.gov.ua/laws/show/1698-18.
[2] Criminal Procedural Code of Ukraine. (2012, April). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17#Text.
[3] Law of Ukraine No. 1498-IX "On Amendments to the Criminal Procedure Code of Ukraine Regarding the Introduction of an Information and Telecommunications System for Pre-trial Investigation". (2021, June). Retrieved from https://zakon.rada.gov.ua/laws/show/1498-20.
[4] Law of Ukraine No. 794-VIII "On the State Bureau of Investigations". (2015, November). Retrieved from https://zakon.rada.gov.ua/laws/show/794-19#Text.
[5] Regulation of the European Parliament and Council of the European Union No. 2024/1689 "On Artificial Intelligence". (2024, June). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L_202401689.
[6] Law of Ukraine No. 2657-XII "On Information". (1992, October). Retrieved from https://zakon.rada.gov.ua/laws/show/2657-12#Text.
[7] Law of Ukraine No. 80/94-VR "On the Protection of Information in Information and Communication Systems". (1994, July). Retrieved from https://zakon.rada.gov.ua/laws/show/80/94-%D0%B2%D1%80#Text.
[8] Law of Ukraine No. 2297-VI "On the Protection of Personal Data". (2010, June). Retrieved from https://zakon.rada.gov.ua/laws/show/2297-17#Text.
[9] Constitution of Ukraine. (1996, June). Retrieved from https://zakon.rada.gov.ua/laws/show/254%D0%BA/96-%D0%B2%D1%80#Text.

specificity of the Ukrainian approach is the gradual implementation of technological solutions through the development of Integrated Information and telecommunications systems and the development of integrated systems, such as "iCase", which differs from the experience of other countries in the more centralised and coordinated nature of digitalisation. In contrast to the fragmented implementation of technologies in many countries, the Ukrainian model is characterised by a systematic approach to integrating various technological solutions into a single anti-corruption ecosystem.

The analysis of the legal basis of official crimes has shown detailed regulation of various forms of corruption behaviour in the Criminal Code of Ukraine, which creates a solid basis for the use of innovative investigative technologies. Compared to the study by R.S. Faqir (2023), which examines general aspects of digital criminal investigations in the AI era, this paper offers a more specific approach to the specific category of crimes and the national context. The results of the analysis confirm the conclusions of K. Blount (2024) on the need to account for the principles of good legal procedure when using AI to prevent crimes. The conducted investigation revealed that the variety of elements of crimes in the field of official activity requires a differentiated approach to the use of AI technologies since each type of offence has specific features of the evidence base and investigation methods.

A study by O. Amelin (2025) on the search of a person in criminal proceedings for obtaining illegal benefits indicates a critical dependence of the admissibility of evidence on compliance with procedural norms. The author determined that procedural violations during the search of a person led to the recognition of inadmissible both directly obtained evidence and derived materials (expert opinions, physical evidence). Compared to traditional methods, innovative digital forensics technologies provide a higher level of procedural discipline through automated recording of evidence by continuous video recording and cryptographic protection of the data storage chain. Analysis of the judicial practice of the Supreme Anti-Corruption Court conducted by O. Amelin (2025) confirms the objective tendency of courts to prioritise video recording over paper protocols when assessing the reliability of evidence. The results of the study indicate that digital technologies do not replace the physical search of a person to identify material objects of illegal benefit, but supplement it with the analysis of electronic communications, financial transactions, and metadata using AI.

The technological solutions identified, in particular, the use of machine learning to analyse large amounts of data and recognise financial anomalies in banking transactions, atypical patterns in public procurement, and suspicious links between officials and contractors, are consistent with the findings of P. Gund *et al*. (2023), which demonstrate the effectiveness of machine learning algorithms in uncovering hidden corruption schemes through analysis of transactional data and social networks. The evolutionary approach to the development of technologies for crime prevention and detection is systematised by O. Apene *et al*. (2024), presenting the transformation from traditional methods to modern AI solutions. The success of the "iCase" system is due to both its technical characteristics and carefully developed procedures for interaction between the National Anti-Corruption Bureau of Ukraine, the Specialised Anti-Corruption Prosecutor's Office, and the High Anti-Corruption Court.

Of particular importance is the highlighted problem of the "black box" in AI systems, which creates challenges for accountability and justice in criminal justice. The results confirm the critical importance of explanatory AI, which is consistent with the conclusions of international experts on the need for transparency of algorithmic solutions. Compared to the work of Y. Leheza *et al*. (2022), which examines international legal standards for the use of AI in criminal proceedings, this study suggests specific mechanisms for solving transparency problems through the introduction of explanatory AI technologies. The legal aspects of AI criminal liability in the context of general crime theory are analysed in detail by C. Kan (2024), expanding the understanding of the fundamental principles of AI application in justice. The problem of the "black box" is particularly acute in cases of official offences since the lack of transparency of algorithmic decisions can undermine public confidence in anti-corruption bodies. Spatial analysis of corruption networks has received a new development due to the paper of M. Swayne (2021), who demonstrated the effectiveness of GIS technologies for mapping complex criminal structures, which is particularly relevant for the investigation of multi-episode official crimes.

The analysis of digital forensics has revealed the critical importance of ensuring the integrity and storage chain of digital evidence, which is especially important for official offences using virtual assets. The results expand the understanding of the problems presented by S. Yadav *et al*. (2023), on the evolution of AI in forensic science and criminal investigations, adding a specific context for official crime and cryptocurrency operations. Biometric identification technologies, particularly keyboard dynamics analysis, are discussed in detail in the study by P. Teh *et al*. (2013), opening up new opportunities for establishing the authorship of digital documents in cases of official offences. The international legal context of cybercrime and the use of AI in this area is presented in the paper of C. Velasco (2022), which analyses the activities of international organisations in the field of criminal justice. Traditional approaches to ensuring the integrity of evidence need to be radically rethought in the context of digital and virtual assets. Ukrainian law enforcement agencies face

special challenges in the field of international legal assistance in the investigation of crimes using virtual assets.

The international experience analysed in the study demonstrates both remarkable successes and critical challenges in implementing AI in law enforcement. The results confirm the conclusions of M. Gupta *et al*. (2025) regarding the ability of AI to revolutionise the speed of evidence processing and the accuracy of analysing large amounts of data in criminal investigations, while demonstrating the need to consider specific national contexts. The practical experience of using AI by government agencies to detect offences is described in detail by A. Bandy *et al*. (2024), pointing to the effectiveness of technological solutions in American law enforcement practice. Current opportunities and challenges of implementing AI in global anti-corruption activities are systematised in the study by S. So (2025), which provides a broad perspective for understanding trends in this area. Compared to the publication of D. Dunsin *et al*. (2024), which presents a comprehensive analysis of the role of AI in modern digital forensic science, this study focuses on a specific category of crimes. The UK's experience in implementing AI displays the ability to achieve significant resource savings, but highlights the importance of careful quality control.

The technical aspects of digital forensics are further covered by S. Kim *et al*. (2020), exploring the features of IoT Device Analysis, which is relevant for the investigation of modern official crimes using "smart" technologies. The methodological foundations of pre-trial investigation are systematised in the work authored by Yu. Belousov *et al*. (2020), which creates the basis for the introduction of innovative technologies in domestic practice. The specified problems of algorithmic bias and the problems of fairness of AI systems are consistent with international studies on the ethical aspects of the use of AI in justice. The results complement the findings of M. Arjamand *et al*. (2024) on the role of AI in forensic analysis with specific proposals for implementing bias audits. The problem of algorithmic bias can have particularly serious consequences in cases of official offences since such cases often have political overtones. Biased algorithms can lead to unfair targeting of certain categories of employees, which undermines the principles of equality before the law.

Practical cases of using cryptocurrencies in official crimes demonstrate new challenges for law enforcement agencies and the need to adapt traditional investigative methods. Compared to the theoretical developments of A. Sahu *et al*. (2024) on the application of AI in forensic science, this paper offers specific examples of judicial practice and mechanisms for seizing virtual assets. An analysis of judicial practice revealed the complexity of procedures for identifying and seizing virtual assets, which requires the coordination of the efforts of various law enforcement agencies. The case of USDT arrest through interaction with Tether demonstrates both the possibilities and limitations of modern approaches to working with virtual assets.

The study demonstrates that the successful implementation of AI in the investigation of official crimes requires not only technological solutions but also a comprehensive approach to legal regulation, ethical standards, and organisational changes. The Ukrainian model of introducing innovative technologies is characterised by a high level of institutional coordination and international cooperation, which distinguishes it from the experience of other countries. Thereby, the identified legal gaps and challenges of digital transformation require further research and systemic solutions to ensure the effectiveness and fairness of justice in the digital age.

Conclusions

The study established that the introduction of AI and innovative technologies in the investigation of official crimes in Ukraine is characterised by a systematic approach to the digitalisation of law enforcement activities. A comprehensive analysis of the legal framework showed that the regulation of official crimes in Ukraine is based on an extensive system of normative legal acts, including the Criminal Code of Ukraine, legislation on civil service, prevention of corruption and international conventions, which creates a sufficient legal framework for the application of technological solutions, accounting for the specifics of each type of offence.

The study revealed the specifics of the Ukrainian approach to the introduction of technologies, which consists in the gradual creation of Integrated Information and telecommunications systems, as opposed to fragmented implementation in other countries. The main technological solutions were systematised: machine learning systems for analysing large amounts of data, pattern recognition technologies for identifying individuals, blockchain analytics for tracking virtual assets, digital forensics methods for ensuring the integrity of electronic evidence, and explanatory AI to overcome the problem of opacity of algorithmic solutions.

It was established that the variety of elements of crimes in the sphere of official activity determines the need for a differentiated approach to the application of technological solutions since each type of offence has specific features of the evidence base and investigation methods. Official forgery requires a detailed review of documents, illegal enrichment – an in-depth examination of financial flows, and abuse of power can involve an analysis of communication records and video materials. The analysis of Ukrainian practice demonstrated the effectiveness of the "iCase" system as an example of successful integration of digital technologies into the activities of anti-corruption bodies. The system provided electronic interaction between the National Anti-Corruption Bureau of Ukraine, the Specialised Anti-Corruption Prosecutor's office, and the High Anti-Corruption Court, optimised the use of resources, and

improved the quality of pre-trial investigations. The active use of OSINT methods and electronic document management by law enforcement agencies was revealed.

The study determined that there are legal gaps in regulating the use of technologies in criminal proceedings. The analysis of judicial practice showed legal uncertainty regarding the procedures for the seizure and confiscation of virtual assets, insufficient regulation of the use of AI results as evidence, and the lack of detailed standards for the OSINT-methods application in the investigation of official crimes. A comparative analysis of international experience has demonstrated the effectiveness of a centralised approach to technology implementation in comparison with fragmented solutions. Successful cases in the UK, USA, Brazil, and Australia pointed to the opportunities to increase the s peed of document processing, improve the detection of financial anomalies, and reduce false positives in systems. International revealed the risks of generating false information by AI systems and the importance of human control over technological solutions. The paper substantiated the need for a comprehensive legislative reform to ensure the effective use of technologies in the investigation of official crimes. The following are necessary: the entry into force of the Law of Ukraine No. 2074-IX "On Virtual Assets", amendments to the Criminal Procedure Code of Ukraine with provisions on the use of AI results as evidence, the development of standards for the application of OSINT methodologies, and the harmonisation of Ukrainian legislation with international standards for AI regulation.

Prospects for further research include quantitative analysis of the effectiveness of implementing specific AI decisions in Ukrainian anti-corruption bodies, development of a methodology for assessing the ethical risks of algorithmic systems in criminal proceedings, research on the impact of automation on the quality of court decisions in cases of criminal offences in the field of official activity, and comparative analysis of the adaptation of European standards for AI regulation to the Ukrainian legal field.

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References

[1] Amelin, O. (2024). Features of the prosecutor's procedural guidance during the investigation of criminal offences in the field of official activity. *Scientific Journal of the National Academy of Internal Affairs*, 29(4), 9-21. doi: 10.56215/naia-herald/4.2024.09.

[2] Amelin, O. (2025). Search of a person as a way of collecting evidence in the pre-trial investigation of accepting an offer, promise or receiving of an illegal benefit by an official. *Constitutional State*, 58, 220-231. doi: 10.18524/2411-2054.2025.58.331008.

[3] Ansari, N. (2025). *Machine learning in forensic evidence examination: A new era*. Boca Raton: CRC Press. doi: 10.4324/9781003449164.

[4] Apene, O.Z., Blamah, N.V., & Aimufua, G.I. (2024). Advancements in crime prevention and detection: From traditional approaches to artificial intelligence solutions. *European Journal of Applied Science, Engineering and Technology*, 2(2), 285-297. doi: 10.59324/ejaset.2024.2(2).20.

[5] Arjamand, M., Saleem, A., Basit, A., Iftikhar, S., Sharif, M., Cholistani, M.S., Farhan, M., Shumail, Khan, B.A., Ali, Z., Shahid, B., & Hasnain, M. (2024). The role of artificial intelligence in forensic science: Transforming investigations through technology. In O. Czenczer, G. Kovács & B. Mészáros (Eds.), *Ludovika international law enforcement research symposium conference proceedings* (pp. 136-146). Budapest: Hungarian Association of Police Science.

[6] Bandy, A.B., Haffner, E., & Suárez, M.C. (2024). *The US government is using AI to detect potential wrongdoing, and companies should too*. Retrieved from https://surl.li/rbxfml.

[7] Belousov, Yu.L., Venger, V.M., Gryga, R.M., Gyulmagomedov, D.O., Derkach, S.A., Krapivin, Ye.O., & Yavorska, V.V. (2020). *Standards for pre-trial investigation*. Retrieved from https://drive.google.com/file/d/101KaZ6eL4UiLB4TB3hcE3y3Qe0ju_WAp/view.

[8] Bernazuk, Y. (2025). *Artificial intelligence in justice: Risks of algorithmic bias and discrimination*. Retrieved from https://court.gov.ua/storage/portal/supreme/prezentacii_2025/125_AI_Algorithmic_Bias_Discrimination_Risks_bernaziuk.pdf.

[9] Blount, K. (2024). Using artificial intelligence to prevent crime: Implications for due process and criminal justice. *AI & Society*, 39(1), 359-368. doi: 10.1007/s00146-022-01513-z.

[10] Chaikovskyi, D. (2023). Artificial intelligence as a new tool for combating crimes in the economic sphere. *Young Scientist's Tribune*, 6, 335-342. doi: 10.32782/yuv.v6.2023.41.

[11] Chin, C. (2025). *Is your smart speaker a snitch? Exploring the legal and privacy dangers of voice-activated devices*. Retrieved from https://surl.li/tryjjg.

[12] Council on Criminal Justice. (2025). *DOJ Report on AI in criminal justice: Key takeaways*. Retrieved from https://counciloncj.org/doj-report-on-ai-in-criminal-justice-key-takeaways/.
[13] Cyber Writes Team. (2023). *What is digital forensics? Tools, types, phases & history*. Retrieved from https://cybersecuritynews.com/what-is-digital-forensics/.
[14] Dunsin, D., Ghanem, M.C., Ouazzane, K., & Vassilev, V. (2024). A comprehensive analysis of the role of artificial intelligence and machine learning in modern digital forensics and incident response. *Forensic Science International: Digital Investigation*, 48, article number 301675. doi: 10.1016/j.fsidi.2023.301675.
[15] EU Anti-Corruption Initiative. (2025). Corruption risks in public procurement – Ukraine's agency for restoration is developing a risk management, monitoring, and efficiency evaluation system with the support of EUACI. Retrieved from https://surl.li/vppmww.
[16] European Public Prosecutor's Office. (2025). *2024 Annual Report: EPPO leading the charge against EU fraud*. Retrieved from https://surl.li/srnazr.
[17] Fake cases, real consequences: The AI crisis facing UK law firms. (2025). Retrieved from https://vinciworks.com/blog/fake-cases-real-consequences-the-ai-crisis-facing-uk-law-firms/.
[18] Faqir, R.S. (2023). Digital criminal investigations in the era of artificial intelligence: A comprehensive overview. *International Journal of Cyber Criminology*, 17(2), 77-94. doi: 10.5281/zenodo.4766706.
[19] Galassi, T. (2018). *OSHA's use of unmanned aircraft systems in inspections*. Retrieved from https://www.osha.gov/memos/2018-05-18/oshas-use-unmanned-aircraft-systems-inspections.
[20] Gratton, P. (2024). *Understanding the SEC*. Retrieved from https://www.investopedia.com/articles/investing/112914/understanding-sec.asp.
[21] Gulyamov, S., & Tatar, S. (2023). The role of artificial intelligence in investigations. *Journal of Law & Artificial Intellegence*, 2(1), 16-22.
[22] Gund, P., Patil, S., & Phalke, V. (2023). Investigating crime: A role of artificial intelligence in criminal justice. *The Online Journal of Distance Education and e-Learning*, 11(2), 1520-1526.
[23] Gupta, M., Sood, R.P., & Singh, R. (2025). Artificial intelligence in criminal investigation: Transforming law enforcement and forensic analysis. In B.N., Mukherjee, R. Uduwerage-Perera, M. Mathew & S. Kumar Tripathi (Eds.), *Rethinking the police for a better future: Navigating policing challenges with accountability and trust* (pp. 311-323). Cham: Springer. doi: 10.1007/978-3-031-83173-7_21.
[24] Gura, O. (2020). *Video evidence in criminal proceedings: The view of the Supreme Court*. Retrieved from https://femida.ua/news/videodokazy-u-kryminalnomu-sudochynstvi-poglyad-verhovnogo-sudu/.
[25] Independent Commission against Corruption. (2018). *Sights firmly set on the engine-room of corruption*. Retrieved from https://www.icac.nsw.gov.au/newsletter/issue52/strategic.html.
[26] Internal Revenue Service. (2023). *IRS-CI delivers cyber training, blockchain analysis tools to Ukrainian investigators*. Retrieved from https://www.irs.gov/compliance/criminal-investigation/irs-ci-delivers-cyber-training-blockchain-analysis-tools-to-ukrainian-investigators.
[27] Kan, C.H. (2024). Criminal liability of artificial intelligence from the perspective of criminal law: An evaluation in the context of the general theory of crime and fundamental principles. *International Journal of Eurasia Social Sciences*, 15(55), 276-313. doi: 10.35826/ijoess.4434.
[28] Karchevsky, M. (2021). *Cryptocurrencies and blockchain technologies: Innovations in combating corruption*. Retrieved from https://justtalk.com.ua/post/kriptovalyuti-ta-tehnologii-blockchain-innovatsii-u-protidii-koruptsii.
[29] Kim, S., Park, M., Lee, S., & Kim, J. (2020). Smart home forensics – data analysis of IoT devices. *Electronics*, 9(8), article number 1215. doi: 10.3390/electronics9081215.
[30] Klyan, A. (2022). *Legal regulation of artificial intelligence in Ukraine and worldwide*. Retrieved from https://golaw.ua/ua/insights/publication/pravove-regulyuvannya-shtuchnogo-intelektu-v-ukrayini-ta-sviti/.
[31] Leheza, Y., Len, V., Shkuta, O., Titarenko, O., & Cherniak, N. (2022). Foreign experience and international legal standards for the application of artificial intelligence in criminal proceedings. *Revista de la Universidad del Zulia*, 13(36), 276-287. doi: 10.46925//rdluz.36.18.
[32] Lontai, M., Pamjav, H., & Petrétei, D. (2024). Artificial intelligence in forensic sciences revolution or invasion? Part I. *Belügyi Szemle*, 72(4), 701-715. doi: 10.38146/BSZ-AJIA.2024.v72.i4.pp701-715.
[33] Merkle Science. (2025). *Securing the blockchain: How tracker simplifies blockchain forensics for law enforcement agencies*. Retrieved from https://surl.lu/pumdxr.
[34] Mordvyntsev, M.V., Pashniev, D.V., & Nakonechnyi, V.S. (2025). Specifics of using video analysis technologies and facial recognition software in criminal analysis. *Communities & Collections*, 96(1), 90-103. doi: 10.32631/pb.2025.1.08.
[35] Nandipati, S.K., Balaji, J., & Krishna, K. (2024). The role of explainable AI in criminal investigations: Unveiling the black box for justice. doi: 10.13140/RG.2.2.36685.24804.

[36] National Agency on Corruption Prevention. (2024). *More than 40% of posts about corruption and anti-corruption are disinformation – results of social media monitoring in August*. Retrieved from https://surl.li/wczkye.
[37] National Agency on Corruption Prevention. (2025). *Lifestyle monitoring: 4.85 million UAH may be confiscated from the former acting head of the Kharkiv Territorial Centre for Recruitment and Social Support*. Retrieved from https://surl.li/knpdjm.
[38] National Anti-Corruption Bureau. (2021). *NABU implements innovations to increase the efficiency of pre-trial investigation*. Retrieved from https://surl.li/petzeo.
[39] National Anti-Corruption Bureau. (2025). *Digitalisation of criminal justice: Integration of iCase and the electronic court*. Retrieved from https://surl.li/blypsg.
[40] National Economic Crime Centre. (2025). *A world leading cross system operational response to economic crime*. Retrieved from https://surl.lu/dvspzg.
[41] O'Connor, C. (2023). *DOJ signals increased emphasis on data analytics to prosecute FCPA global corruption*. Retrieved from https://surl.li/hpzoaf.
[42] Rigano, C. (2019). *Using artificial intelligence to address criminal justice needs*. Retrieved from https://www.ojp.gov/pdffiles1/nij/252038.pdf.
[43] Sahu, A., Tripathy, P., & Shahi, S. (2024). AI applications in forensic science: Transforming crime scene analysis and investigation. *African Journal of Biological Sciences*, 6(11), 1871-1879. doi: 10.48047/AFJBS.6.11.2024.1871-1879.
[44] Silver Law Group. (2023). *What to know about The SEC's "EPS Initiative"*. Retrieved from https://www.secwhistleblowerlawyers.net/what-to-know-about-the-secs-eps-initiative/.
[45] So, S.J. (2025). *Artificial intelligence in anticorruption: Opportunities and challenges*. Retrieved from https://surl.lt/jgbjax.
[46] Solon, O. (2020). *Insecure wheels: Police turn to car data to destroy suspects' alibis*. Retrieved from https://www.nbcnews.com/tech/tech-news/snitches-wheels-police-turn-car-data-destroy-suspects-alibis-n1251939.
[47] Sophos. (2018). *Serious fraud office trialling AI for data-heavy cases*. Retrieved from https://news.sophos.com/en-us/2018/09/05/serious-fraud-office-trialling-ai-for-data-heavy-cases/.
[48] State Bureau of Investigations. (2025). *The State Bureau of Investigation exposed the leaders of "Ukrproftur" and the Federation of Trade Unions in a scheme to misappropriate state property*. Retrieved from https://surl.li/ryjcoa.
[49] Swayne, M. (2021). *GIS technology helps map out how America's mafia networks were "connected"*. Retrieved from https://surl.li/vzyhcb .
[50] Teh, P.S., Teoh, A.B., & Yue, S. (2013). A survey of keystroke dynamics biometrics. *Scientific World Journal*, 2013, article number 408280. doi: 10.1155/2013/408280.
[51] The court seized cryptocurrency found in the possession of the former head of the State Special Communications Service. (2023). Retrieved from https://surl.lt/opwhyc.
[52] The power of big data analytics platforms for police departments. (2025). Retrieved from https://www.cognyte.com/blog/big-data-analytics-platform/.
[53] Tokarieva, K., & Savliva, N. (2021). Peculiarities of legal regulation of artificial intelligence in Ukraine. *Scientific Works of Kyiv Aviation Institute. Series Law Journal "Air and Space Law"*, 3(60), 148-153. doi: 10.18372/2307-9061.60.15967.
[54] Trebilcock, O. (2020). *Are Alexa and Google Assistant spying on us?* Retrieved from https://www.which.co.uk/news/article/are-alexa-and-google-assistant-spying-on-us-aW8TJ6N0wdf8.
[55] U.S. General Services Administration. (2025). *GSA Fleet telematics*. Retrieved from https://surl.li/uejezo.
[56] UK Government. (2025). *FOI Log*. Retrieved from https://surl.li/xtehig.
[57] United States Government Accountability Office. (2020). *Time and attendance: Agencies generally compiled data on misconduct, and reported using various internal controls for monitoring*. Retrieved from https://www.gao.gov/assets/710/709146.pdf.
[58] Velasco, C. (2022). Cybercrime and Artificial Intelligence. An overview of the work of international organizations on criminal justice and the international applicable instruments. *ERA Forum*, 23, 109-126. doi: 10.1007/s12027-022-00702-z.
[59] What is digital forensics? Phases of digital forensics in cybersecurity. (2024). Retrieved from https://www.eccouncil.org/cybersecurity-exchange/computer-forensics/what-is-digital-forensics/.
[60] Wood, B. (2017). *North carolina department of transportation division of motor vehicles license and theft bureau: Investigative report*. Retrieved from https://surl.li/urqomr.
[61] World Bank. (2023). *Governance Risk Assessment System (GRAS): Advanced data analytics for detecting fraud, corruption, and collusion in public expenditures*. Retrieved from https://surl.li/bikbsa.

[62] Yadav, S., Yadav, S., Verma, P., Ojha, S., & Mishra, S. (2023). Artificial intelligence: An advanced evolution in forensic and criminal investigation. *Current Forensic Science*, 1(1), article number e190822207706. doi: 10.2174/2666484401666220819111603.
[63] Yuk, P. (2017). *Rolls-Royce reaches £671m agreement to settle corruption probes*. Retrieved from https://www.ft.com/content/04ace079-e3c2-347a-98dc-ec735ea51dbc.
[64] Zinnbauer, D. (2025). *Artificial intelligence in anti corruption – a timely update on AI technology*. Retrieved from https://surl.li/nizaig.

Упровадження штучного інтелекту й інших інноваційних технологій у процес розслідування кримінальних правопорушень у сфері службової діяльності

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Анотація
Метою дослідження був аналіз українського та міжнародного досвіду використання штучного інтелекту в розслідуванні службових правопорушень, розроблення рекомендацій щодо адаптації найкращих практик до української правової системи. Методологія дослідження ґрунтувалася на порівняльному аналізі регулювання та практики впровадження штучного інтелекту в Україні, США, Великій Британії, Австралії та Бразилії з вивченням технологічних механізмів функціонування, правових гарантій у правоохоронній діяльності. Окреслено специфіку українського підходу до впровадження технологій через створення інтегрованої системи «іКейс», що забезпечила електронну взаємодію між Національним антикорупційним бюро України, Спеціалізованою антикорупційною прокуратурою та Вищим антикорупційним судом, на відміну від фрагментарного впровадження в інших країнах. Систематизовано технологічні рішення: машинне навчання для аналізу великих обсягів даних, пояснювальний штучний інтелект, цифрову криміналістику з дев'ятьма фазами обробки доказів, блокчейн-аналітику для відстеження віртуальних активів. Проаналізовано українські кейси: арешт криптовалют Tether, Tron, Ethereum у справі № 991/1512/23 Вищого антикорупційного суду, вирок у справі № 991/3227/24, систему оцінювання ризиків у державних закупівлях з 21 автоматичним індикатором, використання методик розвідки з відкритих джерел Національним антикорупційним бюро України. Міжнародний досвід продемонстрував ефективність штучного інтелекту, зокрема у справах Rolls-Royce, Operation Gold Rush, у роботі Європейської прокуратури та використанні бразильського бота ALICE. Виявлено критичні виклики: проблему «чорної скриньки» алгоритмів, ризики упередженості систем, правові прогалини щодо цифрових активів, необхідність гармонізації з Регламентом ЄС про штучний інтелект 2024/1689. Результати дослідження можуть бути використані антикорупційними органами під час упровадження технологій штучного інтелекту, судовою системою – для формування єдиної практики оцінювання цифрових доказів, органами законодавчої влади – під час розроблення спеціального законодавства про штучний інтелект, науково-освітніми установами – для підготовки кваліфікованих кадрів у сфері цифрового розслідування злочинів

Ключові слова:
цифровізація; електронний документообіг; інноваційні методи розслідування; цифрові докази; кіберзлочинність; антикорупційні органи; незаконне збагачення

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Conducting a surface inspection: Compliance with requirements under martial law

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Abstract
Preventive measures are not widely discussed in the scientific literature. Publications are mainly devoted to checking a person's documents, stopping a vehicle, entering a person's home or other property. The relevance of the stated topic is related to a number of issues that arise during the practical application of surface inspection, the need to improve the provisions of legal regulation considering the legal regime of restrictions on human rights, and the course of transformation processes in law enforcement agencies. The purpose of the study was to investigate the principles of surface inspection as a preventive measure used by authorised entities under martial law. The research methodology consisted of comparative legal, hermeneutical, formal logical, system structural, analytical generalising methods, and graphical modelling. It was established that the current legislation of Ukraine contains significant differences in the scope of powers and procedures for conducting a surface inspection. In particular, they relate to determining the range of objects of verification (person, item, vehicle, goods), the procedure for attracting service dogs, conditions and limits for using special means. Territorial restrictions are also important, which are clearly defined by the legislation for border guards (border control areas, checkpoints, and entry and exit checkpoints), while such territorial borders are not established for police officers. Additionally, there are differences in the procedural stages of verification between police officers and military personnel of the state border service of Ukraine. Conflicts between the provisions of legislative acts and bylaws have been identified, which creates a risk of unequal

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law enforcement and requires comprehensive legal regulation to ensure a unified law enforcement practice. The paper analysed the international experience of establishing responsibility for authorised entities in the illegal application of preventive measures. The practical significance of the study lies in the fact that the results of the study can be used to form and improve the regulatory legal provisions of national legislation regulating the activities of law enforcement agencies in the application of preventive measures

Keywords:
preventive measure; check of the person; law enforcement agencies; checkpoint; compliance of evidence; rules of judges; liability

Introduction

The blurring of the boundaries of legal regulation in the application of a number of police measures with measures to ensure proceedings in cases of administrative offences and measures to ensure criminal proceedings has been the subject of much debate in academic literature and attempts to clarify in the decisions of courts of cassation. Despite the fact that the provisions of laws and regulations concerning the verification of a person's documents, stopping a vehicle, entering a person's home or other possession[1] have undergone legislative changes, and a surface inspection, the use of which is urgent in preventing and countering criminal and administrative offences, does not reflect differentiation for peacetime and special period conditions in the activities of authorised entities of the National Police and the State Border Service of Ukraine.

R. Liashuk & V. Vychavka (2024) pointed out that the legal mechanism for performing surface inspection of persons, things, goods (cargo), and vehicles needs to be improved due to the blank nature of its regulatory norms, the conflict of laws of certain provisions of national legislation and bylaws inherent in law enforcement and service-combat activities of the State Border Service of Ukraine features. G. Scherbakova (2022) suggested that the use by law enforcement officers of a single template of behaviour in the application of surface inspection as a preventive police measure to persons with different status of the subject of law leads to significant violations of human rights and freedoms, and the appearance of law enforcement errors in the activities of authorised entities. N. Sergiienko & M. Babiak (2024) attributed the urgency of improving national legislation to the shortcomings of legal regulation of specific legal relations arising during martial law, coordination of actions between bodies authorised to apply preventive measures and ensure a balance between guaranteeing citizens' rights and protecting national security. Z. Bolotashvili *et al.* (2023) expressed the opinion that it is necessary to establish legal liability for persons who refuse to comply with the requirement of a police officer to independently show the contents of personal belongings or a vehicle and pay attention to the effectiveness of a surface inspection in current conditions and the negative consequences if changes are made to the current legislation concerning the procedure for conducting it. O. Prysiazhniuk (2024) emphasised that in the conditions of a full-scale invasion of the Russian Federation on the territory of Ukraine, the tasks of increasing the country's defence capability, creating logistics chains, combating natural disasters, maintaining public order and public security, preventing and countering illegal actions of various types are gaining priority, so the use of methods of the legal paradigm of the state associated with improving the mechanisms of legalised coercion is quite justified.

Legal regulation of conducting a surface inspection, regulated by the provisions of Law No. 580-VIII[2], the Law No. 661-IV[3], in accordance with the procedure approved by resolution of the Cabinet of Ministers of Ukraine No. 1456[4], has a conflict-of-laws nature and sub-constitutional limitations in the application of remedies. L. Kovarsky (2023) argued that in such a context, the enforcement of existing national norms acquires the characteristic features of procedural prosecution and is supplemented by internally sensitive elements, which cause incomplete constitutional violations of human rights in the application of preventive measures by authorised subjects.

O. Dzafarova *et al.* (2024) noted that issues of effectiveness and legitimacy of preventive measures, the possibility of their use without human rights violations are key aspects in preventing new threats to Ukraine's national security. Legislative streamlining of the grounds and procedural features of their application will prevent abuses that cause illegal encroachments on the life, health, and rights of a person and citizen, and on national security within the country. N. Thybulnyk (2023) emphasised that to stabilise the political

[1] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[2] Ibidem, 2015.
[3] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[4] Resolution of the Cabinet of Ministers of Ukraine No. 1456 "On Approval of the Procedure for Checking Documents of Persons, Inspection of Things, Vehicles, Luggage and Cargo, Office Premises and Housing of Citizens in the Course of Ensuring the Measures of the Legal Regime of Martial Law". (2021, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1456-2021-%D0%BF#Text.

and economic situation in the state, it is possible to ensure the rights and legitimate interests of citizens, to increase the level of national security with the active role of the authorities and law enforcement officers. The current situation requires a clear legislative response and the implementation of administrative and legal mechanisms designed to improve the resource, regulatory, material, technical, and social and legal support for the security and defence sector. E. Rho *et al.* (2023) expressed the view that the use of preventive measures is crucial in establishing relations between law enforcement officers and the community. The introduction of institutional dialogue acts related to the skills of police officers, border guards, stopping a person or vehicle, explaining the reason for stopping and requesting documents will have a positive impact on the progress of reforms in law enforcement agencies, and ensure the best implementation of the principles of trust and transparency in their activities. E. Morozov (2022) substantiated the opinion on the need to develop a fundamental approach in building the theoretical, legal, and practical mechanism of institutional capabilities of police procedures. Accurate and systematic approval of the standards of the human-centric approach would allow determining the algorithm for establishing the measure possible and permissible in the implementation of preventive activities by authorised entities and formulate a coordinate system acceptable to the global understanding of building a democratic society. K. Lezhnin (2022) noted that the safety and security of the individual in the state is determined by the development of means used to protect and ensure human rights, its direct protection from potential external and internal threats, and the efficiency of their neutralisation under martial law. Fighting for state interests, strengthening the national security of Ukraine, and protecting each of its citizens actualise the issues of improving existing methods and means of law enforcement, including finding new mechanisms that would simultaneously ensure and guarantee respect for human rights.

The procedural variability of the legal regulation of conducting a surface inspection, the lack of a proper adaptive system that considers the specifics of peacetime and a special period in its application, and the urgency of legal improvement of the system of preventive measures, considering the processes of reform in the security and defence sector, the development of conceptual positions of respect for human rights in the activities of law enforcement agencies, which was emphasised by scientific communities, influenced the formulation of the goals and objectives of the study. The purpose of the study was to investigate the possibility of unifying the legal mechanism for conducting a surface inspection under martial law. Research tasks were defined as: to identify the main methods, grounds for conducting a surface inspection; to characterise its procedural features, requirements that authorised entities must comply with when applying it; to identify gaps in national legislation that require changes and additions.

Materials and Methods

The implementation of the goal and objectives was ensured by the study of regulatory documents of national legislation, in particular, Law No. 580-VIII[1], the Law No. 661-IV[2], the Procedure approved by Resolution of the Cabinet of Ministers of Ukraine No. 1456[3], literary sources of Ukrainian and foreign authors who raised issues related to the stated topic. The selected empirical materials outlined the procedural aspects of conducting a surface inspection by various authorised persons, determined guarantees for the use of preventive measures, compared the features of the Ukrainian approach for compliance with international human rights standards, and compared it with European practice.

The main methodological tool of the research was the legal analysis of laws and regulations, which was used in combination with comparative legal, hermeneutical, formal logical philosophical methods, and using the system structural, analytical generalising method and the method of graphic modelling.

S. Romashkin (2024) emphasised the effectiveness of the application of legal analysis in studies of legal categories, so the method of legal analysis was used to identify and interpret legal norms containing the definition of the term "surface inspection", establish its legal nature; assess the interaction of legal norms related to the study of how different legislative acts regulate the same concept, in particular in terms of objects and grounds for applying surface inspection; identify conflicts and gaps in comparing the requirements of legislative and bylaws; substantiate proposals for improving legislation.

The comparative legal method helped to compare different legislative norms regarding the subject matter and procedure for conducting a surface inspection (laws No. 580-VIII[4] and No. 661-IV[5], Procedure approved by Resolution of the Cabinet of Ministers of

[1] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[2] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[3] Resolution of the Cabinet of Ministers of Ukraine No. 1456 "On Approval of the Procedure for Checking Documents of Persons, Inspection of Things, Vehicles, Luggage and Cargo, Office Premises and Housing of Citizens in the Course of Ensuring the Measures of the Legal Regime of Martial Law". (2021, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1456-2021-%D0%BF#Text.
[4] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[5] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.

Ukraine No. 1456[1]). A. Solomaha (2024) justified the expediency of using a comparative method in the study of "a little-studied or debatable administrative and legal phenomenon, the content of which can be clarified by comparison with a similar legal phenomenon that is stable in legal science".

Formal legal analysis has contributed to a detailed study of terms and definitions (for example, "surface inspection" as a legal term in the national terminology system). The system and structural method provided a classification of surface inspection within the micro- and macro-systems of police and border measures. Logical and legal analysis of procedures was used to identify and analyse the three stages of the procedure (stopping, visual inspection, completion) and their connection with procedural actions.

Graphical modelling allowed illustrating the grounds for conducting a surface inspection (Fig. 1) and dynamics of legal requirements in case of detection of an offence during a surface inspection (Fig. 2). Using the analytical and generalising method, legislative conflicts were identified, practical problems were identified, and recommendations for harmonisation of norms were formulated.

Results and Discussion

Surface inspection as an element of the term system of national legislation is consolidated in Law No. 580-VIII[2] and is interpreted through the ways of its implementation or in a combination thereof, namely:

1) without physical contact by visual inspection;

2) by running a hand over the surface;

3) by running a special device or tool over the surface.

The explanation of superficial verification as a professional token was recorded in the Law No. 661-IV[3]. Paragraph 15 of part 1 of Article 20 of the Law refers to the existence of a procedure that has legal grounds and an established order of conduct. Compared to the definition given in Law No. 580-VIII[4], the general method of carrying out the event is limited to visual inspection, which is allowed to involve service dogs. A surface inspection is interpreted as a right granted by the state for an authorised person to perform the tasks assigned to the state border service of Ukraine. The use and use of it by military personnel and employees of a special vehicle in the form of service dogs is provided for by separate norms of the Law No. 661-IV[5] – subParagraph b) of Paragraph 5 of part 2 of Article 21[2]. The use of service dogs by police officers during a surface inspection does not have direct legal prohibitions, but formally it will be a combination of a preventive police measure and a police coercive measure.

Purpose, grounds, and procedure for conducting a surface inspection in the Law No. 580-VIII[6] and the Law No. 661-IV[7] set out in the provisions of individual articles. Despite the fact that in the activities of the police, surface inspection is part of the microsystem of preventive police measures and the macro-system of police measures, surface inspection, which is used in the performance of tasks by law enforcement officers of the State Border Service of Ukraine, is not endowed with classification features. Common to them is the purpose of application – ensuring the fulfilment of the tasks assigned to authorised entities of official activity.

Conducting a surface inspection by the police provides that it can be applied to a person, item, and vehicle. Military personnel and employees of the State Border Service of Ukraine carry out this procedure, in addition to the above, for goods (cargo) and provided that its objects are located within specified territorial boundaries. Law No. 661-IV[8] defines them as border control areas, checkpoints (control points) across the state border of Ukraine, checkpoint of entry and exit. The grounds for conducting a surface inspection of a person, an item, and a vehicle by police officers, members of the armed forces, and officers of the State Border Guard Service of Ukraine were unified, presented in Fig. 1.

Schematic representation of the grounds for conducting a surface inspection in Fig. 1 indicates that its main object is an item that is prohibited, restricted for circulation, may pose a threat to human life and health, be located in the place of commission, or be an instrument of an offence. A surface inspection of the vehicle is carried out if a person or item is found in it, or it is an instrument of an offence or is located in the place of commission of the latter. If the norms of the Law No. 580-VIII[9] provide for conducting a surface inspection of items and vehicles when they are located in the place of committing a criminal offence, then for

[1] Resolution of the Cabinet of Ministers of Ukraine No. 1456 "On Approval of the Procedure for Checking Documents of Persons, Inspection of Things, Vehicles, Luggage and Cargo, Office Premises and Housing of Citizens in the Course of Ensuring the Measures of the Legal Regime of Martial Law". (2021, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1456-2021-%D0%BF#Text.
[2] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[3] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[4] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[5] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[6] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[7] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[8] Ibidem, 2003.
[9] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.

authorised subjects of the state border service of Ukraine, theLaw No. 661-IV[1] expands the grounds in this part, including the place of committing an administrative offence in the list.

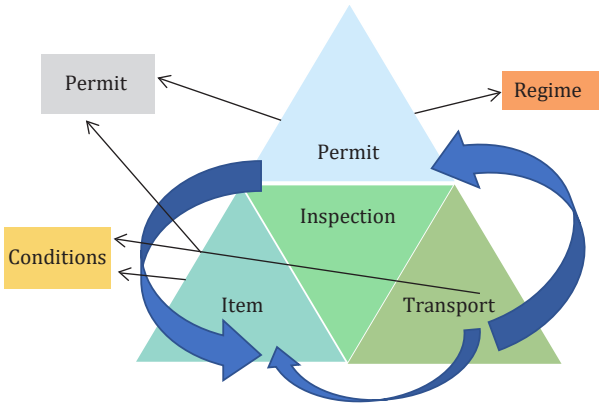

Figure 1. Grounds for conducting a surface inspection by an authorised person
Source: developed by the authors based on the study of the Law No. 580-VIII[2] and the Law No. 661-IV[3]

A person is the object of a surface inspection if regime violations are committed and there is no permit to stay in a certain territory. If the position the Law No. 661-IV define military personnel and employees of the State Border Service of Ukraine, subjects of conducting a cursory check of a person, item, or vehicle, then th Law No. 580-VIII[4], despite the fact that it covers all the listed objects with the possibility of applying a preventive police measure to them, it restricts police officers in its use against the person, referring to the observance of human rights and the rule of law consolidated in Articles 3, 24 of the Constitution Of Ukraine[5]. The Law No. 661-IV[6] establishes a separate category of persons for whom a surface inspection is not carried out – these are persons who, in accordance with the law, enjoy the right of inviolability or have diplomatic immunity. N. Sergiienko & M. Babiak (2024) drew attention to the expansion of the list of authorised entities that can carry out a surface inspection to ensure measures of the legal regime of martial law. In particular, in addition to the National Police and the State Border Guard Service of Ukraine, this right is granted to authorised persons of the Security Service of Ukraine, the National Guard, the State Migration Service of Ukraine, the State Customs Service of Ukraine and the Armed Forces of Ukraine[7]. Simultaneously, the need to confirm the granted powers for police and military personnel and employees of the State Border Service of Ukraine causes a conflict between the provisions of Paragraph 3 of the Procedure approved by Resolution of the Cabinet of Ministers of Ukraine No. 1456[8], and Paragraph 3 of part 1 of Article 31 of Law No. 580-VIII[9], Paragraph 15 of part 1 of Article 20 of the Law No. 661-IV[10], accordingly.

The procedural features of conducting a cursory check cover the three-stage mechanism detailed in the Law No. 580-VIII[11], namely: stopping the person, conducting a visual inspection, and completing the inspection. I. Pidbereznykh *et al.* (2024) noted that structuring operational procedures of subjects of the national security and defence sector and its step-by-step detailing allows improving the coordination organisation of units' activities under martial law, their effective response to threats. This approach is important not only for optimising national security, but also for establishing cooperation with foreign partners and compliance with international security standards.

At the first stage, a mandatory condition for conducting a surface inspection is that the authorised representative of the same sex as the person being inspected must stop the person. In urgent cases, a surface inspection is allowed by persons of the opposite sex with the person being checked, but only if a special device or tool is used. The distribution of the rights of police officers, military personnel and employees of the State Border Service of Ukraine, authorised persons who provide measures of the legal regime of martial law, to use special devices or means in visual inspection, depending on the object, is reflected in Table 1.

[1] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[2] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[3] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[4] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[5] Constitution of Ukraine. (1996, June). Retrieved from https://zakon.rada.gov.ua/laws/show/en/254к/96-вр?lang=uk#Text.
[6] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[7] Resolution of the Cabinet of Ministers of Ukraine No. 1456 "On Approval of the Procedure for Checking Documents of Persons, Inspection of Things, Vehicles, Luggage and Cargo, Office Premises and Housing of Citizens in the Course of Ensuring the Measures of the Legal Regime of Martial Law". (2021, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1456-2021-%D0%BF#Text.
[8] Resolution of the Cabinet of Ministers of Ukraine No. 1456 "On Approval of the Procedure for Checking Documents of Persons, Inspection of Things, Vehicles, Luggage and Cargo, Office Premises and Housing of Citizens in the Course of Ensuring the Measures of the Legal Regime of Martial Law". (2021, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1456-2021-%D0%BF#Text.
[9] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[10] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[11] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.

Table 1. Application of special devices or tools in visual inspection

	Person	Item	Vehicle
police officers	+	+	+
border guards	+*	-*	-*
martial law regime	+	+	+

Notes: + – allowed to apply; - – application not provided for; * – the analysed provisions consider cases without the use and application of special animals
Source: developed by the author

The material systematised in Table 1 indicates the priority imitation of police procedures for the use of special devices or means under martial law. Conducting a surface inspection, regulated by the provisions of Law No. 580-VIII[1], focused on compliance with the principle of legality, respect for the honour and dignity of a person (Article 3 of the Constitution of Ukraine[2]), non-discrimination on any ground (Article 24 of the Constitution of Ukraine[3]), and provides that police officers must act correctly, with restraint, without threats or coercion, they are prohibited from seizing personal belongings without legal grounds, and in the event of a person's disagreement with the inspection – to provide primary legal assistance, explaining their rights and the possibility of appealing against the actions of a police officer, in accordance with the second part of Article 41 of the Law No. 580-VIII[4]. O. Dmytrenko (2023) emphasised that such activities of authorised entities are in close interaction with the procedures of coercive measures, determining the probability of further use of the latter in order to stop the offence, eliminate the causes and conditions of their occurrence, and carry out group or individual influence.

At the second stage, the procedure for conducting a surface inspection provides that the police officer, according to part three of Article 18 of the Law No. 580-VIII[5], must introduce themselves, inform the person of their last name, position, special title, and present a service certificate at a request, providing an opportunity to get acquainted with the information set out in it, without letting it out of their hands, explain the legal grounds with a quote of specific norms for conducting a surface inspection, ask the person to independently present the contents of hand luggage or open clothes, if necessary, open the trunk lid and/or interior doors, carry out a visual inspection of items without their withdrawal or physical contact, in case of detection of prohibited items – take measures in accordance with the current legislation (drawing up a protocol, calling an investigative task force), notify the person of the completion of the check and thank a person for understanding. Yu. Shovkun (2024) explained the presence of etiquette forms in the legal regulation at the second stage of conducting a surface inspection as a mandatory moral and ethical aspect that concerns the behaviour of a public person and is crucial in relations with citizens. "A public servant, regardless of their position, is a representative of the state, so it is important that their behaviour does not have a negative impact on the image" of the body (division) in which they serve, and does not affect the perception of state activities.

Provisions of part 6 of Article 21[7] of the Law No. 661-IV[6] give military personnel and employees of the State Border Service of Ukraine the right to demand the opening of a bag, backpack, briefcase, bag or other means of moving things, hood, trunk lid and/or interior doors of the vehicle, showing the contents of the pockets of clothing of the person in respect of whom the inspection is being conducted. The simplified procedure for the second stage of surface inspection in the Procedure approved by Resolution of the Cabinet of Ministers of Ukraine No. 1456[7] allows authorised persons who ensure the measures of the legal regime of martial law to apply analogies of procedural law in each individual case. V. Somina (2025) pointed out that this way it is possible to quickly eliminate legislative gaps in practice. This will be justified and within the single branch will not contradict the requirements of legality.

At the third and final stage of the inspection, if no violations were detected by the authorised person, the person against whom the procedure was applied can continue driving without restrictions. If an administrative or criminal offence is detected, measures are taken to ensure proceedings in cases of administrative offences, measures to ensure criminal proceedings, and evidence of an offence is collected.

[1] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[2] Constitution of Ukraine. (1996, June). Retrieved from https://zakon.rada.gov.ua/laws/show/en/254к/96-вр?lang=uk#Text.
[3] Ibidem, 1996.
[4] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[5] Ibidem, 2015.
[6] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[7] Resolution of the Cabinet of Ministers of Ukraine No. 1456 "On Approval of the Procedure for Checking Documents of Persons, Inspection of Things, Vehicles, Luggage and Cargo, Office Premises and Housing of Citizens in the Course of Ensuring the Measures of the Legal Regime of Martial Law". (2021, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1456-2021-%D0%BF#Text.

The requirements for carrying out procedural measures may change at the second and third stages of the audit. The determinants in this process are the goal that the authorised subject faces, namely: prevention of an offence, documentation of an offence, collection of evidentiary information – and its involvement in the mechanism for implementing a superficial check. For example, at the second stage of conducting a surface inspection, if the investigative task force is called, the authorised person stops using a preventive measure, because the investigator begins procedural actions to document a criminal offence or collect evidentiary information. N. Banetka (2022) emphasised the importance of clear differentiation of actions performed by authorised entities. The "good faith" of a police officer will not satisfy the requirements of propriety if a search of a person is conducted without justification. G. Edmond (2024) pointed out that failure to comply with applicable rules, procedures and safeguards at any stage may lead to litigation or result in biased and speculative opinions being formed when a decision is made. T. Meyer & G. Sitarman (2023) emphasised that law enforcement agencies' disregard for guarantees and restrictions on human rights under martial law will require additional control by the judicial branch of government and negatively affect the stability of national security to internal threats. Schematically, the dynamics of legal requirements in case of detection of an offence during a surface inspection is shown in the Fig. 2.

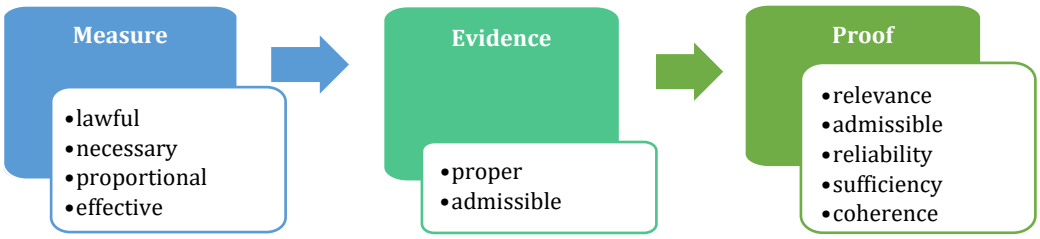

Figure 2. Dynamics of legal requirements in case of detection of an offence during a surface inspection
Source: developed by the author

Graphic material shown in Fig. 2, indicates a direct link between preventive measures, documenting an offence, and collecting evidentiary information. The specificity of applying measures to ensure proceedings in cases of an administrative offence, measures to ensure criminal proceedings is that their practical implementation can accompany the implementation of all these actions and simultaneously have an autonomous disclosure. The differentiation of police measures with measures to ensure production and procedural actions is mainly considered by researchers from the standpoint of their tactics, leaving unresolved issues of whether there are conflict-of-laws norms in national legislation. If Article 29 of the Law No. 580-VIII[1] contains requirements for the use of a surface inspection as a police measure, then in the following cases: the Law No. 661-IV[2] they apply only to coercive measures (Article 21). The Procedure approved by Resolution of the Cabinet of Ministers of Ukraine No. 1456[3], also contains no requirements for conducting a surface inspection.

I. Litvinova & D. Lobay (2022) indicated the introduction of certain specifics in the process of applying measures to ensure proceedings in cases of administrative offences and conducting procedural actions in criminal proceedings, which consists in expanding the rights of victims and violating the rights of the person who committed the offence. However, the above analysis shows a different picture. Under martial law, the list of grounds for conducting a surface inspection has increased and the procedure for applying a preventive measure has been simplified. Compliance with the requirements of part 3 of Article 18 of Law No. 580-VIII [4]by police officers is formalised or not enforced at all. It is obvious that I. Litvinova & D. Lobay (2022) did not consider the fact that the expansion of rights for victims and the violation of the rights of the offender is determined by the increase in powers with internally sensitive elements for the National Police, the State Border Service of Ukraine, the Security Service of Ukraine, the National Guard, the State Migration Service of Ukraine, the State Customs Service of Ukraine, and the Armed Forces of Ukraine. In this aspect, the results obtained are consistent with the opinion of M. Parayko (2023), who reported abuses by officials motivated by the need to ensure personal safety from attack. The conclusions of these researchers, considering the results of this

[1] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[2] Law of Ukraine No. 661-IV "On the State Border Guard Service of Ukraine". (2003, April). Retrieved from https://zakon.rada.gov.ua/laws/show/661-15#top.
[3] Resolution of the Cabinet of Ministers of Ukraine No. 1456 "On Approval of the Procedure for Checking Documents of Persons, Inspection of Things, Vehicles, Luggage and Cargo, Office Premises and Housing of Citizens in the Course of Ensuring the Measures of the Legal Regime of Martial Law". (2021, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1456-2021-%D0%BF#Text.
[4] Law of Ukraine No. 580-VIII "On the National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.

study, can be considered in a different plane, in particular, regarding the implementation of international experience in operational law enforcement procedures in national legal norms. G. Ogapde (2024), using the example of a legal analysis of the powers of the police in the Republic of Ireland, refers to the "Rules of Judges" as best practices that allow law enforcement officers to perform their professional duties without constant accusations of human rights violations and to interact effectively with the public.

Statement by G. Ogapde (2024) that the imperativeness of judges' rules to prevent offences by citizens seems debatable. But the provisions of Ukrainian legislation provide for personal responsibility for the illegality of actions for authorised entities. In case of violation of the procedure for conducting a preventive measure, the person against whom it was applied has the right to file a complaint. Illegal actions of a police officer during a surface inspection are grounds for disciplinary liability[1], which, according to a number of researchers, is ineffective for ensuring a human-centred aproach in the application of surface inspection.

O. Pavlyshyn *et al.* (2021) point to the priority effectiveness of social responsibility over disciplinary responsibility. The functioning of the institute of social responsibility of state authorities in the context of the professionalism of authorised entities is a significant indicator of their professional growth and the level of trust of citizens in law enforcement agencies. Compliance with generally accepted social norms, fulfilment of assigned powers, readiness to report on their own actions requires law enforcement officers to purposefully differentiate work with the population, strengthen interdepartmental interaction and coordination, which in the context of public administration affects the effective counteraction to threats and prompt response to them by subjects of the security and defence sector. Y. Kryvytskyi *et al.* (2024) supported the opinion of O. Pavlyshyn *et al.* (2021) and argued that the main areas for optimising the procedures of authorised entities in the application of police measures should be determined with a focus on international standards and international experience in the field of human rights. The introduction of a special liability mechanism for law enforcement officers will prevent abuse and allow adapting, approximating, and harmonising the best European practices. L. Soleimani-Alyar *et al.* (2024), examining the legal regulation and practice of applying preventive measures by law enforcement officers in the Islamic Republic of Iran and the French Republic, emphasised the effectiveness of determining responsibility for each person (victim and authorised person) when applying preventive measures. Factors leading to the emergence/breaking of a causal relationship, such as intimidation, coercion, fear for the victim's own safety, and the quality of damage from the actions of an authorised person are crucial for bringing or releasing a police officer from civil liability.

Thus, despite scientific discussions around the proportionality of human rights violations under martial law experienced by victims and persons who have committed offences, and the determining factor of decision-making by authorised entities, researchers are unanimous in their conclusions about the effectiveness of implementing social responsibility for the latter. The institution of responsibility does not provide for the functioning of such a mechanism. The current provisions of Ukrainian legislation determine that law enforcement officers may face administrative, criminal, civil, and disciplinary liability. The current practice of conducting a surface inspection reflects the disharmonisation of international norms in the field of human rights protection with national ones and requires reducing internally sensitive elements in the field of human rights. The conflict of laws of the norms analysed in the study, which are based on peacetime, calls into question the relevance of preventive procedures under martial law to international standards. Ukraine's own experience may be useful for other states to follow in the future.

Conclusions

The subject of study in the study was related to compliance with the requirements for conducting a surface inspection under martial law. Considering the legal mechanism of a preventive measure, an attempt was made to unify its procedural aspects, in particular, to identify ways of implementation, grounds for application, and to find out the regulatory provisions that require further improvement. A surface inspection is carried out to fulfil the tasks of official activity by police officers, military personnel, and employees of the State Border Service of Ukraine, authorised subjects of the Security Service of Ukraine, the National Guard, the State Migration Service of Ukraine, the State Customs Service of Ukraine, and the Armed Forces of Ukraine. Law enforcement officers carry it out in three stages, performing it according to the chosen method: by visual inspection without contact, holding it on the surface with a hand or a special device or tool, or in combination. A mandatory condition for the first stage of conducting a surface inspection is to stop the person. Under martial law, its additional function is to protect the life and health of an authorised person from an attack with weapons or other objects. When conducting a surface inspection in the activities of military personnel and employees of the State Border Service, it is permissible to use a special tool – a service dog. At the second stage, when

[1] Law of Ukraine No. 2337-VIII "On the Disciplinary Statute of the National Police of Ukraine". (2018, March). Retrieved from https://zakon.rada.gov.ua/laws/show/2337-19#Text.

an offence is detected, it is possible to simplify the procedure for conducting a surface inspection, which consists in replacing it with measures to ensure proceedings in cases of an administrative offence, measures to ensure criminal proceedings or procedural actions in the event of a change of the law enforcement officer by the relevant authorised subject.

The objects of a surface inspection are a person, belongings, and a vehicle. A special feature of the preventive measure procedure is its variable adaptability to the conditions of martial law and the tasks of law enforcement. The implementation of the second and third stages of a surface inspection allows involving measures to ensure proceedings in cases of administrative offences, measures to ensure criminal proceedings when detecting an administrative and/or criminal offence. Depending on the purpose and legal status of the authorised entity, the legal requirements for detecting an offence change dynamically. If ensuring the legality, necessity, proportionality, and effectiveness of the preventive measure is sufficient for the prevention of offences, then belonging, admissibility, reliability, sufficiency, and interrelationship are relevant in documenting and collecting evidentiary information.

Special attention of researchers should be paid to the specifics of implementing the principle of respect for human rights when applying a preventive measure, specifying the grounds for its implementation and the responsibility of law enforcement officers for illegal actions.

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References

[1] Banetka, N. (2022). Police ignorance and (un)reasonable Fourth Amendment exclusion. *Vanderbit Law Review*, 75, 365-405.

[2] Bolotashvili, Z., Holovkov, O., & Burian, I. (2024). Special features of the application of police preventive measures. *Law Journal of Donbass*, 4, 47-53. doi: 10.32782/2523-4269-2023-85-47-53.

[3] Dmytrenko, O.O. (2023). Preventive measures to avoid administrative liability. *International Scientific Journal "Internauka". Series: "Juridical Sciences"*, 8(66), 9-14. doi: 10.25313/2520-2308-2023-8-9069.

[4] Dzafarova, O.V., Shatrava, S.O., & Leschenko, D.O. (2024). Preventive measures in the activities of the Security Service of Ukraine to ensure human rights and freedoms. *Law.ua*, 1, 49-53. doi: 10.32782/LAW.UA.2024.1.8.

[5] Edmond, G. (2024). Trial by cognitive ordeal: Irrational approaches to the opinions of investigators, trial integrity and proof. *Modern Law Review*, 87, 3. 535-569. doi: 10.1111/1468-2230.12848.

[6] Kryvytskyi, Y.V., Chichkan, M.V., Bliakharskyi, Y.S., Chekalyuk, V.V., & Holovko, O.M. (2024). Optimisation of Ukrainian legislation in line with European human rights standards. *Pakistan Journal of Criminology*, 16(3), 879-890. doi: 10.62271/pjc.16.3.879.890.

[7] Lezhnin, K.V. (2022). Standards for ensuring human rights in the activities of the Security service of Ukraine under martial law. *Scientific Notes of Lviv University of Business and Law. Economic Series. Legal Series*, 34, 93-101. doi: 10.5281/zenodo.7105170.

[8] Liashuk, R.M., & Vychavka, V.I. (2024). Legal grounds for surface inspection of persons, things, goods (cargo) and vehicles by personnel of the state border guard service of Ukraine. *Scientific Journal of Lviv State University of Internal Affairs. Law*, 1, 28-34. doi: 10.32782/2311-8040/2024-1-4.

[9] Litvinova, I.F., & Lobay, D. (2022). Peculiarities of a search or inspection of housing or other property of a person under the conditions of maritime state in Ukraine. *Scientific Works of Kyiv Aviation Institute. Series Law Journal "Air and Space Law"*, 4(65), 172-178. doi: 10.18372/2307-9061.65.17055.

[10] Meyer, T., & Sitarman, G. (2023). The national security consequences of the major questions doctrine. *Michigan Law Review*, 122(1), 55-96. doi: 10.36644/mlr.122.1.national.

[11] Morozov, E.E. (2022). Organizational and legal principles of observance of human and civil rights and freedoms during the application of police measures. *Juridical Scientific and Electronic Journal*, 10, 863-866. doi: 10.32782/2524-0374/2022-10/218.

[12] Parayko, M.I. (2023). Peculiarities of conducting a search or inspection of a person's home or other property under martial law. Transcarpathian legal readings. Law as an instrument of stability and development in the face of modern civilizational challenges. In *Materials of the 15th international scientific and practical conference* (pp. 252-255). Lviv, Toruń: Liha-Pres. doi: 10.36059/978-966-397-298-5-144.

[13] Pavlyshyn, O.V., Ustymenko, T.P., Babiuk, M.P., Kaida, N.Ya., & Shkrebets, D.V. (2021). Social responsibility as a performance indicator of public authorities. *Academic Journal of Interdisciplinary Studies*, 10(3), 111-122. doi: 10.36941/AJIS-2021-0068.

[14] Pidbereznykh, I.E, Horbach-Kudria, I.A., Golubytskyi, S.G., Babichev, A.V., & Loshytskyi, M.V. (2024). Administrative-law status of national security agencies. *Revista Juridica Portucalense*, 36, 624-652. doi: 10.34625/issn.2183-2705(36)2024.ic-27.
[15] Prysiazhniuk, O.A. (2025). Some peculiarities of application of administrative coercion measures by law enforcement agencies of Ukraine during martial law. *Uzhhorod National University Herald. Series: Law*, 4(86). doi: 10.24144/2307-3322.2024.86.1.4.7.
[16] Rho, Eu.H., Harrington, M., Zhong, Y., Pryzant, R., Camp, N.P., Jurafsky, D., & Eberhardt, J.L. (2023). Escalated police stops of black man are linguistically and psychologically distinct in their earliest moments. *Proceeding of the National Academy of Sciences of the United States of America*, 120(23), article number e2216162120 doi: 10.1073/pnas.2216162120.
[17] Romashkin, S.V. (2024). Legal analysis of the application of the principles of legal responsibility. Transcarpathian legal readings. Sustainable development and institutional capacity in wartime: National and international legal aspects. In *Materials of the XVI international scientific and practical conference* (pp. 191-194). Lviv, Toruń: Liha-Press. doi: 10.36059/978-966-397-377-7-49.
[18] Scherbakova, G.V. (2022). Typicl violations during a surface check, personal examination and search in cases about drug crime. *Law Journal of Donbass*, 4(81), 191-194. doi: 10.32782/2523-4269-2022-81-4-2-191-194.
[19] Sergiienko, N.A., & Babiak, M.O. (2024). Verification of documents by authorized persons during matrial law: A practical dimension. *Scientific Innovations and Advanced Technologies. Series: Law*, 12(40), 588-603. doi: 10.52058/2786-5274-2024-12(40)-588-603.
[20] Shovkun, Yu.I. (2024). Gaps and shortcomings of regulatory regulation of legal restrictions during public serve. *State and Regions. Series: Law*, 1(83), 58-63. doi: 10.32782/1813-338X-2024.1.8.
[21] Soleimani-Alyar, L., Rezapur, B., & Eslami, M.A. (2024).Comparative study of the victim's fault in civil liability of the police in Iranian and French law. *Discover Global Society*, 2(20). doi: 10.1007/s44282-024-00041-z.
[22] Somina, V.A. (2025). Analogy of law and analogy of statute in administrative proceedings. *Scientific Perspectives*, 4(58), 1431-1440. doi: 10.52058/2708-7530-2025-4(58)-1431-1440.
[23] Thybulnyk, N.Y. (2023). Administrative and preventive measures against modern challenges in the state security sector. *Dnipro Scientific Journal of Public Administration, Psychology, Law*, 1, 162-166. doi: 10.51547/ppp.dp.ua/2023.1.28.
[24] Kovarsky, L.B. (2023). Outcome sensitivy and the constitutional law of criminal procedure. *Indian Law Journal*, 98(2), 429-478.
[25] Ogapde, G. (2024). *Police powers in Ireland. 2-nd edition*. Blomomsburt: Bloomsbury Publishing. doi: 10.5040/9781526527578.ch-001.

Проведення поверхневої перевірки: дотримання вимог в умовах воєнного стану

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Анотація
Превентивні заходи в науковій літературі не є предметом широкого обговорення. Публікації здебільшого присвячені перевірці документів особи, зупиненню транспортного засобу, проникненню до житла чи іншого володіння особи. Актуальність заявленої теми пов'язана з низкою питань, що постають під час практичного застосування поверхневої перевірки, необхідністю вдосконалення положень нормативно-правового регулювання, з огляду на правовий режим обмежень прав людини та перебіг трансформаційних процесів у правоохоронних органах. Метою статті було дослідження принципів поверхневої перевірки як превентивного заходу, що використовують уповноважені суб'єкти в умовах воєнного стану. Методологія дослідження була представлена порівняльно-правовим, герменевтичним, формально-логічним, системно-структурним, аналітико-узагальнювальним методами та методом графічного моделювання. Встановлено, що в чинному законодавстві України наявні суттєві відмінності в обсязі повноважень і процедурах проведення поверхневої перевірки. Зокрема, вони стосуються визначення кола об'єктів перевірки (особа, річ, транспортний засіб, товари), порядку залучення службових собак, умов і меж використання спеціальних засобів. Важливими є й територіальні обмеження, які для прикордонників чітко визначені законодавством (контрольні прикордонні райони, пункти пропуску та контрольні пункти в'їзду-виїзду), натомість для поліцейських таких територіальних меж не встановлено. Додатково зафіксовано відмінності в процедурних етапах перевірки між поліцейськими та військовослужбовцями Державної прикордонної служби України. Виявлено колізії між положеннями законодавчих актів і підзаконних документів, що створює ризик неоднакового правозастосування та потребує комплексного нормативного врегулювання для забезпечення єдиної правозастосовної практики. Проаналізовано міжнародний досвід встановлення відповідальності для уповноважених суб'єктів у неправомірному застосуванні превентивних заходів. Практичне значення роботи полягає в тому, що результати дослідження можуть бути використані для формування та вдосконалення нормативно-правових положень національного законодавства, що регулюють діяльність правоохоронних органів під час застосування превентивних заходів

Ключові слова:
превентивний захід; огляд особи; органи правопорядку; блокпост; відповідність доказів; правила суддів; відповідальність

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Problems of investigating criminal offences related to domestic violence committed by women

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Abstract
The purpose of the study was a theoretical investigation of the concept of female illegality, determination of possible roles of women in criminal acts, including domestic violence, development of effective algorithms for pre-trial investigation of criminal offences related to domestic violence committed by women. The study was based on the decomposition method used to detail possible ways for police officers to receive a message about a criminal offence. This contributed to the systematisation of the investigative situation depending on the method and quality of obtaining information about a criminal offence, namely: 1) receiving a message from one of the family members, 2) receiving information from unauthorised persons. The special legal method of legal hermeneutics was used to analyse legislative acts and court decisions on domestic violence. This enabled, considering the behaviour of women who commit criminal offences, their motivation and relevant court practices, to determine the tasks of priority investigative (search) actions, namely, recording information and material evidence of the connection between domestic violence and the criminal offence committed by a woman. The use of the legal modelling method in the study helped to create an algorithmised procedure for police actions to solve them. As a result of the study of motivational signs of illegal activity of women who commit criminal offences resulting from or related to domestic violence, two types of such women were identified: those who commit criminal offences to stop violence on the part of men (other relatives) and those who commit to strengthen the dominant position of women in the family. A systematic approach was used to study the interdependence between the personal characteristics of women and the development of the investigative situation of the initial stage of pre-trial investigation. There is no methodology for investigating criminal offences related to domestic violence committed by women, which, in turn, leads to an increase in cases of this type of criminal illegality registered annually

Keywords:
crime; criminal offence; pre-trial investigation; tactics; investigative situations

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Introduction

Female criminality is one of the phenomena that is not only widely publicised in the media, but also generates discourse in the scientific sphere, particularly in psychology, sociology, criminology, and anthropology. Criminal offences committed by women are a specific category of socially dangerous actions, which has criminological, socio-psychological, and forensic aspects. The need for scientific research on this topic can be determined by several factors: demographic and statistical aspect – the analysis shows differences in the structure of criminal illegality by gender, women are more likely to commit criminal offences in the sphere of family, domestic or economic relations, less often – violent or against sexual freedom and inviolability; psychological and social determinants – the study of victimism, motivational factors, the influence of social roles and gender stereotypes on illegal behaviour; legal specifics – the need to adapt forensic support for effective investigation, prevention and qualification of criminal offences committed by women.

Cases of criminal offences committed by women preceded by domestic violence are of concern and public outcry. The relevance of this opinion is confirmed by official statistics from the Office of the Prosecutor General of Ukraine (n.d.) from which it can be seen that the commission of criminal offences related to domestic violence by women is not uncommon. Thus, in 2020, women committed 184 criminal offences related to domestic violence, of which 39 were criminal offences, and 145 were crimes; in 2021, respectively, 123 (50/73); in 2022 – 194 criminal offences (108/86); in 2023 – 402 criminal offences (232/170); in 2024 – 611 criminal offences (385/226). Such statistics can be interpreted not only as a threatening rate of increase in cases of criminal misconduct by women, but also as a need to create an effective methodology for investigating both criminal offences and crimes in which the offender is a woman. Of particular relevance is the issue of methodological support for the investigation of the facts of committing criminal offences by women, when such actions are related to domestic violence.

Some manifestations of criminal-illegal behaviour of women are covered in scientific research, but only within the framework of studying the problematic aspects of the investigation of certain types of criminal offences. Thus, Y. Chornous & A. Lisitsky (2025) considered the principles of applying special knowledge during inspections of the scene of criminal offences committed by arson, conducting investigative (search) actions and forensic examinations, considering the gender aspect, the study contains recommendations for an integrated approach in the investigation of this category of crimes committed by women. S. Kniaziev (2025) in his dissertation systematised the methodology of collecting evidence, identifying suspects and algorithms of investigative (search) actions during the investigation of criminal offences committed in the public sector, which can be adapted during the investigation of crimes committed by women in the financial and economic spheres.

For several years now, Ukrainian scholars from various fields, such as criminal law, criminology, criminalistics, psychology, and sociology, have been addressing the issue of combating and investigating domestic violence, both as an administrative offence and a criminal offence. Among them are researchers such as I.A. Botnarenko (2021), who investigated the initial stage of the investigation of domestic violence as a criminal offence; T.V. Ishchenko (2021) devoted her research to the development of methodological recommendations for the investigation of domestic violence, highlighting the areas of actions of law enforcement agencies depending on the form of domestic violence; the procedural aspect of ensuring pre-trial investigation of domestic violence was highlighted by H.K. Teteriatnyk & O.S. Somyk (2023), who focused on the formation of an evidence base, systematic violence, and the application of restrictive prescriptions in accordance with Article 194 of the Criminal Procedure Code of Ukraine[1]. Criminal legal and criminological foundations of countering mental violence, in particular in Ukraine, were studied by H. Sobko (2020), who also outlined both scientific and theoretical and practical approaches to preventing and countering this phenomenon. D. Tychyna (2024) focused on the combination of criminal legal, criminological, and penal enforcement principles in taking measures to prevent domestic violence in Ukraine.

Among other studies, it is appropriate to single out the study by P.R. Vieira *et al*. (2020), who examined the increase in domestic violence during social isolation caused by the COVID-19 pandemic, focusing its results on the role of women as victims of this type of criminal illegality. R. Erbaş (2021) examined the main components of an effective criminal investigation, and the potential obstacles to such an investigation provided for in the ECHR case-law, namely, in cases involving domestic violence, pointing to shortcomings in Turkish Criminal Procedure legislation that had not received an effective investigation. In these studies, the role of women in domestic violence was overwhelmingly considered as the role of the aggrieved party.

The analysis of the state of scientific research and the presented statistics determine the relevance of the research topic and determine the need for its development for practical units of the National Police of Ukraine. That is why the purpose of this study was to determine the state of theoretical support for the

[1] Criminal Procedure Code of Ukraine. (2012, March). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17#Text.

process of pre-trial investigation of this category of criminal proceedings, to determine the role of women in this kind of criminal illegality, and to systematise the most typical investigative situations that arise at the initial stage of the investigation of criminal offences related to domestic violence committed by a woman.

Literature Review

Differences in the behaviour of women and men in the aspect of criminal illegality some studies, in particular by A. Berko *et al*. (2010), C. Kruttschnitt (2016), F. Esposito *et al*. (2020), are explained in terms of a patriarchy system that establishes a gender distribution of social roles and hierarchies, through which behaviour is codified as male or female, functioning in the prevailing system of power relations between the sexes. This is why men are perceived as subjects who are more likely to develop violent behaviour (and are inherently "criminals" or "offenders"), while women are perceived as more fragile and defenceless (hence "victims"). Gender differences in socialisation contribute to greater compliance with social norms and to maintaining a greater distance from risky behaviour in women. Similarly, women are more likely to engage in formal and informal processes of social control and supervision, which are more likely to avoid deviant behaviour. Criminal wrongdoing by women is often underestimated and classified as latent criminal offences, which affects how they are detected and investigated (Leote de Carvalho *et al.*, 2021).

Feminist and gender studies show that women who offend are socially doubly deviant because they deviate from both accepted social norms (breaking the law) and gender norms (which define how women should behave) (Ballinger *et al*., 2007; Giordano & Copp, 2019). This helps to understand the dominant social concepts of masculinity and femininity in law enforcement. Research on gender differences and differences in sentencing by J. Pina Sanchez & L. Harris (2020) found that more severe sentences are generally imposed on male offenders. I. Brunton-Smith *et al*. (2020) explained this situation by the fact that women have responsibilities to care for either children or parents, this is applied as a mitigating factor in sentencing and is included in the list of mitigating factors. This mitigation can affect cases where the conviction falls within the categories, potentially reducing the sentence from imprisonment to a non-custodial sentence. This reduction allows a woman to continue performing her care duties along with punishment (Kane & Minson, 2022). However, this is not true for all types of criminal offences and not for all women's groups. Thus, it is evident that gender also influences how juvenile and criminal justice systems respond to offenders, and much of this attention stems from social expectations about how women should behave and the social position these women occupy in society (Leote de Carvalho *et al*., 2021).

Traditional roles create a situation where men have more power and control in the family structure, both economically and socially. This condition often creates a sense of entitlement and superiority, which leads to the belief that they have the right to assert control over the subordinate sex, especially over women. Meanwhile, women are often expected to remain passive, caring, and submissive. When a man believes that he has the right to power and control in a relationship, he can resort to violent actions. This includes physical violence, emotional manipulation, and economic coercion to maintain power. On the other hand, a woman may be more likely to tolerate or justify violence because she is in a dependent relationship with her husband, who provides her with the resources she needs for life (Anggia, 2024).

Women commit all types of criminal offences, although to a much lesser extent than men, especially in the case of violent torts. Social and economic marginalisation is a significant factor in women's criminal wrongdoing. Criminal records are more stigmatising for women. In court, women are treated as doubly deviant, and their actions are explained by psychopathological terms. Although men are more likely to suffer, for example, from street criminal activity, women show a greater fear of violent acts (Hirtenlehner *et al*., 2020). One of the reasons for this may be the prevalence of domestic crimes committed by men against women (and children) (Heidensohn, 1991; Bailey, 2021).

Young and older female offenders, according to M.J. Leote de Carvalho *et al*. (2021), demonstrate various patterns of delinquency that reflect numerous and ambivalent old and new forms of femininity. The ways of girls and women both to and from offences have their own characteristics. They also reflect how gender is constantly reconfigured and reconstructed over time, in various social and institutional contexts.

According to the Centre for Disease Control (CDC), almost 24% of all relationships experience some level of violence. 50% of cases of domestic violence are related to mutual violence (Men or Women..., 2016). In the other 50% of domestic violence cases, the violence was not mutual. In relationships where the violence was not mutual, almost 70% of the violence was committed by a woman. In other words, in almost 7 out of 10 cases of mutual violence, the perpetrator was a woman. In addition, mutually violent relationships most often led to injuries to women. However, women who engaged in mutually violent behaviour with their male partners were more likely to show a pattern of repeated violence than men. Male violence was more often isolated and unlikely to recur.

D.Yu. Slyusar (2019) and S.Y. Ang & G.A. Mat Saat (2024) identified the main areas of social life where women commit criminal offences: domestic life and the professional sphere. Moreover, in the domestic sphere, women commit more serious criminal offences, mainly murder, which is conditioned by complex

personal relationships such as marriage, family, and neighbourhood relations. Illegal manifestations of women's behaviour are influenced by stereotypes formed by a characteristic microenvironment, and situational ones. The environment of marital and family relations can be characterised by the variability of situations that determine a person's behaviour, including that of women.

I. Serkevych & O. Bronevytska (2020) analysing the psychological structure of women's criminal illegality, came to the conclusion that women commit murders, causing harm to health of various degrees of severity, mainly on the basis of family and domestic conflicts. This is mainly conditioned by the behaviour of victims, whose actions cause aggression on the part of the offender and intentions to cause harmful consequences. This is mainly the behaviour of husbands or cohabitants and children. Cases of aggressive actions against sexual partners (spouse/cohabitant) are associated with problems of material support for the family: the husband is disabled, has housing problems, and is financially unsecured. In addition, a common cause of domestic violence between spouses/cohabitants is rivalry for the dominant position in the family, jealousy, or revenge for certain offensive actions or words. Women of this type are predominantly young, active, highly excitable, sensitive to the actions and opinions of those around them, express their emotions and emotional outbursts through tears, are irritable, and often experience nervous and mental breakdowns, depression, feelings of hopelessness, etc.

S. Walker & A.K. Gill (2019) investigated another motivation for violence on the part of a woman, which is based on family relationships, this is a response to long-term bullying on the part of a husband. Similar to the nature of domestic violence, namely the cumulative manifestation of aggressive behaviour, a woman's attitude to her abuser corresponds to an emotional spiral: anger, suppression, dismissal. When other methods of such release (such as crying) do not help, women, like men, can explode with physical violence. Years of slow accumulation of resentment, over a long period, accumulate female anger.

Summarising the considered approaches, it can be noted that researchers explain gender differences in criminal behaviour in different ways – from the influence of social roles and patriarchal structures to the features of socialisation and stereotypes about femininity and masculinity. The literature notes that women are more likely to commit crimes in the domestic sphere, while men are more likely to commit crimes in the public sphere. Attention is also drawn to the double stigmatisation of female offenders and specific socio-psychological factors of their behaviour. In general, these approaches demonstrate the multidimensional and contradictory scientific view of the problem of women's criminal illegality.

Materials and Methods

The methodological basis of this study consisted of an integrated approach to the analysis of existing approaches to countering and preventing domestic violence, and methods for investigating criminal offences committed by women and those that reflect the gender aspect, and the practice of judicial decisions in relation to criminal offences related to domestic violence. The use of a specific sociological approach allowed analysing the available scientific research on women's illegality.

In order to substantiate typical investigative situations that contribute to the effective algorithmisation of investigations into criminal offences related to domestic violence and committed by women, it was necessary to determine the variability of information received about the criminal offence under investigation, the content of which determines the tasks for the investigator at the initial stage of the investigation. It was the understanding of these possible situations that allowed identifying the order of actions that determines the solution of a specific problem. For this purpose, the decomposition method was used, which helped to determine the algorithm of actions in a specific investigative situation, to determine the interconnection and interdependence of urgent investigative (search) actions, and the systemic and structural method was used to determine the tactics for conducting investigative (search) actions.

To study judicial practice for the period from 2020 to 2024, which are publicly available in the unified state register of court decisions, a special legal method was used. Thus, the empirical basis of the study was made up of materials of court cases (102 court cases), according to which there is opposition to pre-trial investigation at its beginning and there is no information about the connection of a criminal offence with domestic violence. The modelling contributed to the formulation of conclusions and proposals aimed at improving the pre-trial investigation of this category of criminal offences

Results and Discussion

As noted above, global changes taking place in the world, changes in social and moral-traditional vectors of community development lead to a psychoemotional change in the worldview of citizens. Technological progress and social norms have freed women from the obligation to do housework, increasing their participation in both the labour market and the criminal market (Campaniello, 2019; Shen, 2020). The development and implementation of institutions for the protection of women's rights and freedoms has not only opened up an understanding of their value and importance for the establishment of a lawful society, but also opportunities for choosing ways out of violent relationships. Unfortunately, women do not always choose legal means of action. The other side of globalisation processes is the differentiation of society and the de-

struction of stereotypes regarding gender identity, the desire to play a major role in the family, and take care of material well-being.

The changing nature of women's roles in contemporary society encourages women to become more involved in violent and property-based criminal offences (Islam *et al*., 2014). K. Yankova (2014), as a result of a study of female illegality, came to the conclusion that it is the number of criminal offences committed by women for selfish reasons that will increase. This situation is conditioned by the lack of deterrent mechanisms of this kind of illegality, in particular, the social role of women in society. Worldwide, crime is highly masculine, and there is little research on female crime (Streb *et al*., 2022; Nemavhola *et al*., 2024).

Forming the basis of the methodology for investigating contract killings, A. Shulga (2003) noted that a significant number of murders of this category are committed by persons who are related to the victim and they are united by a common life, cohabitation. The researcher, having examined 130 criminal cases (both archival and those that were in production) initiated on the facts of committing murders on the territory of Ukraine for the period from 1994 to 2001, focuses on the fact that in 95% of cases, the clients ordering such killings are women. The goal of women is to get rid of their husbands (7.85%), ex-husbands (10%), and other relatives (5%).

Conclusions of A. Shulga (2003) on the motives of such actions of women are consistent with the results obtained from the analysis of judicial practice (Fig. 1), namely, that they can be divided into two categories: 1) a woman's desire to put an end to domestic violence on the part of her husband (61%); 2) a woman's desire to benefit and take possession of her husband's property (39%). The study also allowed dividing these two groups of motives into subgroups. With regard to the first group, it is appropriate to divide the motives for ending a husband's violent behaviour into: 1.1. violent behaviour by a husband towards his wife (70.5%) and 1.2. violent behaviour by a husband towards children or parents of the husband or wife who live with the couple (29.5%). As for the second group of contract killings commissioned by women, they can also be divided into two subgroups: 2.1. first, those that are conditioned by the desire to enrich themselves (58%) and 2.2. second, those that combine two goals-to enrich themselves and stop violent actions (42%).

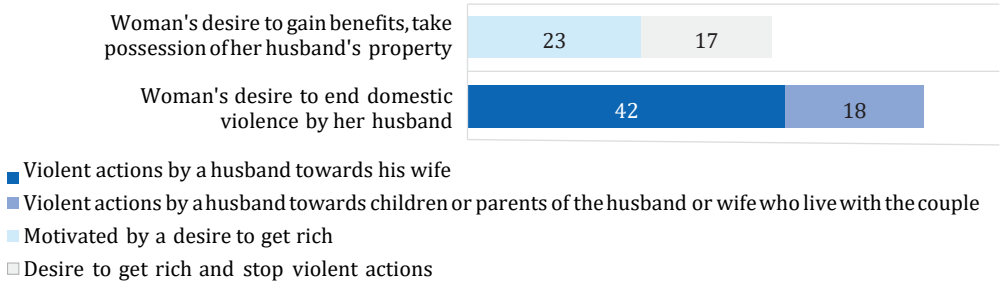

Figure 1. Motives for violent actions of women according to the results of a study of 102 cases for 2020-2024
Source: authors' research

Thus, for an example of the relationship between domestic violence and murder, the materials of court proceedings No. 1-kp-2108/23[1] can be cited, where it was established that the defendant lived with her husband for about 6 years, raising their daughter and jointly owning real estate and funds in bank accounts in the Republic of Serbia. After a series of court sessions that took place during 2019-2020, on the issues of divorce and division of common property, the woman, fearing that her claims for divorce will not be satisfied, which may eventually lead to the deprivation of her parental rights and not receiving material security for residence, decided to commit premeditated murder of her husband. For this purpose, she found someone who agreed to take her husband's life in exchange for a certain reward. The materials of this court case confirm the conclusions in the investigation of D.B. Wexler (2020), namely, that many women who mistreat men are actually motivated by many of the same factors as men who mistreat women. The defendant, instead of finding ways to break off the violent relationship, chose to kill her husband, hoping to single-handedly dispose of the fortune acquired during married life.

Separate consideration should be given to criminal manifestations of women based on domestic relations directed against children. Such actions are mainly due to two factors – "upbringing", that is, punishment for actions that go against the requirements of a woman, and not the desire to perform maternal (guardianship) functions (for example, the murder of a newborn child by a mother).

Analysing the opinions of researchers (Antoschyk, 2014; Aho *et al*., 2017; Karlsson *et al*., 2019),

[1] Sentence of the Pechersk District Court of Kyiv in Case No. 757/10370/23-c. (2023, December). Retrieved from https://reyestr.court.gov.ua/Review/115974684.

women who commit murders of their children can be divided into two categories: 1) women who are characterised by a young age of 18-30 years, are not in a registered marriage, do not work, lead an antisocial lifestyle (abuse of alcohol and drugs), do not have a permanent place of residence; 2) women who are officially married, are in an unstable, tense psycho-emotional state (excitement, fear, physical pain, etc.), stress and depression, mental anomalies. These characteristics under the influence of domestic violence, and such violence can occur in any of the four forms, increase the psychoemotional deviations of a woman, and the motivation of a woman to get rid of a child. Women of this type, based on domestic problems, usually commit illegal actions alone, and such actions are also characterised by serious consequences (Bilenchuk & Pevtsova, 2023; Shackelford *et al*., 2023).

Another area in which women's criminal activity manifests itself is the professional sphere (Becker & McCorkel, 2011; Slyusar, 2019; Tolkach, 2025). That is, an activity in which a woman has a certain free access, or the possibility of such access to material values. Such criminal offences are committed for selfish reasons and in complicity. Women are more likely to commit crimes in mixed gender groups than in all-female groups. However, in cases of bullying, shoplifting, and embezzlement, a higher percentage of women work in exclusively female groups rather than mixed groups. The connection to domestic violence manifests itself in attracting or forcing family members to perform certain illegal actions in order to enrich themselves.

Having examined the illegal role of women as a result or in connection with domestic violence, it is necessary to summarise possible investigative situations. Knowledge of the possible development of events and the availability of relevant criminalistically significant information that arises at the time of receiving information about illegal actions contributes to the timely determination of tactics for pre-trial investigation of such criminal offences. The analysis identified the initial investigative situations of this category of criminal offences. In the simulated case, the police unit received information about the planning of a separate criminal offence (causing bodily harm, abuse of guardianship rights, exploitation of children, murder, etc.), the report states that the participants in the criminal event are a family registered with social services and violent actions were committed by a female person (mother, adult daughter, minor woman). This investigative situation is the most favourable for planning a pre-trial investigation and allows taking a number of operational search measures, conducting secret (investigative) search actions to record evidentiary information. As an example, it is appropriate to cite the materials of court proceedings No. 11-kp/4820/179/20[1], according to which the police were contacted by a witness, with a request to take action against a local resident who has three young children, two of whom she is trying to sell, which she repeatedly stated. The witness also noted that the accused has difficult personal and family circumstances, does not intend to take care of her young son and daughter, and also seeks to enrich herself. The accused spent some time looking for someone to carry out an illegal sale of her young kids (for begging). After receiving this information, law enforcement agencies developed and conducted a covert investigation, namely, monitoring the commission of a crime in the form of an operational purchase of an illegal transaction involving people (two minor children), during which pre-identified funds in the amount of up to UAH 15,000 were used, and a citizen with altered personal data was also involved. Such procedural actions made it possible to record evidentiary information about the crime.

The first priority in such an investigative situation is to interrogate the person who reported information about the criminal event being prepared, after carrying out covert investigative (search) actions – conducting appropriate inspections: the scene of the incident with a focus on the evidence pattern in accordance with the criminal offence committed, examination of technical media and attachments thereto (audio and video recordings) on which the facts and circumstances of the meetings of the persons involved in the criminal proceedings are recorded, examination of items and documents. In the case of using pre-identified money or other items, conduct an examination of the person by taking swabs from the suspect's hands. It is necessary to conduct a search and interrogate the persons involved in order to identify and record both the individual criminal offence and the systematic nature of the violent acts committed by the family member. Given the fact that not all citizens understand what actions relate to domestic violence, the task of the investigator during verbal investigative (search) actions is to explain such actions, explain the illegality in slapping, using obscene language, etc., on the part of the mother (woman, daughter). The corresponding specifics of conducting these nonverbal investigative (search) actions are orientation to traces indicating domestic violence, indicating a combination of two types of criminal illegality.

A separate point should be noted in the correct choice of the investigator of the moment when the suspect is interrogated. The investigator should understand that this kind of criminal illegality does not occur suddenly, but with a pre-thought-out implementation plan and a long-term nature of violent actions, the skills of concealing which such a person has already worked out (Komarynska, 2022). That is why the interrogation

[1] Judgment of the Board of Judges of the Criminal Chamber of the Khmelnytsky Court of Appeal in Case No. 11-kp/4820/179/20. (2020, April). Retrieved from https://reyestr.court.gov.ua/Review/88874612.

of a suspect must be conducted after the main evidence base has been formed, the conclusions of the forensic examination have been obtained, and other participants in the criminal incident have been interrogated.

Otherwise, according to the materials of the court proceedings No. 1-kp/212/526/20[1], "the 102 emergency service "102" received a call from the suspect's sister reporting that the mother of a four-year-old boy was making pornographic films with him. During the pre-trial investigation, it was established that the woman (suspect) had given birth to three children, had given her first child to her grandmother to raise, had been deprived of her parental rights in respect of her second son by a court decision, and had lived with her common-law husband with her third child, who had mental disabilities. One day, the suspect's common-law husband saw the woman lying on the sofa next to her naked son, who was asleep, while she was touching his naked genitals and her own naked genitals with her hands and lips in an indecent manner and filming everything on her mobile phone's digital camera. The man took the suspect's phone and sent the video to the accused's sister, who called the police. During the pre-trial investigation, other pornographic videos involving the accused's young son were also established.

In such cases, during urgent procedural actions, inspections, searches, and interrogations, it is necessary to establish a connection, including family ties, between the injured person and the suspect. It is necessary to establish and record comprehensive information characterising the participants in the criminal offence, the duration of the violent actions, and to establish and prove the circumstances indicating the presence of elements (signs) in the act at least one sign, as defined in Article 1 of the Law of Ukraine "On Preventing and Combating Domestic Violence"[2]. In addition to conducting interrogations, it is important to inspect not only the scene of the incident, but also technical means (computers, mobile phones, electronic storage devices, etc.). In addition, the evidence base will be the conclusions of the conducted forensic examinations.

Information was received about a separate criminal offence (murder, human trafficking, use of a minor child for begging, etc.), but there is no information about the identity of the suspect and the connection of the criminal offence with domestic violence. As shown by the study of criminal proceedings (investigative and judicial practice), this type of situation arises in cases where information about a criminal offence is reported by third parties who have discovered the consequences of violent unlawful actions, and the investigator's task is to identify and establish all elements of the criminal characteristics of a particular criminal offence, identify and record the perpetrators, motives, circumstances and conditions of the offence, and its connection with domestic violence. This situation can be clearly demonstrated on the example of materials of judicial proceedings of judicial proceedings No. 1-kp/185/220/21[3]. Thus, on May 18, 2019, at about 20:00, another quarrel arose between a man and a woman at their place of residence, in connection with the man's disregard for the woman's requests to stop behaving indecently towards her, and attempts to beat her. As a result of the quarrel, the woman pushed her husband away, from which he fell over the threshold into the bedroom face down and did not resist. Taking advantage of the situation, the accused, taking an axe that was in the corridor behind the door, struck the man's head with a butt, which led to death. During the pre-trial investigation, suspicion fell on the wife of the deceased, but the latter denied her participation in the murder, providing information that she was not in the house at the time of the murder. However, during the pre-trial investigation, it was established that the couple lived together for more than 6 years, there were constant quarrels between them, the husband beat her, especially after consuming alcoholic beverages. According to the results of inspections (the scene of the incident, things at the scene, clothes of the suspect, the murder weapon – an axe), questioning witnesses, conducting forensic examinations and an investigative experiment, the woman's guilt was proved.

In such situations, it is a priority for the investigator to identify and overcome opposition to the investigation. The choice and combination of tactics of both communication with the suspect and the tactics of presenting available evidence, demonstrating their relationship, will allow the investigator to convince the woman of the inappropriateness and illogicality of her statement about non-involvement in the criminal event. It is important to strictly observe the stages and stages of questioning, which are preceded by careful preparation.

The analysis of the state of scientific developments and methodological support on women's criminal illegality in Ukraine allows speaking about the trends of its growth and the lack of contemporary forensic methods for investigating such actions. A criminal offence has ceased to be a purely male matter, which causes the development and implementation of effective mechanisms for pre-trial investigation of women's criminal illegal activities and ensuring a policy to counteract such manifestations. Most forensic techniques are

[1] Judgment of the Zhovtnevy District Court of Kryvyi Rih, Dnipropetrovsk Region in Case No. 1-kp/212/526/20. (2020, July). Retrieved from https://reyestr.court.gov.ua/Review/90445611.
[2] Law of Ukraine No. 2229-VIII "On Preventing and Countering Domestic Violence". (2017, December). Retrieved from https://zakon.rada.gov.ua/laws/show/2229-19#top.
[3] Judgment of the Pavlohrad City District Court of Dnipropetrovsk Region in Case No. 1-kp/185/220/21. (2021, December). Retrieved from https://reyestr.court.gov.ua/Review/102099963.

considered "male" (Walsh *et al*., 2020) because they were originally developed and tested on male populations, and their applicability to explaining why women committed crimes may be limited. Research shows that while male and female offenders do not completely differ in what explains their crimes, the gender life that people live may play a role in understanding illegal behaviour. The study confirmed the conclusions of researchers (Serkevych, 2020; Liem, 2023) that the study of women's criminal activity carries significant social tasks that require solutions and significant and decisive actions on the part of law enforcement agencies. Such activities, in addition to the characteristics inherent in criminal-illegal activities in general, also have accompanying destructive consequences for society, affecting the institution of the family and the development of an illegal worldview among minors who will introduce such experience into their families in adult life.

Conclusions

The study showed that despite the increase in criminal offences committed by women, in general and in particular those related to domestic violence, the scientific support for the pre-trial investigation of such criminal offences remains insufficient. The lack of published scientific developments on the tactics of investigating criminal offences committed by women makes it difficult to obtain more accurate results. The latest scientific research in the field of forensic support for the investigation of criminal acts committed by women in Ukraine dates back to 2014, which, in turn, cannot consider contemporary achievements not only in criminology, but also in related sciences such as psychology, criminology, and sociology. The use of developments and experience of foreign researchers helps to determine only the general directions of such activities, without considering the moral, ethical and socio-economic factors of Ukraine, which undoubtedly have an impact on the development of criminal behaviour. Accordingly, the issue of methodological support for the process of pre-trial investigation of criminal offences related to domestic violence committed by women remains relevant for practical units.

The analysis of judicial and investigative practice determined the area and conditionality of investigative (search) actions at the beginning of the pre-trial investigation. Thus, the pre-trial investigation of criminal offences related to domestic violence committed by women has its own tactical features, which primarily concern the conduct of verbal investigative (search) actions, namely interrogation, the use of tactical techniques, the choice of which is based on: the "role" of women in criminal -unlawful actions – a woman resists violence or protects another family member by committing a criminal offence, or a woman herself is the person who commits systematic violent acts against family members and, in this connection, commits another criminal offence; the motivation for criminal acts – hostile or mercenary motives, or a combination of such motives.

Nonverbal investigative (search) actions should be aimed at establishing evidentiary information, which will allow clearly distinguishing between the facts of illegal actions and, in accordance with each of these facts, identifying and recording evidence. It is precisely the element of "time of commission" of each individual unlawful act that affects the quality of information provided by participants in the pre-trial investigation – over time, individual events lose their significance and negative perception by victims, and the stigmas present in society encourage victims to blame themselves for such actions.

Results obtained can be argued that the starting point of such an investigation is the identity of the suspect, namely a woman. The study of personal characteristics of the latter, lifestyle, social status, level of education, psychophysiological characteristics is necessary for establishing causal relationships and interdependence of domestic violence and other criminal offences. The process of pre-trial investigation is complicated, firstly, by the psychoemotional state of a woman who can both suffer from domestic violence for a long time and commit it herself (especially in terms of violent actions against children), and secondly, it is caused by the stigmatisation of society, including police officers, which leads to errors in choosing the tactics of conducting individual procedural actions. That is why the process of tactical support for pre-trial investigations of this type of criminal action requires further in-depth study, followed by the development of methodological recommendations for police practitioners on how to act in various investigative situations.

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References

[1] Aho, A.L., Remahl, A., & Paavilainen, E. (2017). Homicide in the western family and background factors of a perpetrator. *Scandinavian Journal of Public Health*, 45(5), 555-568. doi: 10.1177/1403494817705587.

[2] Ang, S.Y., & Mat Saat, G.A. (2024). Sociological factors of women criminality: A systematic review. *Malaysian Journal of Society and Space*, 20(3). doi: 10.17576/geo-2024-2003-10.

[3] Anggia, F. (2024). *The role of traditional gender norms in domestic violence*. Retrieved from https://insights.lifemanagementsciencelabs.com/gender-norms-in-domestic-violence.
[4] Antoschyk, A. (2014). *The initial stage of investigation in the case of the killing of a newborn child by the mother*. (PhD dissertation, National Academy of Internal Affairs, Kyiv, Ukraine).
[5] Bailey, C. (2021). Fear of crime among caribbean women in university: A qualitative exploration using the free association narrative method. *Violence Against Women*, 28(3-4), 851-871. doi: 10.1177/10778012211008993.
[6] Ballinger, A. (2007). Masculinity in the dock: Legal responses to male violence and female retaliation in England and Wales, 1900-1965. *Social & Legal Studies*, 16(4), 459-481. doi: 10.1177/0964663907082731.
[7] Becker, S., & McCorkel, J.A. (2011). The gender of criminal opportunity: The impact of male co-offenders on women's crime. *Feminist Criminology*, 6(2), 79-110. doi: 10.1177/1557085110396501.
[8] Berko, A., Erez, E., & Globokar, J.L. (2010). Gender, crime and terrorism: The case of Arab/Palestinian women in Israel. *British Journal of Criminology*, 50(4), 670-689. doi: 10.1093/bjc/azq013.
[9] Bilenchuk, P., & Pevtsova, O. (2023). Conceptual principles for preventing serial murders. *Law Review of Kyiv University of Law*, 1, 144-148. doi: 10.36695/2219-5521.1.2023.29.
[10] Botnarenko, I.A. (2021). Domestic violence: The initial stage of the investigation. *Forensic Bulletin*, 36(2), 82-92. doi: 10.37025/1992-4437/2021-36-2-82.
[11] Brunton-Smith, I., Pina-Sánchez, J., & Li, G. (2020). Re-assessing the consistency of sentencing decisions in cases of assault: Allowing for within-court inconsistencies. *The British Journal of Criminology*, 60(6), 1438-1459. doi: 10.1093/bjc/azaa030.
[12] Campaniello, N. (2019). Women in crime. *IZA World of Labor*, 105. doi: 10.15185/izawol.105.v2.
[13] Chornous, Y., & Lisitsky, A. (2025). *The use of special knowledge during the investigation of criminal offences committed by arson: Scientific foundations and practical recommendations*. Kharkiv: Pravo.
[14] Erbaş, R. (2021). Effective criminal investigations for women victims of domestic violence: The approach of the ECtHR. *Women's Studies International Forum*, 86, article number 102468. doi: 10.1016/j.wsif.2021.102468.
[15] Esposito, F., Matos, R., & Bosworth, M. (2020). Gender, vulnerability and everyday resistance in immigration detention: Women's experiences of confinement in a Portuguese detention facility. *International Journal for Crime, Justice and Social Democracy*, 9(3), 5-20. doi: 10.5204/ijcjsd.v9i3.1588.
[16] Giordano, P.C., & Copp, J.E. (2019). Girls' and women's violence: The question of general versus uniquely gendered causes. *Annual Review of Criminology*, 2(1), 167-189. doi: 10.1146/annurev-criminol-011518-024517.
[17] Heidensohn, F.M. (1991). Women as perpetrators and victims of crime. *British Journal of Psychiatry*, 158(S10), 50-54. doi: 10.1192/s000712500029199x.
[18] Hirtenlehner, H., Farrall, S., & Groß, E. (2023). Are women of all age groups equally affected by the shadow of sexual assault? Evidence from Germany. *European Journal of Criminology*, 20(3), 834-855. doi: 10.1177/14773708231156330.
[19] Ishchenko, T. (2021). *Investigation of domestic violence*. (PhD dissertation, National Academy of Internal Affairs, Kyiv, Ukraine).
[20] Islam, M., Banarjee, S., & Khatun, N., (2014). Theories of female criminality: An assessment. *International Journal of Criminological and Sociological Theory*, 7(1).
[21] Kane, E., & Minson, S. (2022). Analysing the impact of being a sole or primary carer for dependent relatives on the sentencing of women in the Crown Court, England and Wales. *Criminology & Criminal Justice*, 23(3), 366-386. doi: 10.1177/17488958221087490.
[22] Karlsson, L.C., Antfolk, J., Putkonen, H., Amon, S., da Silva Guerreiro, J., de Vogel, V., Flynn, S., & Weizmann-Henelius, G. (2019). Familicide: A systematic literature review. *Trauma, Violence, & Abuse*, 22(1), 83-98. doi: 10.1177/1524838018821955.
[23] Kniaziev, S. (2025). *Theory and practice of investigating criminal offences in Ukraine's budgetary sphere*. (Doctoral dissertation, Interregional Academy of Personnel Management, Kyiv, Ukraine).
[24] Komarynska, Y. (2022). Criminalistics characterisation of criminal offences related to domestic violence. *Scientific Journal of the National Academy of Internal Affairs*, 27(3). doi: 10.56215/0122273.55.
[25] Kruttschnitt, C. (2016). The politics, and place, of gender in research on crime. *Criminology*, 54(1), 8-29. doi: 10.1111/1745-9125.12096.
[26] Leote de Carvalho, M.J., Duarte, V., & Gomes, S. (2021). Female crime and delinquency: A kaleidoscope of changes at the intersection of gender and age. *Women & Criminal Justice*. doi: 10.1080/08974454.2021.1985044.
[27] Liem, M. (2023). Filicide and familicide. In T.K. Shackelford (Ed.), *Encyclopedia of domestic violence* (pp. 1-14). Cham: Springer. doi: 10.1007/978-3-030-85493-5_1935-1.
[28] Men or women: Who usually instigates domestic violence? (2016). Retrieved from https://surl.li/pclwgf.
[29] Nemavhola, M., Melapi, T.A.S., Hoffman, D., & Gerber-Schutte, O. (2024). Social, forensic, and clinical correlates

in female observandi referred for non-violent crimes. *South African Journal of Psychiatry*, 30. doi: 10.4102/sajpsychiatry.v30i0.2209.
[30] Office of the Prosecutor General of Ukraine. (n.d.). Retrieved from https://gp.gov.ua/ua/posts/statistika.
[31] Pina Sanchez, J., & Harris, L. (2020). Sentencing gender? Investigating the presence of gender disparities in Crown Court sentences. *Criminal Law Review*, 2020(1), 3-28.
[32] Serkevych, I., & Bronevytska, O. (2020). The analysis of psychological structure of female crime. *Law Review of Kyiv University of Law*, 1, 323-327. doi: 10.36695/2219-5521.1.2020.64
[33] Shackelford, T.K. (2023). *Encyclopedia of domestic violence*. Cham: Springer International Publishing. doi: 10.1007/978-3-030-85493-5.
[34] Shen, A. (2020). Women who participate in illegal pyramid selling: Voices from female rural migrant offenders in China. *Asian Journal of Criminology*, 15(2), 91-107. doi: 10.1007/s11417-019-09295-y.
[35] Shulga, A. (2003). *Fundamentals of technigue of assassination investigation*. (PhD dissertation, National Academy of Internal Affairs, Kyiv, Ukraine).
[36] Slyusar, D.Yu. (2019). The concept, essence and features of female crime. *Scientific Bulletin of Uzhgorod National University*, 55(2), 107-109.
[37] Sobko, H. (2020). *Criminal law and criminological basis for combating mental violence*. (Doctoral dissertation, State Research Institute of the Ministry of Internal Affairs of Ukraine, Kyiv, Ukraine).
[38] Streb, J., Lutz, M., Dudeck, M., Klein, V., Maaß, C., Fritz, M., & Franke, I. (2022). Are women really different? Comparison of men and women in a sample of forensic psychiatric inpatients. *Frontiers in Psychiatry*, 13, article number 857468. doi: 10.3389/fpsyt.2022.857468.
[39] Teteriatnyk, H.K., & Somyk, O.S. (2023). Some issues of proof in the investigation of domestic violence. *Juridical Scientific and Electronic Journal*, 2, 580-582. doi: 10.32782/2524-0374/2023-2/137.
[40] Tolkach, A.M. (2025). Female crime: Challenges of today. *Analytical and Comparative Jurisprudence*, 2, 901-904. doi: 10.24144/2788-6018.2025.02.133.
[41] Tychyna, D. (2024). *Criminal-legal, criminological and criminal-executive principles of domestic violence prevention in Ukraine*. (Doctoral dissertation, National Academy of Internal Affairs, Kyiv, Ukraine).
[42] Vieira, P.R., Garcia, L.P., & Maciel, E.L.N. (2020). Social isolation and the rise in domestic violence: What does this reveal to us? *Revista Brasileira de Epidemiologia*, 23. doi: 10.1590/1980-549720200033.
[43] Walker, S., & Gill, A.K. (2019). Women who kill: Examining female homicide through the lens of honour and shame. *Women's Studies International Forum*, 75, article number 102247. doi: 10.1016/j.wsif.2019.102247.
[44] Walsh, A., Wells, J., & Gann, S.M. (2020). The female offender. In *Correctional assessment, casework, and counseling* (pp. 403-418). Cham: Springer. doi: 10.1007/978-3-030-55226-8_19.
[45] Wexler, D.B. (2020). When women abuse men: What we now know about female intimate partner violence. *Partner Abuse*, 11(4), 415-436. doi: 10.1891/pa-2020-0026.
[46] Yankova, K.G. (2014). Current understanding of criminalistic characteristics of crimes against life and health of person had committed by women. *Paradigm of Knowledge*, 1(1).

Проблеми розслідування кримінальних правопорушень, пов'язаних із домашнім насильством, вчинених жінками

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Анотація
Метою статті було теоретичне дослідження поняття жіночої протиправності, визначення можливих ролей жінки в кримінально караних діях, зокрема домашньому насильстві, розроблення дієвих алгоритмів досудового розслідування кримінальних правопорушень, пов'язаних із домашнім насильством, учинених особами жіночої статі. Здійснене дослідження ґрунтувалося на використанні методу декомпозиції – для деталізації можливих способів отримання поліцейськими повідомлення про вчинене кримінальне правопорушення. Це сприяло систематизації слідчих ситуацій залежно від способу та якості отримання інформації про кримінальне правопорушення, а саме: 1) надходження повідомлення від одного із членів родини; 2) надходження інформації від сторонніх осіб. Спеціально-юридичний – метод юридичної герменевтики було використано для аналізу законодавчих актів і судових рішень з питань домашнього насильства. Зазначене, з огляду на поведінку жінок, які вчиняють кримінальні правопорушення, їх мотивацію, відповідні судові практики, дало змогу визначити завдання першочергових слідчих (розшукових) дій, а саме фіксацію інформації та матеріальних доказів зв'язку домашнього насильства з учиненим жінкою кримінальним правопорушенням. Використання в дослідженні методу правового моделювання надало можливість розробити алгоритмізований порядок дій поліцейських для їх вирішення. За результатами здійсненого дослідження мотиваційних ознак протиправної діяльності жінок, які вчиняють кримінальні правопорушення, що є наслідком або пов'язані з домашнім насильством, було визначено два типи таких жінок: ті, які вчиняють кримінально протиправні дії з метою припинення насильства з боку чоловіків (інших родичів), і ті, які вчиняють такі дії з метою посилення панівного становища жінки в родині. Системний підхід використано для вивчення взаємозалежності між особистісними характеристиками жінок і формуванням слідчої ситуації початкового етапу досудового розслідування. У межах дослідження констатовано брак методики розслідування кримінальних правопорушень, пов'язаних із домашнім насильством, які вчиняють жінки, що своєю чергою призводить до збільшення кількості зареєстрованих щороку випадків такого роду кримінальної протиправності

Ключові слова:
злочин; кримінальний проступок; досудове розслідування; тактика; слідчі ситуації

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Problems of harmonising the national legislation of the Central Asian States with international standards for combating human trafficking

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Abstract
The aim of the study was to analyse the degree to which the national legislation of the Central Asian states complies with international norms and standards on combating human trafficking. The research used systemic, formal-legal and comparative-legal methods, which ensured a comprehensive examination of international legal standards and national mechanisms for countering human trafficking. It was established that all countries have formally implemented the triad of elements "act – means – purpose of exploitation" enshrined in the Palermo Protocol, yet the level of institutional implementation of the standards differs significantly. It was found that the most comprehensive model of counteraction has been created in Kazakhstan, Kyrgyzstan and Uzbekistan, where national commissions and victim protection mechanisms operate, whereas in Tajikistan and Turkmenistan, despite the existence of basic regulatory acts, the system of measures for victim protection is characterised by fragmentation and insufficient institutional coordination, which limits the effectiveness of the practical implementation. The study established that the effectiveness of national legislation in the field of combating human trafficking in the Central Asian states differs substantially depending on the degree of institutional cohesion and the quality of victim identification procedures. In Kazakhstan, the number of officially registered victims remains at the level of about two dozen cases annually, whereas in Kyrgyzstan and Uzbekistan it increased by more than 50% in 2021-2023, which reflects heightened institutional sensitivity and improved inter-agency coordination. At the same time, the analysis revealed a low level of "conversion" of identified cases into criminal prosecution – only 10-20% of cases reach the courts, which indicates the need to strengthen the integration of the processes of identification, protection, and justice. The findings of the research can be used to optimise national mechanisms for identifying and protecting victims of human trafficking, including the development of standardised protocols for inter-agency cooperation and the integration of data into official statistics

Keywords:
international obligations; labour exploitation; criminal prosecution; victim identification; inter-agency cooperation

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Introduction

In the context of globalisation and intensive transnational migration, human trafficking is becoming a systemic challenge to international security, which makes the problem particularly relevant for the Central Asian states. The region, located at the crossroads of migration routes, simultaneously functions as countries of origin, transit, and destination for victims of exploitation (Office on Drugs and Crime of the United Nations, 2024). However, despite accession to the main international instruments of the United Nations, the practice of the implementation in Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, and Turkmenistan remains inconsistent and fragmented. The vagueness of criminal-law definitions of human trafficking, the absence of unified procedures for victim identification and protection, as well as weak inter-agency coordination, lead to a gap between international obligations and the effectiveness of national counter-trafficking mechanisms.

The analysis of contemporary academic research in the field of combating human trafficking shows that the key issues remain institutional effectiveness, normative harmonisation and international cooperation. A. Akisheva (2025) emphasised the need for deeper implementation of international standards into the national legislation of the Central Asian countries, especially regarding the protection of women and girls from violence. The author noted that, despite the formal accession of states to the main international conventions, the absence of effective mechanisms for institutional adaptation significantly limits the practical impact. This points to a structural problem – insufficient coordination between legislative and executive bodies, which directly affects the process of identifying and protecting victims of human trafficking.

A contribution to the theoretical understanding of global cooperation in the fight against human trafficking was made by A. Akanbi (2020), who showed that international cooperation remains fragmented due to the lack of unified protocols and weak coordination between regional mechanisms. The researcher concluded that, despite the existence of an extensive normative architecture created by United Nations structures and other international institutions, the real effectiveness of these mechanisms depends on the political will of national governments. The author identified a significant gap between declarative obligations and the actual capacities of states in terms of criminal prosecution of offenders and victim protection, which reflects one of the systemic problems of global governance.

The work of A. Bekmagambetov *et al.* (2024) is devoted to the analysis of the adoption of the new Law of the Republic of Kazakhstan No. 110-VIII ZRK "On Combating Human Trafficking"[1] as an important stage in the development of national legal policy. The authors established that, despite the introduction of modern standards of criminal prosecution and victim protection, the mechanisms for implementing the law are still insufficiently aligned with international protocols. The need is noted for the development of clear procedural regulations, the strengthening of inter-agency cooperation and the conduct of systematic monitoring of law-enforcement practice. A critical perspective on the conceptual foundations of the problem was contributed by R. Broad & N. Turnbull (2024), who argue that interpreting human trafficking through the category of "modern slavery" distorts the legal essence of the phenomenon, reducing it to a moral-political narrative. The authors showed that such rhetoric complicates the work of international actors, who face conceptual and political constraints when forming policy. The study underlines the need for precise legal discourse and institutional clarity to enhance the effectiveness of global governance in this sphere.

In the study by S.R. Gilani *et al.* (2022), the legal mechanisms for countering trafficking in persons and women were examined. The authors found that, despite the existence of international treaties providing basic protection standards, at the national level guarantees for women victims remain inadequate. The research emphasises the importance of integrating human rights organisations into the criminal justice system, which is particularly relevant for the Central Asian states. H.D. Genç (2024) analysed the role of international organisations in the dissemination of legal norms in Central Asia. The author concluded that the process of "norm diffusion" is selective in nature and depends on the degree of political openness and administrative capacity of specific states. The results obtained show that without a stable institutional infrastructure, even the most well-designed international initiatives do not achieve practical results. The work of B.Z. Kyzdarbekova & A.K. Orazbekova (2022) focuses on the criminal-law framework for countering human trafficking in Kazakhstan. The authors revealed gaps in the criminalisation of related forms of exploitation, including forced labour and sexual exploitation, which indicates partial inconsistency between national norms and the provisions of the Palermo Protocol. In addition, the authors noted the absence of unified criteria for victim identification, which leads to a low proportion of cases reaching the courts.

A. Mehra & G. Sharif (2024) concentrate on international cooperation mechanisms, including extradition and information exchange. The researchers concluded that the effectiveness of these mechanisms increases significantly when criminal legislation is harmonised

[1] Law of the Republic of Kazakhstan No. 110-VIII ZRK "On Combating Human Trafficking". (2024, July). Retrieved from https://adilet.zan.kz/rus/docs/Z2400000110.

and joint investigation teams are created. The authors argue that only a comprehensive combination of legal, administrative and diplomatic instruments can deliver real results in combating human trafficking. In the study by R. Orlovskyi *et al.* (2023), a criminological analysis of the activities of transnational organised groups engaged in human trafficking was conducted. The authors established those traditional investigative methods do not correspond to the complexity of the organisational structures of such groups, which reduces the effectiveness of law-enforcement agencies. As a solution, the improvement of investigative techniques is proposed, including the use of digital trace analysis and the development of cross-border cooperation. Thus, the review of academic sources shows the existence of significant gaps in the practical implementation of international legal standards for combating human trafficking in the Central Asian states. Insufficient institutional coordination, the absence of unified procedures for victim identification and limited judicial mechanisms remain the most vulnerable elements of the regional system.

The aim of the research was to analyse the degree of harmonisation of the national legal systems of the Central Asian states with international standards for combating human trafficking. The objectives of the study were: to conduct a comparative analysis of the norms of the national legislation of Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, and Turkmenistan in the context of the compliance with the provisions of international instruments regulating the fight against human trafficking; to assess institutional and procedural aspects – the practice of detection, investigation, and prosecution of human trafficking cases; and to identify directions for improving legislation and mechanisms of interstate cooperation in order to ensure compliance with international standards and increase the effectiveness of countering human trafficking in the Central Asian region.

Materials and Methods

The study of international legal standards for combating human trafficking was based on a comprehensive approach, combining the analysis of regulatory legal acts at universal and regional levels. The systemic method made it possible to consider human trafficking as a multidimensional socio-legal phenomenon located at the intersection of criminal, labour, migration, and human rights regulation. The formal-legal method was used to analyse the content and structure of key international treaties that laid the foundations of the modern legal regime for combating human trafficking, which established universal standards for the definition of human trafficking, criminal liability and international cooperation in this sphere. In addition, attention was paid to the labour dimension of the problem, reflected in the instruments of the International Labour Organisation, such as the Forced Labour Convention No. 29[1] and the Protocol of 2014 to the Forced Labour Convention[2], which define states' international obligations to eliminate forced labour and protect the rights of victims. Of substantial importance was also the Worst Forms of Child Labour Convention No. 182[3], which expanded the legal framework for combating exploitation by enshrining the protection of children from the worst forms of labour as an element of the international system for combating human trafficking.

The comparative-legal method was used to compare the structure and content of national regulatory legal acts with universal international standards, as well as to identify differences in the approaches of the Central Asian states to the criminal-law definition of human trafficking, victim protection measures and preventive mechanisms. Within the framework of the research, the following were analysed: the Law of the Republic of Kazakhstan No. 110-VIII ZRK "On Combating Human Trafficking"[4], the Law of the Republic of Tajikistan No. 1096 "On Combating Human Trafficking and Providing Assistance to Victims of Human Trafficking"[5], and the Law of the Republic of Uzbekistan No. ZRU-633 "On Combating Human Trafficking"[6]. These regulatory acts, as well as the Law of the Kyrgyz Republic No. 55 "On the Prevention and Combating of Human Trafficking"[7], form the basis of national strategies for combating human trafficking.

Furthermore, attention was given to the Law of Turkmenistan "On Combating Human Trafficking"[8], as well as to the criminal codes of the republics of the

[1] Forced Labour Convention No. 29. (1930, June). Retrieved from https://www.ohchr.org/en/instruments-mechanisms/instruments/forced-labour-convention-1930-no-29.
[2] Protocol of 2014 to the Forced Labour Convention. (2014, November). Retrieved from https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/ILO_P_029.pdf.
[3] Worst Forms of Child Labour Convention No. 182. (1999, June). Retrieved from https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312327.
[4] Law of the Republic of Kazakhstan No. 110-VIII ZRK "On Combating Human Trafficking". (2024, July). Retrieved from https://adilet.zan.kz/rus/docs/Z2400000110.
[5] Law of the Republic of Tajikistan No. 1096 "On Combating Human Trafficking and Providing Assistance to Victims of Human Trafficking". (2014, July). Retrieved from https://continent-online.com/Document/?doc_id=31598509.
[6] Law of the Republic of Uzbekistan No. ZRU-633 "On Combating Human Trafficking". (2020, August). Retrieved from https://lex.uz/ru/docs/4953319.
[7] Law of the Kyrgyz Republic No. 55 "On the Prevention and Combating of Human Trafficking". (2005, March). Retrieved from https://cbd.minjust.gov.kg/1650/edition/1213498/ru.
[8] Law of Turkmenistan "On Combating Human Trafficking". (2016, July). Retrieved from https://continent-online.com/Document/?doc_id=34689902#pos=0;0.

region – the Criminal Code of the Kyrgyz Republic[1] and the Criminal Code of the Republic of Kazakhstan[2], which establish the elements of crimes related to human trafficking. The Criminal Code of the Republic of Uzbekistan[3], the Criminal Code of the Republic of Tajikistan[4] and the Criminal Code of Turkmenistan[5] were also examined. This approach made it possible to assess the degree of harmonisation of criminal-law norms with the provisions of the Palermo Protocol[6].

The comparative analysis was carried out on the basis of the following criteria: the existence and content of special articles establishing criminal liability for human trafficking (Article 128 of the Criminal Code of the Republic of Kazakhstan; Article 171 of the Criminal Code of the Kyrgyz Republic; Article 135 of the Criminal Code of the Republic of Uzbekistan; Article 130 of the Criminal Code of the Republic of Tajikistan; Article 129 of the Criminal Code of Turkmenistan); the completeness of implementation of the triad of elements provided for in Article 3 of the Palermo Protocol ("acts – means – purpose of exploitation"); the scope of forms of exploitation enshrined in national legislation (sexual, labour and child exploitation, slavery, removal of organs, etc.); and the existence of specialised institutions and secondary mechanisms ensuring the implementation of criminal-law norms.

Results

International legal standards for combating human trafficking. The evolution of international legal regulation of human trafficking reflects the process by which the global community has come to recognise the complex nature of this phenomenon and the need for its legal regulation at a universal level. The first international agreements concerning human trafficking date back to the late nineteenth – early twentieth centuries, when the problem of the so-called white slave became a matter of broad public and legal concern in Europe and immigration countries. These early agreements were aimed primarily at countering the sexual exploitation of women and girls, while at the same time reflecting the moral-conservative and patriarchal attitudes of the era. The agreements did not cover other forms of exploitation and viewed human trafficking mainly through the prism of morality and protection of public order rather than from the standpoint of human rights.

After the First World War, the regulation of human trafficking acquired an institutional character within the framework of the League of Nations. The International Convention for the Suppression of the Traffic in Women and Children[7] and the International Convention for the Suppression of the Traffic in Women of Full Age[8] for the first time enshrined international obligations to combat cross-border forms of exploitation and trafficking in women. However, these conventions still maintained a narrow focus on sexual exploitation and prostitution. The application remained limited, and the absence of a unified monitoring mechanism reduced the effectiveness of the implementation of the provisions. In this period, the foundations of international cooperation were laid and the formation of a concept began which recognised the need for criminal prosecution of acts related to the exploitation of human beings.

A new stage in the evolution of international regulation began with the creation of the United Nations, which adopted the Convention for the Suppression of the Traffic in Persons and of the Exploitation of the Prostitution of Others[9]. This instrument became an important step towards systematising international efforts: it established the obligation of states to suppress activities related to the organisation, facilitation, and financing of human trafficking and criminalised the exploitation of the prostitution of others. However, the definition of human trafficking contained in the 1949 Convention was limited and did not include other forms of exploitation such as labour exploitation, the use of forced labour outside the sexual sphere, or the exploitation of children in production or criminal activities. As a result, the instrument became a transitional but not systemic stage in the development of international legal regulation, retaining its orientation towards moral and ethical categories rather than a comprehensive approach to the protection of victims' rights.

[1] Criminal Code of the Kyrgyz Republic. (2017, February). Retrieved from https://learningpartnership.org/sites/default/files/resources/pdfs/Kyrgyzstan-Criminal-Code-2017-Kyrgyz.pdf.
[2] Criminal Code of the Republic of Kazakhstan. (2014, July). Retrieved from https://adilet.zan.kz/rus/docs/K1400000226.
[3] Criminal Code of the Republic of Uzbekistan. (1994, September). Retrieved from https://online.zakon.kz/Document/?doc_id=30421110&pos=4;-107#pos=4;-107.
[4] Criminal Code of the Republic of Tajikistan. (1998, May). Retrieved from https://continent-online.com/Document/?doc_id=30397325.
[5] Criminal Code of Turkmenistan. (1997, June). Retrieved from https://www.refworld.org/legal/legislation/natlegbod/1997/ru/150185.
[6] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18.
[7] International Convention for the Suppression of the Traffic in Women and Children. (1921, September). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=VII-3&chapter=7&clang=_en.
[8] International Convention for the Suppression of the Traffic in Women of Full Age. (1933, October). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=VII-5&chapter=7&clang=_en.
[9] Convention for the Suppression of the Traffic in Persons and of the Exploitation of the Prostitution of Others. (1949, December). Retrieved from https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-suppression-traffic-persons-and-exploitation.

With the adoption of the Palermo Protocol[1], supplementing the United Nations Convention against Transnational Organised Crime[2], a universal legal definition of human trafficking was established for the first time. According to Article 3 of the Palermo Protocol, human trafficking is defined through a combination of three elements – acts (recruitment, transportation, transfer, harbouring or receipt of persons), means (threat or use of force, coercion, abduction, fraud, deception, abuse of power or of a position of vulnerability, giving or receiving of payments or benefits) and the purpose of exploitation, which may take the form of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude, or the removal of organs. A special rule is established for minors: the fact of consent is irrelevant, and the use of means of influence is not required, which reflects the priority of child protection in international law.

The Palermo Protocol has become not only the source of the definition of human trafficking but also an instrument for the unification of national legal systems. It obliges States Parties to introduce changes into the national legislation aimed at criminalising human trafficking in all its forms, establishing effective sanctions and creating mechanisms for the protection and rehabilitation of victims. A distinctive feature of the instrument lies in its comprehensive logic expressed in the triad of state obligations – the "3P approach" (Prosecution, Protection, Prevention), which has become the basis of international anti-crime policy in the twenty-first century (Table 1).

Table 1. The triad of states' international obligations to combat human trafficking (3P approach)

Direction	Content	Main measures and instruments
Prosecution	Criminalisation of human trafficking, criminal prosecution of offenders, effective investigation of crimes	Introduction of criminal liability for all forms of human trafficking Development of mechanisms for international cooperation (extradition, mutual legal assistance, exchange of operational information) Ensuring punishment of offenders
Protection	Ensuring the rights and security of victims, preventing re-victimisation	Creation of procedures for identifying victims Ensuring access to justice and to medical, psychological and social assistance Repatriation of victims with observance of the principle of voluntariness
Prevention	Eliminating the causes of human trafficking, reducing population vulnerability	Socio-economic programmes and awareness-raising campaigns Combating poverty, gender inequality, low levels of education and corruption Training civil servants and control over labour migration

Sources: Palermo Protocol[3], United Nations Convention against Transnational Organised Crime[4]

A contribution to the formation of the modern international system for combating human trafficking has been made by the International Labour Organisation, which from its inception has paid attention to issues of forced labour and the exploitation of vulnerable categories of workers. In 1930, the Forced Labour Convention No. 29[5] was adopted, enshrining states' obligation to prohibit all forms of forced or compulsory labour and to provide for criminal and administrative liability for its use. The Convention became a basic instrument for the protection of labour rights and provided a foundation for the formation of national legislation aimed at combating forced exploitation.

The modern development of the norms of the International Labour Organisation is associated with the adoption of the Protocol of 2014 to the Forced Labour Convention[6], which strengthened measures to prevent and eliminate new forms of forced labour, including in the context of globalisation and labour migration. The Protocol provides for the obligation of states to identify vulnerable population groups, create systems for the protection and rehabilitation of victims, ensure access to justice and compensatory mechanisms, and to conduct monitoring and evaluation of the effectiveness of national measures. An innovation is the emphasis on a comprehensive approach: not only criminal

[1] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18.
[2] United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/viewdetails.aspx?src=treaty&mtdsg_no=xviii-12&chapter=18&clang=_en.
[3] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18.
[4] United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/viewdetails.aspx?src=treaty&mtdsg_no=xviii-12&chapter=18&clang=_en.
[5] Forced Labour Convention No. 29. (1930, June). Retrieved from https://www.ohchr.org/en/instruments-mechanisms/instruments/forced-labour-convention-1930-no-29.
[6] Protocol of 2014 to the Forced Labour Convention. (2014, November). Retrieved from https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/ILO_P_029.pdf.

prosecution, but also social, economic and educational support for victims, which is consistent with the principles of the "3P approach" of the Palermo Protocol.

International instruments regulating the exploitation of children are also of importance. The Worst Forms of Child Labour Convention No. 182[1] enshrined the concept of child exploitation as one of the forms of human trafficking, including labour exploitation, participation in armed conflicts, sexual violence and forced criminal activities. It provides for states' obligations to effectively eradicate the worst forms of child labour, to introduce preventive measures, and to ensure the recovery and social reintegration of affected children. The Worst Forms of Child Labour Convention No. 182 in combination with the Palermo Protocol[2] forms the universal normative basis of the global regime for combating human trafficking and establishes a system of state obligations for the prevention, suppression, and punishment of this crime.

Thus, the standards of the International Labour Organisation complement and reinforce the provisions of the Palermo Protocol, ensuring the integration of labour, child and socio-economic aspects into the system of international legal regulation of human trafficking. Taken together, these instruments create a legal and institutional basis for the unification of national legal systems, form a comprehensive approach to the identification and protection of victims and contribute to the establishment of mechanisms of interstate cooperation aimed at eliminating all forms of human exploitation. Effective implementation of these norms requires the harmonisation of national legislation, the development of specialised procedures and monitoring systems, which is particularly relevant for countries with high levels of migration mobility and socio-economic vulnerability of the population, such as the Central Asian states.

Comparative analysis of the national legislation of the Central Asian states. The conduct of a comparative analysis of the national legislation of the Central Asian states appears to be a necessary stage of the research in order to assess the degree of implementation of international legal standards in the field of combating human trafficking. Despite the general declarative support for international initiatives, the states of the region differ in the level of institutional maturity, the availability of specialised strategies and the comprehensiveness of approaches to the protection of victims' rights (Chu, 2025).

In the Republic of Kazakhstan, the regulation of issues related to human trafficking is carried out by the Criminal Code of the Republic of Kazakhstan[3], where Article 128 ("Human trafficking") establishes criminal liability for the recruitment, transportation, transfer, harbouring or receipt of a person for the purpose of exploitation. The notes to the Article clarify that exploitation includes the use of a person for prostitution, forced labour, slavery or other forms of servitude, as well as the removal of organs or tissues. Thus, Kazakh legislation has implemented the key elements provided for in Article 3 of the Palermo Protocol[4], namely the triad of "acts – means – purpose of exploitation". In addition, issues of prevention and victim protection are regulated by the Law of the Republic of Kazakhstan "On Combating Human Trafficking"[5], which provides for the creation of a national coordination mechanism for assisting victims and measures to raise public awareness and train law-enforcement officers.

In the Kyrgyz Republic, provisions aimed at combating human trafficking are enshrined in the Criminal Code of the Kyrgyz Republic[6], where Article 171 defines human trafficking as the recruitment, transportation, transfer, harbouring or receipt of a person using threats, force, fraud, abuse of power or of a position of vulnerability for the purpose of exploitation. These provisions are also enshrined in the Law of the Kyrgyz Republic No. 55[7], which establishes the state system of measures for the prevention, detection, and suppression of human trafficking and for the protection and rehabilitation of victims. The Law defines the powers of state bodies, establishes the obligation to develop and implement state programmes in the field of combating human trafficking, regulates issues of interaction between public authorities and international and non-governmental organisations (NGOs), and provides for social protection, temporary shelter and assistance to victims (Imankulov, 2021).

[1] Worst Forms of Child Labour Convention No. 182. (1999, June). Retrieved from https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312327.
[2] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18.
[3] Criminal Code of the Republic of Kazakhstan. (2014, July). Retrieved from https://adilet.zan.kz/rus/docs/K1400000226.
[4] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18.
[5] Law of the Republic of Kazakhstan No. 110-VIII ZRK "On Combating Human Trafficking". (2024, July). Retrieved from https://adilet.zan.kz/rus/docs/Z2400000110.
[6] Criminal Code of the Kyrgyz Republic. (2017, February). Retrieved from https://learningpartnership.org/sites/default/files/resources/pdfs/Kyrgyzstan-Criminal-Code-2017-Kyrgyz.pdf.
[7] Law of the Kyrgyz Republic No. 55 "On the Prevention and Combating of Human Trafficking". (2005, March). Retrieved from https://cbd.minjust.gov.kg/1650/edition/1213498/ru.

Furthermore, Resolution of the Government of the Kyrgyz Republic No. 227[1] approved the National Action Plan to Combat Human Trafficking for 2022-2025, which details mechanisms of inter-agency cooperation and victim protection. Overall, the criminal-law definition of human trafficking complies with international standards; however, the practical implementation of the provisions on victim protection requires institutional strengthening. First, in the Kyrgyz Republic there is no unified inter-agency mechanism for the identification of victims of human trafficking, which leads to under-reported statistics of registered cases and limited access of victims to rehabilitation services. The National Action Plan to Combat Human Trafficking for 2022-2025 envisages the creation of such mechanisms, but the process of the introduction remains fragmented. Secondly, despite the formal enshrining of the right of victims to free legal aid and temporary shelter, in practice these measures are applied to a limited extent due to insufficient funding for specialised centres and the absence of trained personnel in law-enforcement bodies (Bear Trust, 2024).

In the Republic of Uzbekistan, the fight against human trafficking is regulated by the Law of the Republic of Uzbekistan No. ZRU-633 "On Combating Human Trafficking"[2] and Article 135 of the Criminal Code of the Republic of Uzbekistan[3]. The Law provides a comprehensive definition of human trafficking, structured in line with the Palermo Protocol[4]: acts (recruitment, transportation, transfer), means (coercion, fraud, abuse of power) and purposes of exploitation (sexual, labour, slavery, removal of organs). Unlike other states of the region, Uzbekistan has introduced an institutional model of counteraction, providing for The National Commission for Combating Human Trafficking and Forced Labour, which coordinates the implementation of measures on suppression, protection, and prevention. The Law also directly prohibits the use of forced labour, which is consistent with the provisions of the Forced Labour Convention No. 29[5] and the Protocol of 2014 to the Forced Labour Convention[6], ratified by Uzbekistan in 2016.

In the Republic of Tajikistan, provisions regulating human trafficking are contained in Article 130 of the Criminal Code of the Republic of Tajikistan[7], where human trafficking is defined as the recruitment, transportation, transfer, harbouring or receipt of a person for the purpose of exploitation. The definition covers the use of a person in slavery, forced labour, prostitution, armed conflicts and the removal of organs or tissues. In addition, the Law of the Republic of Tajikistan No. 1096 "On Combating Human Trafficking and Providing Assistance to Victims of Human Trafficking"[8] establishes the foundations of state policy in this sphere, including the creation of temporary accommodation centres and the provision of medical and legal assistance to victims.

In Turkmenistan, criminal liability for human trafficking is established in Article 129 of the Criminal Code of Turkmenistan[9], where human trafficking is understood as acts of recruitment, transportation, transfer or harbouring of a person using fraud, violence, or the threat of violence for the purpose of exploitation. The statutory definition largely reproduces the provisions of the Palermo Protocol[10], but its application is limited by the absence of detailed secondary legislation and mechanisms of inter-agency cooperation. Turkmenistan has also adopted the Law of Turkmenistan "On Combating Human Trafficking"[11], which enshrines the principles of cooperation between state bodies and civil society; however, unlike Uzbekistan and Kazakhstan, the legislation does not contain clear provisions on the provision of social and legal assistance to victims (Table 2).

[1] Resolution of the Government of the Kyrgyz Republic No. 227 "On National Action Plan to Combat Human Trafficking for 2022-2025". (2022, April). Retrieved from https://cbd.minjust.gov.kg/159175/edition/1164358/ru.
[2] Law of the Republic of Uzbekistan No. ZRU-633 "On Combating Human Trafficking". (2020, August). Retrieved from https://lex.uz/ru/docs/4953319.
[3] Criminal Code of the Republic of Uzbekistan. (1994, September). Retrieved from https://online.zakon.kz/Document/?doc_id=30421110&pos=4;-107#pos=4;-107.
[4] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18.
[5] Forced Labour Convention No. 29. (1930, June). Retrieved from https://www.ohchr.org/en/instruments-mechanisms/instruments/forced-labour-convention-1930-no-29.
[6] Protocol of 2014 to the Forced Labour Convention. (2014, November). Retrieved from https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/ILO_P_029.pdf.
[7] Criminal Code of the Republic of Tajikistan. (1998, May). Retrieved from https://continent-online.com/Document/?doc_id=30397325.
[8] Law of the Republic of Tajikistan No. 1096 "On Combating Human Trafficking and Providing Assistance to Victims of Human Trafficking". (2014, July). https://continent-online.com/Document/?doc_id=31598509.
[9] Criminal Code of Turkmenistan. (1997, June). Retrieved from https://www.refworld.org/legal/legislation/natlegbod/1997/ru/150185.
[10] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18.
[11] Law of Turkmenistan "On Combating Human Trafficking". (2016, July). Retrieved from https://continent-online.com/Document/?doc_id=34689902#pos=0;0.

Table 2. Adaptation of international standards for combating human trafficking (3P approach) in the national legislation of the Central Asian states

State	Prosecution	Protection	Prevention
Kazakhstan	Criminal liability is enshrined in Article 128 of the Criminal Code; the definition corresponds to the structure "act – means – purpose of exploitation"; sanctions are introduced for trafficking in organs and forced labour	The Law of the Republic of Kazakhstan No. 110-VIII ZRK establishes the creation of a national coordination mechanism for assisting victims and guarantees access to shelters and free legal aid	Educational and media campaigns are envisaged, staff training is conducted; measures to reduce the vulnerability of migrants are included
Kyrgyzstan	Article 171 of the Criminal Code fully reflects the triad of elements; punishment covers labour, sexual and child exploitation and the removal of organs	Protection mechanisms are provided for in the National Action Plan to Combat Human Trafficking for 2022-2025, but there is no unified inter-agency identification mechanism or adequate funding for assistance centres	Preventive measures are described in a declarative manner; these measures are implemented selectively with the support of international organisations
Uzbekistan	Article 135 of the Criminal Code and the Law of the Republic of Uzbekistan, No. ZRU-633 implement the provisions of the Palermo Protocol; The National Commission for Combating Human Trafficking and Forced Labour has been established	Temporary accommodation centres and rehabilitation programmes have been introduced; access to legal and medical assistance is ensured	Educational programmes and campaigns to prevent forced labour, especially in the agricultural sector, are actively implemented
Tajikistan	Article 130 of the Criminal Code and the Law of the Republic of Tajikistan No. 1096 provide for criminal liability and define forms of exploitation, including participation in armed conflicts	The Law establishes guarantees of victim protection, including temporary accommodation, medical and legal assistance	National programmes focus on informing the population and preventing labour exploitation of migrants
Turkmenistan	Article 129 of the Criminal Code and the Law of Turkmenistan "On Combating Human Trafficking" enshrine the main elements of the definition of human trafficking in accordance with the Palermo Protocol	General principles of assistance are provided, but detailed procedures and secondary legislation are lacking	Preventive measures are mainly normative and declarative, without systemic implementation

Source: compiled by the author based on the Law of the Republic of Kazakhstan No. 110-VIII ZRK[1], Law of the Republic of Tajikistan No. 1096[2], Law of the Republic of Uzbekistan No. ZRU-633[3], Law of Turkmenistan "On Combating Human Trafficking"[4], Criminal Code of the Kyrgyz Republic[5], Criminal Code of the Republic of Kazakhstan[6], Criminal Code of the Republic of Uzbekistan[7], Criminal Code of the Republic of Tajikistan[8], Criminal Code of Turkmenistan[9]

Overall, the comparative analysis shows that in all Central Asian states the definition of human trafficking in national criminal law is consistent with the universal definition laid down in the Palermo Protocol[10], including the triad of elements "acts – means – purpose of exploitation".

Differences in the scope of forms of exploitation covered become apparent when comparing the content of the special articles of the criminal codes of the states of the region. Thus, in Kazakhstan Article 128 of the Criminal Code of the Republic of Kazakhstan, in Uzbekistan Article 135 of the Criminal Code of the Republic of Uzbekistan, and in Tajikistan Article 130 of the Criminal Code of the Republic of Tajikistan enshrine a wide range of forms of exploitation. These include sexual and labour exploitation, use in slavery and servitude, involvement of children in criminal activity and the removal of organs or tissues. Such extended regulation makes it possible to implement the key elements of

[1] Law of the Republic of Kazakhstan No. 110-VIII ZRK "On Combating Human Trafficking". (2024, July). https://adilet.zan.kz/rus/docs/Z2400000110.
[2] Law of the Republic of Tajikistan No. 1096 "On Combating Human Trafficking and Providing Assistance to Victims of Human Trafficking". (2014, July). https://continent-online.com/Document/?doc_id=31598509.
[3] Law of the Republic of Uzbekistan No. ZRU-633 "On Combating Human Trafficking". (2020, August). Retrieved from https://lex.uz/ru/docs/4953319.
[4] Law of Turkmenistan "On Combating Human Trafficking". (2016, July). Retrieved from https://continent-online.com/Document/?doc_id=34689902#pos=0;0.
[5] Criminal Code of the Kyrgyz Republic. (2017, February). Retrieved from https://learningpartnership.org/sites/default/files/resources/pdfs/Kyrgyzstan-Criminal-Code-2017-Kyrgyz.pdf.
[6] Criminal Code of the Republic of Kazakhstan. (2014, July). Retrieved from https://adilet.zan.kz/rus/docs/K1400000226.
[7] Criminal Code of the Republic of Uzbekistan. (1994, September). Retrieved from https://online.zakon.kz/Document/?doc_id=30421110&pos=4;-107#pos=4;-107.
[8] Criminal Code of the Republic of Tajikistan. (1998, May). Retrieved from https://continent-online.com/Document/?doc_id=30397325
[9] Criminal Code of Turkmenistan. (1997, June). Retrieved from https://www.refworld.org/legal/legislation/natlegbod/1997/ru/150185.
[10] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18.

Article 3 of the Palermo Protocol[1], including the structure "acts – means – purpose of exploitation".

By contrast, the legislation of Kyrgyzstan and Turkmenistan is characterised by a narrower scope. Article 171 of the Criminal Code of the Kyrgyz Republic formally reproduces the triad of elements but covers a limited list of forms of exploitation, focusing mainly on sexual and labour exploitation. Similarly, Article 129 of the Criminal Code of Turkmenistan includes the basic elements of the definition of human trafficking but does not contain detailed references to such forms as the involvement of minors, the removal of organs or exploitation in armed conflicts. This indicates the need for further clarification and expansion of the normative content in order to ensure compliance with international standards. It creates a gap between the formal existence of criminal liability and the actual capacity of state bodies to identify victims, ensure the protection and prevent re-exploitation.

Institutional and procedural aspects of the implementation of legislation. The effectiveness of national legislation in the field of combating human trafficking is determined not only by the degree of its compliance with international standards but also by the specific features of its institutional and procedural implementation. The existence of formally progressive norms does not guarantee the effective application without sustainable mechanisms of inter-agency cooperation, professional training of personnel and adequate resource support. In the Central Asian states, there are significant differences in the level of development of the institutional infrastructure responsible for identifying, protecting and rehabilitating victims of human trafficking and in the effectiveness of procedures ensuring the criminal prosecution of offenders and the prevention of this phenomenon (Izbasova *et al.*, 2021). The effectiveness of national mechanisms for the identification of victims is one of the key indicators of the practical implementation of international legal standards in the field of combating human trafficking. Figure 1 presents the dynamics of the number of officially identified victims of human trafficking in the Central Asian countries for 2021 and 2023.

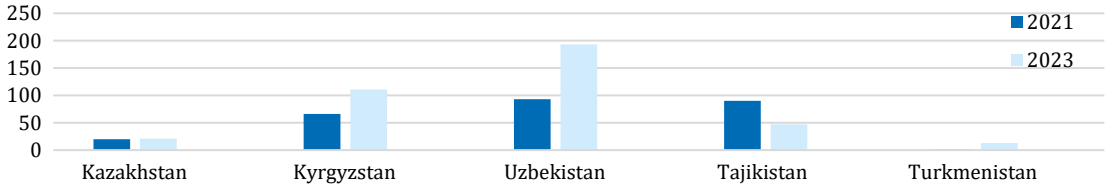

Figure 1. Number of identified victims of human trafficking (officially registered), 2021 and 2023
Source: compiled by the author based on Office on Drugs and Crime of the United Nations (2024)

The analysis of the data presented shows three main trends. First, in Kazakhstan there is a stable but low level of victim identification – about two dozen cases annually. Such statistical stagnation indicates limited institutional capacity in the field of primary identification and insufficient inter-agency coordination. Formally, Kazakhstan has an extensive regulatory framework and specialised structures, but the effectiveness of the work remains limited due to resource shortages, fragmented databases and weak integration of NGO efforts into state mechanisms.

Secondly, the dynamics in Kyrgyzstan and Uzbekistan demonstrate an increase in institutional sensitivity to the problem. In Kyrgyzstan, the number of identified victims has doubled, which is associated with active support from international organisations, the introduction of mobile teams and the operation of hotlines. This growth indicates an improvement in the system's capacity to detect and record previously invisible forms of exploitation, especially internal and labour exploitation. A similar trend is observed in Uzbekistan, where the number of identified victims more than doubled between 2021 and 2023. This result reflects institutional reforms in the previous years, including the creation of The National Commission for Combating Human Trafficking and Forced Labour, the standardisation of investigation procedures and the expansion of training programmes for social service workers. The increase in statistics in this case should be considered a sign of institutional consolidation rather than an increase in actual criminality. Classic criminological studies emphasise that an increase in the number of registered crimes is often a consequence of improved detection, expansion of the powers of law-enforcement bodies and greater effectiveness of registration procedures. In particular, W.G. Skogan (1977) and D.H. Bayley (1994) stressed that the intensification of law-enforcement activity leads to higher official figures regardless of changes in the real level of crime. At the same time, Tajikistan shows the opposite trend – a significant decrease in the

[1] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000, November). Retrieved from https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18.

number of officially identified victims. Possible reasons include limited access to vulnerable groups, a reduction in international projects that previously ensured primary identification, and differences in recording methodology (Khamzin *et al.*, 2022). In conditions of resource scarcity and weak coordination between state and non-governmental structures, the real number of victims significantly exceeds the official data. Particular attention should be paid to Turkmenistan, for which reliable and publicly available statistics are lacking. The absence of transparent data does not allow an objective assessment of the effectiveness of national measures and is an indicator of institutional closedness.

Thus, the number of identified victims of human trafficking reflects not so much the prevalence of trafficking as the institutional activity and capacity of the state to recognise and record cases of exploitation. In countries where inter-agency information exchange has been established and standardised identification protocols have been introduced (Uzbekistan, partially Kyrgyzstan), the indicators are higher; where procedures are fragmented or purely formal (Kazakhstan, Tajikistan), statistics remain low or decline. On average in the region, only 10-20% of identified cases progress to the stage of criminal prosecution (Office on Drugs and Crime of the United Nations, 2024). The reasons remain the shortage of trained investigators, the absence of unified protocols of interaction between the police and social services, and the lack of funds for supporting victims during the investigation process.

Consequently, achieving sustainable results requires not only improved detection but also the strengthening of links between identification, protection, and justice. Optimisation of national referral mechanisms, integration of NGO data into official statistics and the development of regional standards for recording victims will make monitoring more comparable and transparent. A scientifically grounded assessment of progress in combating human trafficking is possible only when normative harmonisation is combined with institutional accountability and the regular publication of reliable statistical data, which should become a priority of regional policy and international cooperation.

Discussion

The results of the conducted research are consistent with the conclusions of A. Akanbi (2020), who emphasised that the effectiveness of international mechanisms to counter human trafficking depends primarily on the degree of legal harmonisation and coordination of actions between states. The author's study notes that despite the existence of universal instruments such as the Palermo Protocol and the United Nations Convention against Transnational Organised Crime, there remains a significant disparity in the level of the implementation. The analysis by A. Akanbi demonstrates that countries with a developed legal system and stable law enforcement institutions show a higher level of compliance with obligations, whereas states with transition economies face difficulties in implementing provisions on victim protection and international cooperation. The results obtained in this research confirm this conclusion: universal standards create a basis for the unification of legislation, yet the effectiveness is directly linked to the institutional capacity of participating states.

Similar observations are contained in the work of K. Tanwar & S. Mishra (2025), who examined international legal mechanisms for combating the trafficking of women and children. The authors noted that a key weakness of modern anti-crime strategies lies in the imbalance between criminal prosecution and victim protection, particularly in developing countries. The analysis highlights that most states concentrate on suppression, while paying insufficient attention to prevention and rehabilitation of victims, which contradicts the holistic logic of the "3P approach". The findings of the present research confirm these conclusions, demonstrating that international instruments have significantly strengthened the humanitarian component of the anti-trafficking system, thereby balancing the priorities of criminal and social response.

Y. Dandurand (2024) concluded that the international legal effectiveness of combating human trafficking is determined not only by the existence of treaty provisions but also by the quality of international cooperation in the areas of information exchange, extradition and joint investigations. The author's study notes that the Palermo Protocol has become not only a codification instrument but also a political and legal benchmark for the formation of a unified global cooperation architecture. At the same time, the authors point out that cooperation mechanisms often remain declarative due to differences in national procedural standards and limited resources of transnational institutions. This research confirms the conclusion of Y. Dandurand, revealing that the practical implementation of the provisions of international conventions requires not only legal adaptation but also institutional strengthening of competent bodies, which is especially important for the Central Asian states where human trafficking is closely linked to labour migration.

The results of the comparative analysis of the national legislation of the Central Asian states confirm that all the countries studied have formally implemented the key elements of the Palermo Protocol, including the triad "acts – means – purpose of exploitation". These conclusions are supported by the work of D. Esson *et al.* (2023), who noted that the states of the region demonstrate formal compliance with international standards in criminal law provisions, although the level of institutional maturity and effectiveness of victim protection mechanisms varies. At the same time, convergence with the obtained results is observed in relation to Kazakhstan and Uzbekistan, where a more

developed institutional infrastructure and the presence of specialised bodies coordinating measures to prevent and suppress human trafficking can be seen. Meanwhile, the results of the analysis show that in Kyrgyzstan, Tajikistan, and Turkmenistan the practical implementation of victim protection and prevention measures remains limited. This observation is consistent with the findings of J. Kaye *et al.* (2019), who emphasised that in countries with less developed institutional structures, the introduction of effective inter-agency mechanisms and ensuring victims' access to rehabilitation services face systemic difficulties. In particular, Kyrgyzstan lacks a unified victim identification mechanism, which coincides with the conclusions of the authors.

In Uzbekistan, an institutional model for combating human trafficking has been implemented through the creation of the National Commission for Combating Trafficking in Persons and Forced Labour. This model ensures coordination of the activities of state bodies and international partners, which is confirmed by the findings of N. Mai *et al.* (2021). At the same time, the authors note the need to strengthen the integration of social and legal support for victims, especially in cases of labour and sexual exploitation of migrants, which corresponds with the observations concerning the wide coverage of forms of exploitation in the legislation of Uzbekistan and Kazakhstan.

The analysis of the findings of the study of institutional and procedural aspects of the implementation of national legislation in the field of combating human trafficking shows that the existence of formally progressive norms does not guarantee the effective application without sustainable mechanisms of inter-agency interaction and adequate resource support. The data obtained on the dynamics of victim identification in the Central Asian countries confirm the conclusions of K. Bryant & T. Landman (2020), who note that the effectiveness of anti-trafficking measures depends primarily on the organisational cohesion of state bodies and the integration of efforts with the civil sector. The research demonstrates that growth in the number of identified cases often reflects improved institutional coordination rather than an increase in crime, which coincides with the observed trends in Uzbekistan and Kyrgyzstan.

The findings of the research in Kazakhstan, characterised by a stable but low level of victim identification, are consistent with the conclusions of Y. Buribayev & Zh. Khamzina (2023), who point to limited institutional capacity, fragmented databases and weak integration of NGOs into state mechanisms. At the same time, a discrepancy is revealed between the number of registered cases and the number of criminal prosecutions, which reflects insufficient conversion of institutional activity into practical results, which is also confirmed by the authors' data on gaps in inter-agency cooperation and staff training. Comparison with the research by F. Farhana (2021) shows that international recommendations and law enforcement standards, including investigation procedures and victim protection, require adaptation to national conditions in order to improve effectiveness.

In particular, a high level of formal regulatory framework without proper integration with local social services and the police does not ensure sufficient protection for victims, which is confirmed by the observed trends in Tajikistan and Kazakhstan. Thus, the results of the research demonstrate agreement with the authors' conclusions regarding the key role of institutional cohesion, procedural standards and NGO participation, while indicating specific regional differences in the implementation of legislation.

Conclusions

The conducted analysis of the evolution of international legal regulation of human trafficking has shown that the formation of the modern system of countering this phenomenon represents the result of a long historical process, during which humanity has moved from the moral-ethical and fragmentary regulation of the nineteenth-twentieth centuries to the creation of a universal legal regime based on human rights protection norms. The adoption of the Palermo Protocol became a key stage in institutionalising states' international obligations, defining the legal content of the concept of "human trafficking" and introducing a comprehensive "3P approach" aimed at criminalisation, victim protection and the elimination of the causes of exploitation.

The analysis demonstrated that all Central Asian states have formally implemented the triad of elements "act – means – purpose of exploitation" in the criminal codes, which indicates legal harmonisation with international norms. At the same time, institutional indicators of the implementation of these norms differ. Kazakhstan, Kyrgyzstan, and Uzbekistan demonstrate the highest degree of systematisation: in those states, specialised laws on combating human trafficking are in force, national commissions and coordination mechanisms for assisting victims have been created, temporary shelter centres and rehabilitation programmes are functioning. This confirms the transition from a declarative level to an institutionalised response model. In Tajikistan and Turkmenistan, legal regulation of combating human trafficking remains predominantly criminal-law-oriented, with insufficient development of prevention and victim protection mechanisms. In Turkmenistan, the specialised law reproduces the provisions of the Palermo Protocol but does not contain detailed procedures for assistance, while Tajikistan, despite having a sector-specific law, faces problems with resource provision for support centres.

The analysis of institutional and procedural aspects of the implementation of national legislation in the field of combating human trafficking allows a number of academic and practical conclusions to be drawn. The

effectiveness of national mechanisms is determined not only by formal compliance with international standards, but also by the ability of state bodies to ensure timely and comprehensive victim identification, inter-agency coordination and adequate resource provision. The dynamics of the number of officially identified victims in the Central Asian countries show significant variation: from a stable but low level in Kazakhstan to a more than two-fold increase in Uzbekistan and Kyrgyzstan, which reflects differing levels of institutional cohesion and interaction between governmental and non-governmental structures.

Comparison of the data on the number of identified cases with indicators of criminal case initiation shows a low level of conversion of institutional activity into real law enforcement outcomes – only 10-20% of cases reach the stage of criminal prosecution. The main reasons remain the shortage of qualified personnel, the absence of unified protocols of interaction between law enforcement and social services, as well as insufficient funding for victim support processes. The results obtained confirm the need for a comprehensive approach to improving the effectiveness of national legislation in the field of combating human trafficking, combining regulatory harmonisation, development of institutional infrastructure, integration of NGO data and ensuring inter-agency cooperation.

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Conflict of Interest

None.

References

[1] Akanbi, A. (2020). Assessing the effectiveness of global and international cooperation in tackling human trafficking. *Journal of Global Social Sciences*, 1(4), 75-90.

[2] Akisheva, A. (2025). Questions of harmonization with international legal and policy standards on violence against women and girls in Central Asia. *International Journal of Discrimination and the Law*. doi: 10.1177/13582291251327140.

[3] Bayley, D.H. (1994). *Police for the future*. Oxford: Oxford University Press. doi: 10.1093/oso/9780195091168.001.0001.

[4] Bear Trust. (2024). *Project report: Combatting child trafficking and gender-based violence in Kyrgyzstan*. Retrieved from https://surl.li/jrwhqg.

[5] Bekmagambetov, A., Tabuldenov, A., Garashova, L., & Ismagulova, A. (2024). Adoption of the law on combating human trafficking – a new milestone in the development of the legal policy of the Republic of Kazakhstan. *Scientific Herald of Uzhhorod University. Series "Physics"*, 56, 1837-1845. doi: 10.54919/physics/56.2024.183so7.

[6] Broad, R., & Turnbull, N. (2024). The global governance problem with framing human trafficking as "modern slavery": The experiences of international actors in human trafficking policymaking. *International Criminology*, 4, 358-370 doi: 10.1007/s43576-024-00146-0.

[7] Bryant, K., & Landman, T. (2020). Combatting human trafficking since Palermo: What do we know about what works? *Journal of Human Trafficking*, 6(2), 119-140. doi: 10.1080/23322705.2020.1690097.

[8] Buribayev, Y., & Khamzina, Z. (2023). Trafficking and exploitation of labor migrants: Analysis of the situation in Kazakhstan. *Bulletin of Kazakh National Pedagogical University named after Abai Series Jurisprudence*, 73(3), 40-55. doi: 10.51889/2959-6181.2023.73.3.006.

[9] Chu, T.V. (2025). International cooperation on human trafficking in some countries in Southeast Asia. *Journal of Foreign Studies*, 41(2), 184-195. doi: 10.63023/2525-2445/jfs.ulis.5387.

[10] Dandurand, Y. (2024). Criminalizing human trafficking has not made a difference: A law enforcement failure. *Journal of Human Trafficking*, 10(2), 383-387. doi: 10.1080/23322705.2024.2303266.

[11] Esson, D., Ansie, V., & Ameke, T. (2023). Human trafficking interventions (HTI): A rapid documentary analysis of Central Asia region's (CAR) efforts. *Ilomata International Journal of Social Science*, 4*(*2), 221-236. doi: 10.52728/ijss.v4i2.726.

[12] Farhana, F. (2021). Punishment of criminals of trafficking in persons: Legal perspective on international guidelines and Indonesian practices. *International Journal of Criminology and Sociology*, 10, 675-679. doi: 10.6000/1929-4409.2021.10.79.

[13] Genç, H.D. (2024). International organisations and norm diffusion: The case of UNODC in Central Asia. In R. Urinboyev (Ed.), *The political economy of Central Asian law: A law and society analysis* (pp. 79-111). Cham: Palgrave Macmillan. doi: 10.1007/978-3-031-55341-7_4.

[14] Gilani, S.R., Khan, I., & Ali, A. (2022). Human trafficking and international legal responses: The case of combating human and women trafficking. *Pakistan Journal of Social Research*, 4(3), 89-96. doi: 10.52567/pjsr.v4i03.689.

[15] Imankulov, T. (2021). Criminal Code of the Kyrgyz Republic of February 2, 2017 No. 19 as a threat to the national security of the Kyrgyz Republic. *Bulletin of Science and Practice*, 7(7), 250-262. doi: 10.33619/2414-2948/68/32.
[16] Izbasova, A.B., Tlepbergenov, O.N., Rakhmetova, T.A., Konysbay, B.M., & Bazilova, A.A. (2021). Legal regulation of human trafficking issues in the field of public security. *Bulletin of the Kazakh National University. Series Legal*, 100(4), 63-71. doi: 10.26577/JAPJ.2021.v100.i4.08.
[17] Kaye, J., Millar, H., & O'Doherty, T. (2019). Exploring human rights in the context of enforcement-based anti-trafficking in persons responses. In J. Winterdyk & J. Jones (Eds.), *The Palgrave international handbook of human trafficking* (pp. 601-621). Cham: Springer. doi: 10.1007/978-3-319-63058-8_36.
[18] Khamzin, A., Buribayev, Y., & Sartayeva, K. (2022). Prevention of human trafficking crime: A view from Kazakhstan and Central Asian countries. *International Journal of Criminal Justice Sciences*, 17(1), 34-53.
[19] Kyzdarbekova, B.Z., & Orazbekova, A.K. (2022). To the question of criminal legal support of counteraction to human trafficking. *Bulletin of the Institute of Legislation and Legal Information of the Republic of Kazakhstan*, 3(70), 110-118. doi: 10.52026/2788-5291_2022_70_3_110.
[20] Mai, N., Macioti, P.G., Bennachie, C., Fehrenbacher, A.E., Giametta, C., Hoefinger, H., & Musto, J. (2021). Migration, sex work and trafficking: The racialized bordering politics of sexual humanitarianism. *Ethnic and Racial Studies*, 44(9), 1607-1628. doi: 10.1080/01419870.2021.1892790.
[21] Mehra, A.V., & Sharif, G. (2024). Legal framework and international cooperation in combatting human trafficking. *International Journal for Multidisciplinary Research*, 6(2). doi: 10.36948/ijfmr.2024.v06i02.18087.
[22] Office on Drugs and Crime of the United Nations. (2024). *Global report on trafficking in persons*. Retrieved from https://www.unodc.org/unodc/en/data-and-analysis/glotip.html.
[23] Orlovskyi, R., Us, O., & Shevchuk, V. (2023). Human trafficking committed by transnational organised groups: Criminal law and criminalistic means combating. *Pakistan Journal of Criminology*, 15(4), 119-136.
[24] Skogan, W.G. (1977). Dimensions of the dark figure of unreported crime. *Crime & Delinquency*, 23(1), 41-50. doi: 10.1177/001112877702300104.
[25] Tanwar, K., & Mishra, S. (2025). From protocols to practice: International cooperation and the evaluation of legal mechanisms against human trafficking. *International Journal for Multidisciplinary Research*, 7(3). doi: 10.36948/ijfmr.2025.v07i03.44152.

Проблеми гармонізації національного законодавства держав Центральної Азії з міжнародними стандартами протидії торгівлі людьми

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Анотація
Метою дослідження був аналіз ступеня відповідності національного законодавства держав Центральної Азії міжнародним нормам і стандартам щодо протидії торгівлі людьми. У дослідженні застосовано системний, формально-юридичний та порівняльно-правовий методи, що забезпечило комплексне вивчення міжнародно-правових стандартів і національних механізмів протидії торгівлі людьми. Встановлено, що всі країни формально імплементували тріаду елементів «дія – засіб – мета експлуатації», закріплену в Палермському протоколі, проте рівень інституційної реалізації стандартів істотно відрізняється. Було виявлено, що найповнішу модель протидії створено в Казахстані, Киргизстані й Узбекистані, де діють національні комісії та механізми захисту жертв, натомість у Таджикистані й Туркменістані, попри наявність базових нормативно-правових актів, система заходів захисту жертв є фрагментарною, вирізняється недостатньою інституційною координацією, що обмежує ефективність практичної реалізації. У межах дослідження з'ясовано, що ефективність національного законодавства у сфері протидії торгівлі людьми в країнах Центральної Азії різниться залежно від ступеня інституційної згуртованості та якості процедур ідентифікації жертв. У Казахстані кількість офіційно зареєстрованих жертв залишається на рівні близько двох десятків випадків щорічно, водночас у Киргизстані й Узбекистані вона збільшилася на понад 50 % за 2021-2023 роки, що відображає підвищення інституційної чутливості та поліпшення міжвідомчої координації. Здійснений аналіз засвідчив низький рівень «конверсії» виявлених випадків у кримінальне переслідування – лише 10-20 % випадків доходять до суду, що вказує на необхідність посилення інтеграції процесів ідентифікації, захисту та правосуддя. Результати дослідження може бути використано для оптимізації національних механізмів виявлення та захисту жертв торгівлі людьми, зокрема розроблення стандартизованих протоколів міжвідомчої взаємодії та інтеграції даних в офіційну статистику

Ключові слова:
міжнародні зобов'язання; трудова експлуатація; кримінальне переслідування; ідентифікація жертв; міжвідомча взаємодія

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Application of AI to detect anomalous transactions as a new direction in combating money laundering

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Abstract
The aim of the study was to examine the effectiveness of applying artificial-intelligence algorithms in the financial-monitoring system. The methodology included a comparative analysis of the practices of the United States, the European Union and Ukraine, a case analysis of international financial incidents (United States, European Union, Ukraine), and an assessment of the regulatory framework. It was established that the regulatory basis for a rule-based system is enshrined in the international standards of the Financial Action Task Force and implemented in the legislation of the European Union, the United States and Ukraine, which ensures transparency of control while simultaneously reducing adaptability to new schemes. In the United States, legal norms ensure strict reporting and sanctions, yet these norms demonstrated critical gaps in rule-based monitoring. In the European Union, multi-level directives strengthened centralised supervision while preserving the problem of bureaucratic inertia. In Ukraine, cryptocurrency Anti-Money Laundering still remained limited. It was identified that in the 2024 judgments of the High Anti-Corruption Court there were recorded cases of using fractional land deals totalling more than 3.1 million dollars, as well as large-scale organised schemes that rule-based systems did not detect. The 2024 statistics (1.75 million financial reports, UAH 12.1 billion of seized

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assets) demonstrated the scale of Ukraine's Anti-Money Laundering system but revealed the need to reduce false positives and strengthen analytics. Alignment with international practice showed that the effectiveness of future anti-money-laundering solutions for Ukraine is possible only if the regulatory framework is combined with AI models that meet the requirements of the Financial Action Task Force and the European Union. The practical significance lay in applying the results by banks, regulators and law-enforcement bodies of Ukraine to reduce false positives, detect complex schemes and adapt monitoring systems to international standards

Keywords:
model explainability; federated learning; graph neural networks; graph autoencoders; reduction of false positives; cryptocurrency operations; privacy of transactional data

Introduction

Money laundering presents a significant threat to global financial stability. According to the United Nations Conference on Trade and Development (UNCTAD) (2023), significant volumes of illicit financial flows were identified in Namibia, including through customs-value manipulation and misinvoicing in external trade. Preliminary estimates cover the period 2010-2020 and show that such practices lead to substantial losses of state revenues and distort trade statistics. This underscores the need to increase the transparency of financial operations and international cooperation in countering illicit financial flows (2023). In traditional approaches, rule-based systems dominated, operating on the basis of static rules and threshold values; however, the inefficiency became evident – these systems generate large numbers of false alerts and are unable to respond in a timely manner to new and complex money-laundering schemes (Bakry *et al*., 2024). This overloads compliance units and reduces the effectiveness of monitoring, which creates the need to introduce innovative solutions based on Artificial Intelligence (AI) (Singh, 2025).

The state of scientific research shows growing interest in the application of machine-learning and deep-learning algorithms in the field of Anti-Money Laundering (AML). B. Dumitrescu *et al*. (2022) proved that anomaly-detection methods in transaction graphs provide a higher level of identification of suspicious operations in banking networks. Graph representation of data specifically makes it possible to capture hidden links between clients and transactions that remain invisible to tabular models. This confirmed a significant advantage of anomaly detection in complex multi-level schemes. The study by R.I.T. Jensen & A. Iosifidis (2023) found that the use of deep-learning algorithms can substantially reduce the number of false alarms in AML systems. The authors demonstrated that the model increases precision without a loss of recall, i.e., ensures a more balanced approach to compliance. This indicated a real possibility of optimising monitoring processes.

The integration of AI into banking analytics and regulatory compliance was also detailed in the work of S. Rana *et al*. (2025). The authors found that the use of AI systems makes it possible to increase the accuracy of identifying suspicious transactions and ensures compliance with modern regulatory requirements. The study also emphasised the economic value of introducing such technologies, as these technologies reduce the workload on financial-monitoring units and optimise banks' resources. The application of big-data analytics in the forensics of financial crimes was developed in the study by M. Purohit & H. Barot (2024). The authors showed that a data-driven-forensics approach opens new possibilities for detecting hidden patterns in financial flows. Using large data sets makes it possible to identify complex criminal structures that remain unnoticed by classical rule-based methods, thereby creating additional tools for more effective counteraction to money laundering. In the field of digital assets, protecting cryptocurrency networks is key. S. Balusamy *et al*. (2025) concluded that combining AI with blockchain technologies can significantly enhance the security of financial operations. The authors emphasised that such an approach ensures transparency of transactions while simultaneously creating an additional layer of protection in a high-risk environment.

The evolution of the Ukrainian AML framework makes a significant contribution to understanding the adaptation of the national system to European standards. In the study by A. Fortunenko *et al*. (2025), it was shown that expanding the liability of legal entities helps increase financial transparency and strengthen institutional mechanisms for countering money laundering. This has direct relevance for the integration of innovative approaches, including AI, because effective application of technologies is only possible with a robust legal foundation. The work of S. Kalabukhova (2025) emphasised that systematic collection and processing of information is a key factor in the effectiveness of analytical activity in the field of financial intelligence, enabling the timely detection of hidden schemes and minimising errors in law enforcement. This conclusion has universal significance, as it demonstrates that effective implementation of technologies (including AI) is possible only under conditions of a clearly structured analytical process.

A similar position is held by D. Ovsianiuk (2024), who noted that the clear structuring of stages – from the collection and verification of information to its interpretation and use in decision-making – is a key factor in the effectiveness of analytics. Such an approach

allows hidden schemes to be detected in a timely manner, reduces the risk of errors in law enforcement, and increases the overall effectiveness of combating financial crimes. The opportunities and challenges of implementing AI in Ukraine's banking sector became the subject of analysis in the work of N. Horobets *et al*. (2025). The authors showed that the use of AI can significantly reduce the level of false alerts in transaction-monitoring processes while simultaneously requiring compliance with the General Data Protection Regulation (GDPR)[1] and the AI Act[2], which defined the conditions for effective integration of technologies into the national AML system. However, a significant part of the research focused on the technical aspects of anomaly detection, while less attention was paid to issues of model explainability and the legal legitimacy in judicial and regulatory processes.

Secondly, existing studies were mainly focused on the international context, whereas the Ukrainian experience was covered fragmentarily and required systematic analysis. The issue of integrating innovative approaches into already existing rule-based systems, which still dominate financial institutions, also remained insufficiently developed. Therefore, the aim of the study was the theoretical assessment of the effectiveness of artificial-intelligence algorithms for improving the accuracy and adaptability of the detection of financial offences. The research hypothesis was that artificial-intelligence algorithms, in particular anomaly-detection methods of machine learning, allow the detection of suspicious financial transactions with higher accuracy than rule-based systems, especially in the presence of complex patterns or atypical behaviour.

Materials and Methods

The study covered an analysis of traditional rule-based systems and international practices and outlined areas for adapting the Ukrainian system to international practices. The choice of countries was determined by the fact that the United States had leading experience in applying rule-based and AI approaches, the EU formed supranational standards and ethical requirements, and Ukraine was adapting these practices in the process of European integration. This made it possible to identify both common features and challenges relevant for the further harmonisation of Ukrainian practice with international approaches.

Traditional rule-based systems were presented in order to assess the advantages of static rules for regulators and auditors (simplicity, transparency) and to identify the limitations. Rule-based systems were chosen as the baseline because these systems were enshrined in laws and standards and were simple to apply. To confirm the limitations, the method of case analysis of international – COVID-19 relief fraud and AML Bitcoin fraud (United States) (U.S. Department of Justice, Office of Public Affairs, 2025a; U.S. Department of Justice, Office of Public Affairs, 2025b), TD Bank money laundering (United States) (FinCEN, 2024), fake-art money laundering (EU) (Eurojust, 2024) – and Ukrainian examples of money-laundering and fraud schemes (National Police of Ukraine, 2023; 2024; National Police of Ukraine – Zaporizhzhia Region, 2025) was applied to demonstrate practical incidents of rule-based approaches (the sources used were official publications of U.S. state bodies reflecting court judgments and plea agreements with fines (TD Bank). Full court decisions were available only via the PACER system, therefore open official releases were used. The fake-art money-laundering case (EU) was at the indictment stage; final court decisions were not publicly available, therefore an official Eurojust (2024) press release was used).

The method of systematisation and comparison of practices of using AI methods based on academic research was also applied; Explainable AI was analysed for decision transparency, graph and generative models were analysed for detecting hidden schemes and reducing false positives, and simulation environments were used for testing algorithms. The task of this stage was to show the limitations of traditional rules and to prove the feasibility of integrating AI solutions into national AML frameworks.

A method of comparative analysis of the AML systems of the EU, the United States and Ukraine was applied, which provided for a structured comparison of key aspects: legislation, supervisory authorities, reporting mechanisms, regulation of cryptocurrencies, sanctions, ethical dimensions and international cooperation. This made it possible to assess the degree of harmonisation with the standards of the Financial Action Task Force (FATF) and to identify the strengths and weaknesses of each jurisdiction: EU regulatory framework, European Banking Authority, United States, Ukraine, international legal standard.

Results and Discussion

Limitations of traditional rule-based systems and the potential of AI in the AML. Traditional rule-based systems in the sphere of combating money laundering are financial-monitoring algorithms that function on the basis of predefined rules and threshold values, for example limits on the amount or frequency of transactions. The advantage lies in the simplicity of implementation and comprehensibility for regulators and auditors. Such approaches are expressly enshrined in international and national standards, in the

[1] General Data Protection Regulation. (2016, April). Retrieved from https://commission.europa.eu/law/law-topic/data-protection/legal-framework-eu-data-protection_en?utm_source=.
[2] Regulation of the European Parliament and of the Council No. 2024/1689 "On Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act)". (2024, August). Retrieved from https://eur-lex.europa.eu/eli/reg/2024/1689/oj.

Law of Ukraine No. 361-IX[1], in the United States – the Bank Secrecy Act[2], the USA Patriot Act[3], the Anti-Money Laundering Act of 2020[4], and in the EU –Directive No. 2015/849[5], and No. 2018/843[6].

Directive No. 2018/1673[7], as well as in the FATF (2025) recommendations. The advantage is the simplicity of implementation and interpretation, which makes rule-based solutions convenient for regulators and auditors. At the same time, the limitation of such an approach is manifested in weak sensitivity to new and complex patterns. An example is the TD Bank case in the United States, where the system missed about 92% of transactions amounting to $18.3 trillion, which became the basis for regulatory measures. In October 2024, TD Bank N.A., together with its parent company TD Bank US Holding Company, was subjected to investigation due to violations of the Bank Secrecy Act[8] and systemic shortcomings in combating money laundering. Between 2018 and 2024, a bank client carried out more than $470 million in illegal transactions through bank branches, using large cash deposits and wire transfers that were not properly identified by employees.

In addition, five bank employees conspired with criminal organisations to open accounts used to launder $39 million to Colombia, including proceeds from drug trafficking. As a result of the incident, TD Bank agreed to multibillion-dollar fines, asset restrictions, the appointment of an independent monitor, and the strengthening of internal controls and anti-money-laundering staff. This case underscores the critical need to comply with anti-money-laundering standards and effective internal controls, since the violation leads to financial and reputational risks (FinCEn, 2024). This indicates that the static nature of rule-based systems creates critical gaps in adapting to new schemes.

In contrast to static rules, AI methods are based on machine learning and are capable of detecting complex multi-level patterns in financial data. The use of Explainable AI in the AML sphere is necessary to ensure the legitimacy of such systems in courts and to build public trust. Regulators emphasise that automated decisions must be justified; otherwise, there is a risk of legal challenges. The processing of transactional data simultaneously creates privacy risks, particularly in the EU, where the GDPR applies. One promising approach is federated learning, which makes it possible to train models without transferring raw data, preserving clients' privacy (Konstantinidis & Gegov, 2024). AI tools significantly outperform traditional rule-based systems in accuracy and adaptability, particularly in detecting complex money-laundering schemes through cryptocurrencies. Algorithms are capable not only of detecting anomalous transactional flows, but also of recognising hidden schemes that remain invisible to classical methods. This increases the effectiveness of AML systems, reduces the risk of erroneous decisions, and ensures greater sensitivity to new types of financial abuse (Altman *et al*., 2023). Algorithms based on graph neural networks demonstrate significant effectiveness in detecting complex transactional links that remain unnoticed by traditional rule-based systems. These models have shown the ability to identify hidden relationships between different participants in financial networks and to detect potential beneficiaries. This underscores the promise of applying graph methods in the development of hybrid AML systems that combine technological accuracy with requirements for legal substantiation (Wójcik, 2024).

To evaluate the effectiveness of anti-money-laundering algorithms, studies use a specialised multi-agent simulator that models the full laundering cycle: from the placement of funds obtained from various types of criminal activity to the layering and integration into the legal economy. The environment reproduces transactions between different participants (banks, companies, private individuals) and allows algorithms to be tested on controlled examples. Its value lies in the ability to reproduce typical laundering schemes (for example, cycles or branching) while preserving the full confidentiality of real client data. This contributes to the development of more accurate and adaptive AI systems in the AML sphere, particularly in terms of cross-border transactions and scenarios that are difficult to trace by classical methods (Johannessen & Jullum, 2023). Indicative is the example of using graph-based generative models, which have demonstrated the ability

[1] Law of Ukraine No. 361-IX "On Prevention and Counteraction to Legalisation (Laundering) of the Proceeds of Crime, Financing of Terrorism and Financing of Proliferation of Weapons of Mass Destruction". (2019, December). Retrieved from https://zakon.rada.gov.ua/laws/show/361-20?utm_source= #Text.

[2] Bank Secrecy Act of USA. (1970, October). Retrieved from https://www.govinfo.gov/content/pkg/USCODE-2022-title31/pdf/USCODE-2022-title31-subtitleIV-chap53-subchapII.pdf?utm_source=.

[3] USA Patriot Act. (2001, October). Retrieved from https://www.congress.gov/bill/107th-congress/house-bill/3162/text?utm_source=.

[4] Anti-Money Laundering Act of USA. (2020, April). Retrieved from https://www.congress.gov/bill/116th-congress/house-bill/6395/text?utm_source=.

[5] Directive of the European Parliament and of the Council No. 2015/849 "On the Prevention of the Use of the Financial System for the Purposes of Money Laundering or Terrorist Financing". (2015, May). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32015L0849&utm_source=.

[6] Directive of the European Parliament and of the Council No. 2018/843 Directive (EU) 2015/849 on the Prevention of the Use of the Financial System for the Purposes of Money Laundering or Terrorist Financing. (2018, May). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32018L0843&utm_source=.

[7] Directive of the European Parliament and of the Council No. 2018/1673 "On Combating Money Laundering by Criminal Law". (2018, October). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32018L1673&utm_source=.

[8] Bank Secrecy Act of USA. (1970, October). Retrieved from https://www.govinfo.gov/content/pkg/USCODE-2022-title31/pdf/USCODE-2022-title31-subtitleIV-chap53-subchapII.pdf?utm_source=.

simultaneously to reduce the number of false positives and to maintain high sensitivity to truly suspicious operations. This conceptually confirms the advantage of intelligent methods over exclusively rule-based monitoring, especially in scenarios with multistep and complex transactional schemes (Karthikeyan & Bhowmik, 2025).

Although AI methods require high-quality data and create challenges in terms of explainability and privacy, such methods form the foundation of modern AML systems. These methods outperform rule-based solutions in accuracy, adaptability, and the ability to detect new and complex schemes. Rule-based systems may remain a basic filter for obvious anomalies (for example, large cash transfers), but the static nature and narrow range make these systems insufficient as the primary tool. In contrast, AI approaches are capable of working with large and heterogeneous data, considering the dynamics of transactional flows and increasing the reliability of law-enforcement practice in the sphere of combating money laundering. Although rule-based systems for combating money laundering formally comply with international standards, the practical application demonstrates a number of significant limitations. Such systems are capable mainly of identifying obvious anomalies; however, the static nature makes timely responses to complex, multi-level and cross-border schemes impossible. This is confirmed by examples from international practice, where significant financial crimes remained without proper control, summarised in Table 1.

Table 1. Empirical analysis of cases of limitations of rule-based approaches in AML and the imperative to use AI

Case	Description	Failure of rule-based approaches	Need for AI analytics
COVID-19 relief fraud (USA)	More than $11 million illegally obtained as loans under the Paycheck Protection Program (PPP). Funds were laundered through real estate (25 properties), gambling and other assets. Sentence: 15+ years' imprisonment, confiscation	Rule-based document checks did not detect forgeries and inflated indicators; these checks did not track anomalous behaviour after receiving funds	AI is able to analyse large data sets, detect falsified documents and hidden transactional networks, reducing the risks of abuse in state programmes
AML Bitcoin fraud (USA)	The fraudulent cryptocurrency scheme caused $10 million in losses to investors, $2 million of which were laundered through real estate and personal expenses. Sentence: 7 years' imprisonment	Rule-based systems did not recognise false statements and did not detect patterns of transactions in cryptocurrency	AI can identify anomalous crypto-transactions and fraudulent networks, strengthening legal mechanisms for protecting investors in digital assets
Fake art money laundering (EU)	More than 2,000 counterfeit works of art seized, 38 persons arrested. Potential losses – €200 million. The scheme covered Belgium, France, Italy, and Spain	Rule-based approaches failed to detect cross-border schemes and to verify the authenticity of works	AI enables the tracking of cross-border networks and anomalies in the art market, ensuring more effective legal oversight and reducing the risks of trade in forgeries.
TD Bank money laundering (USA)	TD Bank found guilty of large-scale AML violations: $3 billion in fines, $470 million laundered through branches. 92% of transactions (totalling $18.3 trillion) remained outside monitoring	Use of outdated systems (10 years without updates), lack of control of large deposits and transfers, systemic deficits in financial monitoring	AI is able to monitor large volumes of transactions in real time and detect complex schemes, reducing legal risks for banks and increasing trust in the financial system
Money laundering through resale of securities (Ukraine) (National Police of Ukraine, 2024)	Activities of an organised group that legalised more than UAH 1 billion through fictitious operations with the resale of securities on the stock exchange	Traditional systems perceived transactions as lawful because documents formally met the requirements, and did not detect cyclical resales between the same participants	AI can analyse the intensity of transactions and hidden links between companies, detecting anomalous cycles of resale
Money laundering via VAT-refund schemes (Ukraine) (National Police of Ukraine – Zaporizhzhia Region, 2025)	Criminal activity of enterprises which, through fictitious employment of persons with disabilities, illegally obtained tax benefits and formed an inflated tax credit. This made it possible to file declarations with unlawful VAT-refund amounts of more than UAH 200 million	Rule-based approaches did not detect systematic features in tax declarations and fictitious use of benefits, which allowed abuse of the VAT-refund mechanism	AI for early detection of suspicious flows and building risk profiles
Cryptocurrency fraud totalling more than UAH 3.5 million (Ukraine)[1]	Illegal misappropriation of cryptocurrency in the amount of more than UAH 3.5 million. The obtained digital assets were transferred to personal wallets on the blockchain and then partially converted into cash. The scheme was built using online platforms for trading virtual assets and subsequent "laundering" through exchangers	Traditional banking and tax systems did not track transactions on the blockchain, which made timely response to fraudulent actions impossible	AI algorithms of graph analysis make it possible to identify suspicious wallets, trace chains of cryptocurrency transactions and form an evidentiary base for criminal proceedings

Sources: compiled by the authors based on the FinCEN (2024), Eurojust (2024), U.S. Department of Justice, Office of Public Affairs (2025a; 2025b)

[1] Directive of the European Parliament and of the Council No. 2015/849 "On the Prevention of the Use of the Financial System for the Purposes of Money Laundering or Terrorist Financing". (2015, May). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32015L0849&utm_source=.

Rule-based approaches, despite the formal compliance with international standards, demonstrate serious limitations in practical application. These approaches do not ensure an adequate response to complex, multi-level and cross-border money-laundering schemes, which creates risks for both public finances and private investors. In this context, the use of AI is not only a technological innovation but also a necessary condition for strengthening the legal system of combating money laundering. AI algorithms are capable of forming an evidentiary base for judicial processes, increasing the transparency of the financial sector, reducing the risks of appeals against decisions and strengthening trust in regulatory institutions. The expediency of implementing AI in AML systems is determined not so much by technological advantages as by legal, practical and economic necessity: to ensure compliance with legislative requirements, to increase the effectiveness of law enforcement and to protect the financial stability of the state.

The results of the study demonstrated that rule-based systems generate a significant volume of false-positive alerts, which leads to the blocking of legitimate clients. This correlated with the work of A.N. Bakry *et al*. (2024), who proved that automated ML solutions are capable of reducing the number of false positives due to adaptive signal suppression. The comparison revealed similarity in detecting multi-level money-laundering schemes that remained unnoticed by traditional rule-based systems. The comparison of results shows a common trend: rule-based systems are limited in detecting complex and multi-level money-laundering schemes, whereas AI algorithms have a significantly higher potential for the identification. The results of the study also revealed that AI approaches significantly outperform rule-based systems in detecting multi-level money-laundering schemes. At the same time, such approaches do not completely eliminate the problem of false positives, which creates a risk of blocking legitimate clients and legal consequences for banks. This corresponded to the conclusions of the study by Y. Chen *et al*. (2025), which confirmed the effectiveness of AI in the sphere of cryptocurrency transactions. The authors emphasised that combining different methods ensures higher accuracy and legal reliability, which meant that rule-based approaches are insufficient, whereas AI forms the foundation of modern 21st-century AML systems.

The study by E.J. Reite *et al*. (2025) showed that the application of AI in classifying clients by risk level makes it possible to reduce the number of false positives while simultaneously increasing the detection of suspicious transactions. Such an approach makes monitoring more effective and directs resources to truly dangerous categories of clients. The obtained results correlate with the conclusions of the current study that AI approaches outperform rule-based systems in accuracy and adaptability, as well as the ability of AI to work with large data sets and to detect hidden financial networks. This confirms that risk-oriented classification is a key tool for increasing the effectiveness of AML systems.

The results of the study confirmed that rule-based systems can be used only as a basic filter, since the low sensitivity makes these sytems insufficient in the fight against complex money-laundering schemes. In contrast, AI approaches demonstrated the ability to reduce false positives, adapt to the dynamics of transactions and meet the requirements of regulators. Similar conclusions are presented in the work of V. Singh (2025), where machine learning is considered as a tool for optimising AML policies, capable of combining technological efficiency and legal compliance with regulatory requirements. The study by H. Gandhi *et al*. (2024) also confirmed these trends, drawing attention to the advantages of AI/ML in combating complex schemes, particularly in the sphere of cryptocurrency transactions. At the same time, the authors emphasised the challenges of explainability and privacy protection, which remain critical for the legal legitimacy of such solutions. Taken together, this confirms that the development of AML systems is inseparable from the implementation of AI, since it is AI that ensures the balance between detection accuracy, protection of clients' rights and compliance with standards. Thus, despite regulatory embeddedness and ease of use, rule-based systems remain overly static and are characterised by a high level of false-positive alerts. In contrast, AI approaches provide significant accuracy, the ability to detect multi-level schemes and a reduction in erroneous signals.

International standards of the Financial Action Task Force (FATF) and the features of implementation in Ukrainian legislation. The FATF (2025) recommendations are the global standard for combating money laundering and terrorist financing. These Recommendations do not have direct legal force, but each jurisdiction implements the recommendations in its own laws and regulations. These standards are focused on cryptocurrencies and VASPs, as well as on the control of anonymous wallets and rapid transactions. The FATF carries out peer reviews and applies the tools of "grey" and "black lists", which forces countries to improve the AML legislation. The FATF acts as a "matrix", and the EU, the United States and Ukraine implement these standards in the own laws, supervisory bodies and practical cases.

Cryptocurrency transactions combine publicity and anonymity: all operations are stored in an open register, yet wallet owners remain pseudo-anonymous. This creates conditions for the legalisation of proceeds, since large transfers can be hidden among millions of small transactions. The FATF separately emphasised the risks associated with anonymous wallets and high-speed transactions and obliged countries to strengthen the regulation of VASPs. The EU, the United States and Ukraine form three different approaches to

AML/CTF regulation that combine the FATF international standards with national specificities. The study of these models makes it possible to evaluate the effectiveness of centralised and decentralised supervision, the scale of sanctions and the readiness to respond to new challenges, particularly in the sphere of cryptocurrencies.

In the EU, the key act is Directive No. 2015/849[1], which establishes the foundations for combating money laundering and terrorist financing. Article 30 provides for the creation of registers of beneficial owners; however, practice has shown fragmentation of approaches in different Member States, which complicates cross-border access to data. Amendments introduced by Directive No. 2018/843[2] expanded the list of obliged entities, including providers of services for virtual assets (VASPs), but at the same time created a risk of bureaucratisation and excessive burden on small businesses. In addition, Directive (EU) 2018/1673[3] criminalised money laundering at the Union level but left room for divergent interpretations of sanctions among Member States. The European Banking Authority (2025), noted that the lack of harmonisation in supervision creates "regulatory arbitrage".

In the United States, the main problem is the archaic nature of certain provisions of the Bank Secrecy Act of USA[4]. In particular, section 5313 requires mandatory reports on transactions over $10,000, which, in the modern conditions of the 21st century, leads to an excessive volume of reports without increasing the effectiveness of the fight against ML. The amendments of Money Laundering Control Act[5] and the Patriot Act[6], Title III significantly expanded FinCEN's powers, but the broad interpretation became the subject of criticism due to the risk of excessive interference with privacy. Even the Anti-Money Laundering Act[7], which introduced requirements for beneficial-ownership reporting, was partially revised by FinCEN (2025), raising doubts about compliance with FATF Recommendation 24 (FinCEN, 2025). As a result, the system is characterised by an overload of SAR reports and inconsistent approaches to the regulation of cryptocurrencies.

In Ukraine, the basis is the Law No. 361-IX[8], which implemented the FATF standards. At the same time, Article 209 of the Criminal Code of Ukraine[9] contains wording that allows the avoidance of criminal liability when intent is not proven, and the 2025 amendments only partially eliminated this gap. Cabinet of Ministers Resolutions No. 692[10] and No. 800[11] detailed the reporting procedure, but in practice led to excessive regulation and a conflict between state and banking procedures. The State Financial Monitoring Service of Ukraine (2023), in methodological recommendations, focused on new threats (in particular modern forms of slavery), yet the sphere of cryptocurrencies remains under insufficient control, which contradicts FATF (2025) Recommendation 15. Even positive steps, such as the introduction of corporate criminal liability provided for in legislative initiatives formed on the basis of the analytical conclusions of the State Financial Monitoring Service of Ukraine (2025), indicate the gradual evolution of the national system of combating money laundering towards alignment with FATF standards.

Although the FATF Recommendations set a unified international standard, the implementation demonstrates significant legal challenges. In the EU, the problem remains fragmentation and the lack of full harmonisation, which creates room for "regulatory arbitrage". In the United States, the system suffers from outdated

[1] Directive of the European Parliament and of the Council No. 2015/849 "On the Prevention of the Use of the Financial System for the Purposes of Money Laundering or Terrorist Financing". (2015, May). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32015L0849&utm_source=.

[2] Directive of the European Parliament and of the Council No. 2018/843 Directive (EU) 2015/849 on the Prevention of the Use of the Financial System for the Purposes of Money Laundering or Terrorist Financing. (2018, May). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32018L0843&utm_source=.

[3] Directive of the European Parliament and of the Council No. 2018/1673 "On Combating Money Laundering by Criminal Law". (2018, October). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32018L1673&utm_source=.

[4] Bank Secrecy Act of USA. (1970, October). Retrieved from https://www.govinfo.gov/content/pkg/USCODE-2022-title31/pdf/USCODE-2022-title31-subtitleIV-chap53-subchapII.pdf?utm_source=.

[5] Money Laundering Control Act of USA. (1986, October). Retrieved from https://www.govinfo.gov/content/pkg/STATUTE-100/pdf/STATUTE-100-Pg3207.pdf?utm_source=.

[6] USA Patriot Act. (2001, October). Retrieved from https://www.congress.gov/bill/107th-congress/house-bill/3162/text?utm_source=.

[7] Anti-Money Laundering Act of USA. (2020, April). Retrieved from https://www.congress.gov/bill/116th-congress/house-bill/6395/text?utm_source=.

[8] Law of Ukraine No. 361-IX "On Prevention and Counteraction to Legalisation (Laundering) of the Proceeds of Crime, Financing of Terrorism and Financing of Proliferation of Weapons of Mass Destruction". (2019, December). Retrieved from https://zakon.rada.gov.ua/laws/show/361-20?utm_source= #Text.

[9] Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14?utm_source=#Text.

[10] Resolution of the Cabinet of Ministers of Ukraine No. 692 "On the Approving the Procedure for the Preparation and Publication of the Comprehensive Administrative Reporting in the Field of Prevention and Counteraction to Legalisation (Laundering) of Proceeds from Crime, Financing of Terrorism, and Financing of Proliferation of Weapons of Mass Destruction". (2020, August). Retrieved from https://www.kmu.gov.ua/npas/pro-zatverdzhennya-poryadku-formuvannya-ta-oprilyudnennya-kompleksnoyi-administrativnoyi-zvitnosti-u-t50820?utm_source=.

[11] Resolution of the Cabinet of Ministers of Ukraine No. 800 "On Amendments to the Methodology for Determining the Amount of Damage Resulting from Unauthorized Occupation of Land Plots, use of Land Not for its Intended Purpose, and Removal of the Fertile Soil Layer". (2020, September). Retrieved from https://surl.li/susukg.

norms and an overload of SAR reports, which reduces the effectiveness of monitoring and increases the risks of excessive interference with privacy. In Ukraine, the key challenge is combining the requirements of the FATF and EU directives with the realities of national financial supervision and the level of development of the virtual-assets market. This indicates that formal compliance with international standards does not guarantee practical effectiveness without taking into account legal and technological constraints. In addition, in Ukraine there is no holistic regulation in the sphere of financial monitoring of digital assets – most current norms are scattered among various laws and by-laws, which complicates the application and creates gaps in law enforcement. There was an attempt to adopt an appropriate law that would regulate this sphere, but the issue has not yet been resolved.

Cryptocurrency has become one of the key risk zones for AML systems. Its specificity lies in the combination of the publicity of the blockchain and the pseudo-anonymity of wallet owners, which complicates the identification of ultimate beneficiaries. Traditional rule-based methods have proved insufficient, as these methods do not take into account complex transactional structures, in particular layering and smurfing. Instead, modern 21st century approaches have proved effective in detecting hidden links and atypical flows of assets. In the EU, the main challenge remains the fragmentation of law and uneven supervision, which creates "regulatory arbitrage" and complicates cross-border interaction. In the United States, the problem lies in the overload of SAR reports and the archaic nature of norms, which generates large volumes of formal reporting without real improvement in effectiveness and increases the risk of legal challenges. In Ukraine, despite active cooperation with the FATF and the conclusion of new international memoranda, there are resource constraints and the complexity of harmonising the national system with European requirements, which exacerbates risks in the cryptocurrency segment. Under these conditions, the integration of AI solutions appears not so much as a technological innovation as a legal and practical necessity: algorithms make it possible to reduce the number of false alerts, ensure the transparency of decisions (critical for courts and regulators), strengthen trust in the financial sector and reduce economic costs of monitoring. It is precisely the combination of regulatory clarity and intelligent technologies that is the key factor in increasing AML effectiveness on a global scale. Table 2 presents a comparative analysis of key AML/FT reporting indicators for 2024. The data presented included statistical indicators, the results of analytical work, international areas of cooperation and the ethical challenges of using AI.

Table 2. AML/FT reporting and ethical requirements for AI in the EU, USA, and Ukraine

Indicator	EU	USA	Ukraine
Statistics (number of Suspicious Transaction/ Activity Reports (STR/ SAR)	70% of competent authorities record high/increasing ML/TF risks in FinTech, 2.5× growth in the number of authorised CASP (2022-2024), 61% of violations are related to CDD shortcomings	4.7 million SARs, 20.5 million CTRs, 152,100 CMIRs, 1.7 million FBARs (daily averages: SAR ~12,870, CTR ~56,160)	In 2024, 1,754,604 reports were received, of which 1,750,940 were registered. From banks, 1,736,196 reports were registered; from non-bank institutions 14,467 electronic and 277 paper reports. Distribution of registered reports: threshold – 82.26% (1,440,319), suspicious (activity) – 17.58% (307,828), tracking requests – 0.14% (2,648). Case reports on suspicious transactions (activity) for 2024 – 208,852, the share of banks among reports that were registered – 99.2% (State Financial Monitoring Service of Ukraine, 2025)
Analytical materials/ proceedings	2,666 active investigations (+38% y/y) with an estimated harm of €24.8 billion; 1,504 newly opened, 205 indictments (+47%), €849 million of assets frozen	818 requests; ~58,628 positive responses, ~13,660 participating institutions; 6,503 subjects. 314(b): 6,100+ registered institutions; 48,223 SARs with a reference to 314(b); 1,693 institutions mentioned 314(b) in SARs; 62 SARs on terrorism. Access to BSA: 2.3 million searches, 432 agencies; 12,000+ users	1,053 generalised materials prepared and sent (amount of suspicions UAH 62.6 billion). Use of GM by law enforcement: 69 criminal proceedings initiated, GM used in 336 CP (346 GM), 90 CP completed; 39 cases considered by the court. Value of seized and frozen assets – UAH 12.1 billion
International programmes/exchanges	The EBA notes increased supervisory actions (off-site / on-site) in most sectors; improvement of residual risk in banking/market sectors; but weak controls in payment institutions and among new CASP	Rapid Response Program (RRP) FY24: 518 requests, $82.6 million returned to victims; $126.4 million (46%) frozen in FY24 (over $1.5 billion since 2015). Egmont exchanges: 972 incoming requests, 863 responses, 452 outgoing requests; 1,028 incoming and 212 outgoing spontaneous disclosures	4 Memoranda of Understanding (MoU) in 2024 with Norway, Germany, Gibraltar, Jersey; a total of 85 MoU since 2003

Table 2, Continued

Indicator	EU	USA	Ukraine
Ethical aspects of AI application	False positives: possible false alerts in FinTech, explainability: algorithms must be transparent to regulators, privacy: compliance with the GDPR when processing personal data	False positives: daily SARs (~12,870) may create false suspicions, explainability: the need for explanations of decisions for regulators and courts, privacy: compliance with the BSA and national privacy laws	False positives: 17.58% of suspicious transactions out of 1.75 million reports may be false, explainability: AI decisions must be understandable to law enforcement and the court, privacy: compliance with Ukrainian legislation on the protection of personal data

Note: the 314(b) programme is a voluntary mechanism in the USA that allows banks and financial institutions to exchange information about suspicious transactions to combat money laundering and terrorism
Sources: compiled by the authors on the basis of the European Banking Authority (2025), Financial Action Task Force (2025), State Financial Monitoring Service of Ukraine (2025), Financial Crimes Enforcement Network (FinCEN) (2025)

Effective combat against transnational crimes, particularly in the sphere of drug trafficking, largely depends on international information exchange and the harmonisation of legal frameworks between jurisdictions, which corresponds to approaches to AML/FT regulation where interaction between national financial intelligences and international partners is a determining factor of effectiveness (Ovsianiuk & Ustymenko, 2024). The combination of international practice and FATF standards outlines the key directions for improving the national system of combating money laundering and terrorist financing in Ukraine. First and foremost, it is essential to update the regulatory and legal framework and the methodological recommendations of the State Financial Monitoring Service to include provisions on the use of artificial intelligence for real-time transaction monitoring. The experience of the USA and the EU shows that the introduction of hybrid systems (rule-based + AI) makes it possible to reduce the level of false positives, which directly improves the legal quality of financial supervision. A separate legal direction is the development of public-private partnerships in the sphere of crypto-AML, where the NBU, the SFMS and banks can use AI tools to analyse blockchain transactions, following the example of US practice. This complies with FATF requirements regarding the regulation of VASP and helps to eliminate gaps in the control of anonymous wallets.

No less important is the integration of ethical and legal standards: the adaptation of GDPR[1] principles into the national legislation of Ukraine, the development of federated-learning practice to minimise the risks of personal-data leakage, as well as the enshrining of explainable-AI requirements for the legitimacy of the evidentiary base in judicial proceedings. Institutional development also acquires strategic significance: investment in digital infrastructure, the creation of regulatory frameworks for grant funding of technologies and staff training at the NBU. This will ensure legal certainty in the AML sphere, remove Ukraine from the "grey zones" of international rankings and accelerate its integration into the European financial-legal area.

The results of the study showed that rule-based solutions can be applied only as a basic level of control, whereas AI methods should become the core of AML systems, capable of ensuring higher accuracy and adaptability. This corresponded to the conclusions of N. Pocher *et al*. (2023), who investigated the detection of anomalous cryptocurrency transactions in the context of AML/CFT. The authors emphasised that static rule-based approaches cannot ensure adequate legal protection in the field of cryptocurrencies, as such approaches do not detect hidden schemes in blockchain networks. Instead, the application of AI creates new opportunities for forming the evidentiary base in criminal proceedings, improves the effectiveness of law enforcement and strengthens trust in financial supervision. This underlined that AI in crypto-AML has not only technological, but also key legal significance for compliance with international standards and the protection of the financial system.

S. Wang *et al*. (2024) proposed the application of graph methods in combination with structural criteria (minimisation of structural entropy) to detect hidden links in large transactional networks. The authors showed that such an approach makes it possible to reduce the level of "noise" in data and to increase the accuracy of identifying complex money-laundering schemes, including multi-level and high-speed transactional flows.

This correlated with the results of the current study regarding the effectiveness of AI analysis in the field of financial supervision, especially where traditional rule-based approaches are insensitive. At the same time, the current study emphasised that the practical implementation of such solutions must take into account not only the technical characteristics of the algorithms, but also legal requirements. This is of key importance for the legitimacy in judicial processes and compliance practice, as well as for the protection of the rights of subjects of financial transactions.

[1] General Data Protection Regulation. (2016, April). Retrieved from https://commission.europa.eu/law/law-topic/data-protection/legal-framework-eu-data-protection_en?utm_source=.

From a legal point of view, the main challenge for AML is to find a balance between the effectiveness of monitoring and the protection of the rights of subjects, since excessive false positives lead to unlawful blockings and legal disputes, whereas low sensitivity leaves room for the avoidance of liability, as emphasised by the FATF and EU/US regulators. T. Pousette & A. Rosenda (2024) stressed that for EU and US regulators, reason codes and model traceability – which ensure transparency and the possibility of appealing decisions – are a critical condition for the acceptability of AI. This directly aligned with the results of the current study regarding FATF requirements for the accountability of financial institutions and the principles of the GDPR, which prohibit completely opaque automated decisions. This means that explainable AI becomes not only a technological, but also a legal standard in the AML sphere.

The results showed that the rule-based approach in AML generates millions of reports that overload the system and conceal real risks. This correlated with C.-H. Poon *et al.* (2025), who proved that traditional rules are unable to account for complex multi-level schemes. The authors found that LineMVGNN (a model that applies multi-graph neural networks (MVGNN) to detect money laundering by analysing several graphs to improve transaction-detection accuracy) reveals hidden transactional links that rule-based methods miss. This meant that formal threshold criteria create noise rather than effective supervision. In the legal dimension, this threatens to turn norms into "dead law" and creates a risk of legal challenges due to disproportionate monitoring. Rule-based monitoring, despite its technical limitations, ensures a proportionate approach – thanks to the predictability of rules and the clarity of legal control. By contrast, the use of AI can create risks of disproportionality, as it forms unique indicators for different monitoring contexts, which complicates the regulatory verification and potentially expands the boundaries of interference with privacy. Therefore, the integration of AI into financial-monitoring systems must be accompanied by the development of transparent explainability criteria and legal limits on use, in order to avoid criticism, legal challenges and non-compliance with FATF standards.

S.A. Ajagbe *et al*. (2025) carried out a comprehensive comparison of machine-learning algorithms for detecting money laundering in transactional data. The authors demonstrated that ensemble models significantly outperform both classical ML approaches and simple rule-based methods in terms of accuracy and stability of results. This corresponded to the current study on the problem of false positives in AML systems, which overload supervision and reduce effectiveness. The correct choice of algorithm directly affects the reduction of false positives and improves the quality of financial monitoring. This means that, in the legal sphere, the application of optimal ML models makes it possible to avoid blocking legitimate transactions and reduces the risks of legal challenges. Such an approach opens up the possibility of reducing SAR/STR overload and moving to more accurate, proportionate monitoring that complies with FATF international standards.

M. Di Gennaro *et al*. (2025) showed that temporal graph neural networks (Temporal GNN) make it possible effectively to track suspicious laundering schemes that were manifested through rapid and multi-level transactions. The researchers found that Temporal GNN can take into account the temporal dynamics of flows and detect atypical transactional patterns that remain unnoticed by static models. This was consistent with the results of the study that the main challenge in the sphere of cryptocurrencies is the risks of high-speed transfers and anonymous wallets, to which the FATF draws attention. This meant that AML solutions without the integration of temporal characteristics remain formal and are not capable of genuinely counteracting the risks of cryptocurrency markets. In the legal dimension, such an approach directly complies with the FATF Recommendation on new technologies and proves the readiness of countries to ensure not only formal, but also practical compliance with standards.

Thus, the integration of AI into regulatory frameworks, the development of public-private partnerships, compliance with ethical standards and investment in technologies form the basis for the modernisation of Ukraine's AML system. This will reduce false positives, increase monitoring effectiveness, improve the results of combating money-laundering crimes and ensure full compliance with FATF standards, contributing to European integration.

Conclusions

The results of the study confirmed the research hypothesis, proving that artificial-intelligence algorithms outperform rule-oriented systems in terms of accuracy and the ability to detect complex and atypical transactions. Traditional rule-based systems, despite compliance with FATF standards, miss significant volumes of suspicious transactions due to the static nature. In the TD Bank case (USA), 92% of transactions amounting to $18.3 trillion were not detected, including $470 million in illegal operations through cash deposits and transfers; in Ukraine in 2024, 1,754,604 reports were recorded, of which 1,730,000+ were from banking institutions, with 82.26% being threshold and only 17.58% suspicious. The implementation of AI in AML systems requires ensuring explainability for legitimacy in judicial processes and compliance with privacy standards (the GDPR, Ukrainian data-protection legislation). Rule-based systems may remain a basic filter for obvious anomalies, but these systems should be combined with AI algorithms to increase monitoring effectiveness. The introduction of such an approach will

stimulate the training or retraining of existing specialists, or the replacement with those more advanced in AI-based AML approaches.

The experience of the USA and the EU shows that hybrid systems reduce false positives and improve the legal quality of supervision. Special legislation sets the global standard, but its implementation in the EU, the USA, and Ukraine has differences. The EU suffers from fragmented supervision, the USA – from outdated norms and SAR-report overload, Ukraine – from resource constraints and insufficient control of cryptocurrencies. This underlines the need to harmonise legislation and to implement AI to increase effectiveness. At the same time, the application of AI in AML is accompanied by risks and limitations. The main ones are the problem of decision explainability, which may complicate the use as evidence in courts, and privacy risks in connection with GDPR requirements. The effectiveness of models depends on data quality, and residual false positives, although reduced, still create a burden for banks. A challenge is also the high computational cost and the risk of concentration of control among a few technology providers. To improve the AML system, Ukraine should update the regulatory framework with AI in mind, develop partnerships for blockchain analysis, adapt GDPR principles and invest in infrastructure and personnel. This will reduce risks, strengthen trust and promote the European integration of the financial sector.

A limitation of the study was the dependence of model effectiveness on the volume and quality of input data, as well as the complexity of practical implementation in financial institutions due to high cost and the need for specialised personnel. Further research should focus on combining different types of AI algorithms in hybrid architectures, on testing the operation under concept drift conditions, and on integration with FATF regulatory requirements.

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Conflict of Interest

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References

[1] Ajagbe, S.A., Majola, S., & Mudali, P. (2025). Comparative analysis of machine learning algorithms for money laundering detection. *Discover Artificial Intelligence*, 5, article number 144. doi: 10.1007/s44163-025-00397-4.

[2] Altman, E., Blanuša, J., von Niederhäusern, L., Egressy, B., Anghel, A., & Atasu, K. (2023). Realistic synthetic financial transactions for antimoney laundering models. In A. Oh, T. Naumann, A., Globerson, K., Saenko, M., Hardt & S., Levine (Eds.), *Advances in neural information processing systems*. Red Hook: Curran Associates, Inc.

[3] Bakry, A.N., Alsharkawy, A.S., Farag, M.S., & Raslan, K.R. (2024). Automatic suppression of false positive alerts in anti-money laundering systems using machine learning. *The Journal of Supercomputing*, 80, 6264-6284.

[4] Balusamy, S., Rengasamy, R., & Aravind, J. (2025). Protecting financial transactions and cryptocurrency networks from fraud using AI-powered blockchain technology. In *Proceedings of the 2025 global conference in emerging technologies* (pp. 1-6). Pune: IEEE.

[5] Chen, Y., Chen, Z., & Amin, H.U. (2025). LG-VGAE: A local and global collaborative variational graph autoencoder for detecting crypto money laundering. *Knowledge and Information Systems*, 6, article number 586.

[6] Di Gennaro, M., Panebianco, F., Pianta, M., Zanero, S., & Carminati, M. (2025). Amatriciana: Exploiting temporal GNNs for robust and efficient money laundering detection. *arXiv*. doi: 10.48550/arXiv.2506.00654.

[7] Dumitrescu, B., Baltoiu, A., & Budulan, S. (2022). Anomaly detection in graphs of bank transactions for anti money laundering applications. *IEEE Access*, 10(96). doi: 10.1109/ACCESS.2022.3170467.

[8] Eurojust. (2024). *International operation leads to seizure of 2 000 fake works of art with potential losses of EUR 200 million*. Retrieved from https://surl.li/vvgdgf.

[9] European Banking Authority. (2025). *Opinion and report on money laundering and terrorist financing risks affecting the EU's financial sector*. Retrieved from https://surl.lt/mprhoo.

[10] Financial Action Task Force (FATF). (2025). *International standards on combating money laundering and the financing of terrorism & proliferation. The FATF Recommendations*. Paris: FATF.

[11] FinCEN. (2024). *FinCEN assesses record $1.3 billion penalty against TD Bank, N.A. and TD Bank USA, N.A. U.S. Department of the Treasury*. Retrieved from https://surl.lu/uhpaml.

[12] FinCEN. (2025). *FinCEN year in review FY 2024 [Infographic]*. Retrieved from https://www.fincen.gov/system/files/shared/FinCEN-Infographic-Public-2025-508.pdf?utm_source=.

[13] Fortunenko, A., Shkondin, O., Stadnyk, O., & Hontaruk, I. (2025). *Ukraine: Evolving antimoney laundering framework expands corporate criminal liability*. Retrieved from https://surl.li/mjofyb

[14] Gandhi, H., Tandon, K., Gite, S., Pradhan, B., & Alamri, A. (2024). Navigating the complexity of money laundering: Anti–money laundering advancements with AI/ML insights. *International Journal on Smart Sensing and Intelligent Systems*, 17(1).

[15] Horobets, N., Reznik, O., Maliyk, V., Vyhivskyi, I., & Bobrishova, L. (2025). Artificial intelligence technologies in banking: Challenges and opportunities for anti-money laundering in the context of EU regulatory initiatives. *Journal of Money Laundering Control*, 28(4-5), 593-608. doi: 10.1108/JMLC-03-2025-0041.
[16] Jensen, R.I.T., & Iosifidis, A. (2023). Qualifying and raising anti-money laundering alarms with deep learning. *Expert Systems with Applications*, 214, article number 119037. doi: 10.1016/j.eswa.2022.119037.
[17] Johannessen, F., & Jullum, M. (2023). Finding money launderers using heterogeneous graph neural networks. *arXiv*. doi: 10.48550/arXiv.2307.13499.
[18] Kalabukhova, S. (2025). Methods of analysis in the financial intelligence system. *Finance of Ukraine*, 4, 46-57. doi: 10.33763/finukr2025.04.046.
[19] Karthikeyan, G.K., & Bhowmik, B. (2025). Enhancing money laundering detection in bank transactions using GAGAN: A graph-adapted generative adversarial network approach. *International Journal of Data Science and Analytics*, 20, 6301-6331. doi: 10.1007/s41060-025-00823-x.
[20] Konstantinidis, G., & Gegov, A. (2024). Deep neural networks for antimoney laundering using explainable artificial intelligence. In *Proceedings of the 2024 IEEE 12th International Conference on Intelligent Systems* (pp. 430-435). Red Hook: IEEE.
[21] National Police of Ukraine – Zaporizhzhia Region. (2025). *Zaporizhzhia police uncovered a man who misappropriated over UAH 3,500,000 in cryptocurrency*. Retrieved from https://surl.li/ylxqgt.
[22] National Police of Ukraine. (2023). *Over UAH 1 billion laundered through resale of securities on the stock exchange: Law enforcement officers served notices of suspicion to members of a criminal group*. Retrieved from https://surl.li/upjfav.
[23] National Police of Ukraine. (2024). *Over UAH 200 million laundered via VAT schemes: law enforcement exposed organizers using enterprises employing persons with disabilities*. Retrieved from https://surl.li/czvubg .
[24] Ovsianiuk, D. (2024). Intelligence cycle as the basis of analytical activity in combating drug-related crime. *Law Journal of the National Academy of Internal Affairs*, 14(2), 95-104. doi: 10.56215/naia-chasopis/2.2024.95.
[25] Ovsianiuk, D., & Ustymenko, O. (2024). Exchange of information as a form of international cooperation in combating drug trafficking. *Novum Jus*, 18(1), 181-216. doi: 10.14718/NovumJus.2024.18.1.7.
[26] Pocher, N., Zichichi, M., Merizzi, F., Shafiq, M. Z., & Ferretti, S. (2023). Detecting anomalous cryptocurrency transactions: An AML/CFT application of machine learning-based forensics. *Electronic Markets*, 33, article number 37. doi: 10.1007/s12525-023-00654-3.
[27] Poon, C.-H., Kwok, J., Chow, C., & Choi, J.-H. (2025). LineMVGNN: Anti-money laundering with line-graph-assisted multi-view graph neural networks. *AI*, 6(4), article number 69. doi: 10.3390/ai6040069.
[28] Pousette, T., & Rosendal, A. (2024). *Explainable anti-money laundering*. (Master's thesis, Chalmers University of Technology, Gothenburg, Sweden).
[29] Purohit, M., & Barot, H. (2024). Data-driven forensics: Unveiling the hidden depths of financial crime. In S.K. Shandilya, D. Sujay & V.B. Gupta (Ed.), *Advancements in cybercrime investigations and modern data analytics*. Boca Raton: CRC Press.
[30] Rana, S., Aggarwal, S., Jagirdar, S.S., & Jain, S. (2025). *Insights in banking analytics and regulatory compliance using AI*. Retrieved from https://www.igi-global.com/gateway/book/358948.
[31] Reite, E.J., Karlsen, J., & Westgaard, E.G. (2025). Improving client risk classification with machine learning to increase anti-money laundering detection efficiency. *Journal of Money Laundering Control*, 28(1), 93-107. doi: 10.1108/JMLC-03-2024-0040.
[32] Singh, V. (2025). Policy optimization for Anti-Money Laundering (AML) compliance using AI techniques: A machine learning approach to enhance banking regulatory compliance. *International Journal of Engineering Research & Technology (IJERT)*, 14(4).
[33] State Financial Monitoring Service of Ukraine. (2023). *Methodological recommendations for analysing money laundering trends related to modern forms of slavery in Ukraine.* Retrieved from https://surl.lt/aglghq.
[34] State Financial Monitoring Service of Ukraine. (2025). *Report of the State Financial Monitoring Service of Ukraine for 2024*. Retrieved from https://fiu.gov.ua/assets/userfiles/0350/2025/REPORT2024.pdf.
[35] U.S. Department of Justice, Office of Public Affairs. (2025a). *Nevada man sentenced for over $11 M COVID-19 relief fraud and money laundering scheme*. Retrieved from https://surl.li/gmfdzu.
[36] U.S. Department of Justice, Office of Public Affairs. (2025b). *Founder and CEO of AML Bitcoin sentenced to seven years in prison for multi-million-dollar fraud scheme*. Retrieved from https://surl.li/dhzpjy.
[37] United Nations Conference on Trade and Development (UNCTAD). (2023). *First-ever official data on illicit financial flows now available*. Retrieved from https://surl.lt/xtcjng.
[38] Wang, S., Wang, P., Wu, B., Zhu, Y., Luo, W., & Pan, Y. (2024). Structural entropy minimization combining graph representation for money laundering identification. *International Journal of Machine Learning and Cybernetics*, 15, 3951-3968. doi: 10.1007/s13042-024-02129-z.
[39] Wójcik, F. (2024). An analysis of novel money laundering data using heterogeneous graph isomorphism networks: FinCEN Files case study. *Econometrics. Ekonometria. Advances in Applied Data Analysis*, 28(2), 32-49.

Застосування штучного інтелекту для виявлення аномальних транзакцій як новий напрям у боротьбі з відмиванням грошей

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Анотація
Метою дослідження було вивчення ефективності застосування алгоритмів штучного інтелекту в системі фінансового моніторингу. Методологія охоплювала порівняльний аналіз практики США, Європейського Союзу та України, аналіз конкретних випадків міжнародних фінансових інцидентів (США, Європейський Союз, Україна) й оцінювання нормативно-правової бази. Встановлено, що регуляторна база для системи, що ґрунтується на правилах, закріплена в міжнародних стандартах Групи з фінансових заходів проти відмивання грошей та реалізована в законодавстві Європейського Союзу, Сполучених Штатів та України, що забезпечує прозорість контролю та одночасно знижує адаптивність до нових схем. У Сполучених Штатах правові норми забезпечують сувору звітність і санкції, проте ці норми продемонстрували критичні прогалини в моніторингу, що ґрунтується на правилах. У Європейському Союзі багаторівневі директиви посилили централізований нагляд, водночас нерозв'язаною залишилася проблема бюрократичної інерції. В Україні боротьба з відмиванням грошей у сфері криптовалют є недостатньо ефективною. Виявлено, що в рішеннях Вищого антикорупційного суду за 2024 рік було зафіксовано випадки використання дробних земельних угод на суму понад 3,1 млн доларів, а також великомасштабні організовані схеми, які системи, що ґрунтуються на правилах, не виявили. Статистика за 2024 рік (1,75 млн фінансових звітів, 12,1 млрд грн вилучених активів) продемонструвала масштаби системи протидії відмиванню грошей в Україні, а також засвідчила необхідність зменшення кількості помилкових спрацьовувань і посилення аналітики. Узгодження з міжнародною практикою продемонструвало, що ефективності майбутніх рішень щодо протидії відмиванню грошей в Україні можливо досягти лише за умови поєднання нормативно-правової бази з моделями штучного інтелекту, які відповідають вимогам Групи з фінансових заходів проти відмивання грошей та Європейського Союзу. Практичне значення дослідження полягає в застосуванні результатів банками, регуляторними органами та правоохоронними органами України для зменшення кількості помилкових спрацьовувань, виявлення складних схем й адаптації систем моніторингу до міжнародних стандартів

Ключові слова:
пояснюваність моделі; федеративне навчання; графічні нейронні мережі; графічні автокодери; зменшення кількості помилкових спрацьовувань; операції з криптовалютою; конфіденційність транзакційних даних

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Theoretical and legal analysis of certain aspects of forensic characterisation of violations of the laws and customs of war

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Abstract
The relevance of the study is determined by the need to improve theoretical and practical approaches to the investigation of war crimes, ensuring their effective detection and documentation in the process of proof. The purpose of the study was a comprehensive investigation of the structural elements of the criminalistic characteristics of war crimes provided for in both Article 8 of the Rome Statute of the International Criminal Court and Article 438 of the Criminal Code of Ukraine, considering the practice of national and international courts, and the development of proposals for optimal ways of Investigation. The methodological basis of the research was formal legal, comparative legal, dogmatic, systematic methods, empirical study of investigative and judicial practice. The practical basis of the study was the materials of criminal proceedings on the fact of committing war crimes committed on the territory of Ukraine, and the case law of international (special) tribunals. As a result of the research, the content and structure of the criminalistic characteristics of war crimes were clarified, its significance for establishing the circumstances to be proved was determined, and key problems that affect the process of proof in an armed conflict were identified. Attention was paid to the contextual signs of violations of the laws and customs of war, which were integrated into the criminalistic characteristics of war crimes, as system-forming elements that determine the specifics of investigations, considering the method of commission, the mechanism of the event, the identity of the criminal and the victim, socially dangerous consequences, and their relationship with what was committed. For the first time, forensic signs of war crimes were systematised, considering international legal qualifications and specific conditions of investigation. The practical significance of the results obtained lies in the possibility of their use in the practical activities of the pre-trial investigation bodies, the prosecutor's office and the court to increase the effectiveness in the investigation process and prove the guilt of persons involved in violations of the laws and customs of war

Keywords:
war crime; specifics of investigation; contextual circumstances; international law; emergency circumstances; martial law; proof process

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Introduction

War as a socio-political phenomenon requires proper legal support not only in terms of mobilisation processes, but also in the procedure for documenting related crimes. In the methodological sense, it is the object of research not only in military science, but also in a wide range of other disciplines – from history and political sciences to law, sociology, and psychology. This necessitates the application of an interdisciplinary approach to the study of its nature, consequences, and mechanisms, which indicates an interdisciplinary object of research, within which the impact of war on the individual, society, international security, and law and order is indicated.

In the context of armed conflict, many social processes become extreme, which directly affects the mechanisms of committing crimes, the specifics of their detection, disclosure, and investigation. In this context, a prerequisite for the proof process is the establishment of contextual and legal circumstances that indicate the individual responsibility of participants in an armed conflict within the framework of international humanitarian and criminal law. Thus, considering the violation of the laws and customs of war as a systemic phenomenon in the structure of international crimes, it should be emphasised that the key (basic) crime in this context is the act of armed aggression itself, since it creates the prerequisites for the commission of other related violations of international humanitarian law.

This aspect reveals such a terminological group as *jus in bello* and *jus ad bellum*. Analysing these concepts, R. Kolb (1997) noted that despite the widespread perception of their centuries-old history, they entered the international legal terminology relatively recently. The reason for this, according to S. Sefriani (2024) and Y. Ka Lok (2022), is that until the beginning of the 20th century, the concept of just war prevailed in the doctrine of international law – *bellum justum*. Within the latter, war was recognised as a permissible and fair act if it was of a defensive nature, was aimed at restoring violated rights, restoring lost status or property, collecting debt or committing retribution. In such circumstances, the subject of legal analysis was the very fact of the beginning of an armed conflict, while its specific consequences acquired a derivative character (Liang, 2021). In other words, universal law *in bello* and *ad bellum* did not exist. Accordingly, the rights and obligations of the belligerents depended solely on the actual situation, the stated motives and the material validity of the reasons, which were determined by a fair basis for its resolution and conduct.

Subsequently, as noted by L. Peperkamp (2020) and F. Grimal & M.J. Pollard (2024), evolution of the doctrine *bellum justum* gave in to the idea that states (monarchs) have a discretionary right to wage war and use it as a tool for implementing national policy. In this context, the attention of researchers has shifted from the problems of the legality of the outbreak of war to issues related to the rights and obligations that arise in the process of its conduct – *durante bello*. According to R. Kolb (1997), in fact, this is the beginning of the formulation of the principle *jus in bello* in the contemporary sense.

It is believed that one of the first to introduce this term into international scientific use was an Austrian international lawyer, a representative of the so-called "Vienna School of International Law" L.J. Kunz. In the monograph "Law of War and the Law of Neutrality", he gave a clear definition of the concept *jus in bello* noting that the term should be applied to all parties to an armed conflict, irrespective of whether their actions are lawful in terms of *jus ad bellum* emphasising the importance of distinguishing between the right to wage war and the rules of conduct (Kunz, 1939).

Already in 1937, one of the fundamental scientists in the field of public international law of the mentioned century, A. Ferdross, applied the term *jus in bello* in an absolutely identical sense as Kunz, correlating it with the concept of "military law" or "law of war" (Kolb, 1997). However, as the researchers note, during this period, the above definition was not used in international practice. Its practical application took place after the Second World War, as a result of which a clear terminological distinction was made between *jus in bello* and *jus ad bellum* as key elements of international humanitarian law that ensure the legality of war, the humanity of its conduct, and the protection of persons who do not take part in hostilities.

This leads to the need for an in-depth analysis of war crimes committed on the territory of Ukraine not only through the prism of doctrine *jus in bello*, but also in the plane of topical issues of a procedural and forensic nature that arise in the course of their investigation. It is these aspects that will form the purpose of this study, which is determined by the theoretical and legal analysis of certain aspects of the forensic characterisation of violations of the laws and customs of war.

Materials and Methods

The normative basis of the study was a set of provisions of international and national legislation regulating certain aspects of the activities of law enforcement agencies in the detection, disclosure, investigation, and prevention of war crimes. In particular, certain provisions of the Rome Statute of the International Criminal Court [1], the Law of Ukraine on criminal liability[2], criminal procedure legislation[3], international humanitarian

[1] Rome Statute of the International Criminal Court. (1998, July). Retrieved from https://zakon.rada.gov.ua/laws/show/995_588#Text.
[2] Criminal Code of Ukraine. (2001, May). Retrieved from https://zakon.rada.gov.ua/laws/show/2001-05#Text.
[3] Criminal Procedure Code of Ukraine. (2012, April). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17#Text.

law[1,2,3], legislation of Ukraine on civil protection of the population[4], etc., were used. The theoretical basis of the research was the analysis of scientific and methodological sources that analyse certain forensic aspects of the investigation of war crimes, in particular, those committed on the territory of Ukraine.

The practical basis of the study was the analysis of investigative and judicial practice on the investigation of war crimes on the territory of Ukraine[5], and the study of the case-law of international criminal tribunals, in particular, the international tribunal for the former Yugoslavia (Press Releases of the International..., 1996). The norms of customary international humanitarian law were also analysed within the framework of forensic characterisation (International Committee of the Red Cross, 2006).

The methodological basis of the research was formed considering a combination of general scientific and special methods of cognition, the use of which provided a proper substantiation for the research tasks and obtaining scientifically based results based on their solution. In particular, the formal legal method was used to analyse and systematise the provisions of laws and regulations related to the subject of research. The comparative legal method was used to identify differences and common features in the approaches of national and international law to the object of research. The dogmatic method allowed revealing the content of legal concepts and categories related to the subject of research. The method of analysis of scientific sources was used to generalise scientific and methodological approaches to determining the features of forensic characteristics of war crimes. The empirical analysis of judicial practice was carried out to investigate the decisions of national courts of Ukraine and international courts on the specifics of the investigation of war crimes. The generalisation method was used to form conclusions and provide suggestions.

Results and Discussion

Forensic characterisation of violations of the laws and customs of war is a structured system of information and/or data that reflects the natural connections between individual elements of illegal activity and its consequences. It serves as a guide for authorised participants in criminal proceedings in the process of establishing circumstances that are subject to proof, putting forward and verifying investigative versions, and choosing the most optimal ways of investigation.

In a practical sense, it performs the function of determining the priority areas of Investigation, forming reasonable hypotheses about the commission of a crime, the offender, the victim, traces and mechanisms of trace formation, and other criminalistically significant information that is important in the process of proof. According to Yu. Chaplynska (2019), the application of systematised knowledge that makes up the content of forensic characteristics becomes particularly relevant at the initial stage of pre-trial investigation, which is characterised by a lack of primary information about illegal activities. As an integral part of the forensic methodology, it applies a comprehensive approach to the analysis and description of typical features of this activity, aimed at solving the problems of criminal proceedings. Despite this, depending on the specific type of criminal offence, some of its elements may acquire decisive significance, while others may play a secondary role or have no relevance at all. On this matter, A. Kuntiy (2019) emphasised that although Article 91 of the Criminal Procedure Code of Ukraine[6] determined the general circumstances to be established in the process of proof, its provisions did not consider the specifics of certain categories (groups) of criminal offences, their specifics and individual characteristics. Actually, this also applies to violations of the laws and customs of war, where the so-called contextual and legal elements are crucial in the proof process. It is they who establish the fact that there is or is not an event of a socially dangerous act that falls under international jurisdiction in accordance with the provisions of the Rome Statute of the International Criminal Court[7].

Given the above, it is advisable to consider the criminalistic characteristics of war crimes as a systematic description of typical signs and specific features of violations of the laws and customs of war, aimed at ensuring a complete, comprehensive, and objective investigation. In this context, it is reasonable to distinguish between two groups of elements. The first one covers the general signs inherent in a wide range of socially dangerous acts. These were the main focus of K. Shevchyshena (2024). Studying the general aspects of the investigation of war crimes, their characteristic features include the circumstances that characterise the event of a criminal offence and justify its criminal legal assessment, the

[1] Geneva Convention relative to the Protection of Civilian Persons in Time of War. (1945, August). Retrieved from https://zakon.rada.gov.ua/laws/show/995_154.
[2] Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armies in the Field. (1949, August). Retrieved from https://zakon.rada.gov.ua/laws/show/995_151#Text.
[3] Geneva Convention relative to the Treatment of Prisoners of War. (1949, August). Retrieved from https://zakon.rada.gov.ua/laws/show/995_153#Text.
[4] Civil Protection Code of Ukraine. (2012, October). Retrieved from https://zakon.rada.gov.ua/laws/show/5403-17#Text.
[5] Verdict of the Oktyabrsky (Shevchenkivsky) District Court of Poltava in Case No. 554/3925/22. (2022, June). Retrieved from https://reyestr.court.gov.ua/Review/104701812.
[6] Criminal Procedure Code of Ukraine. (2012, April). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17#Te.xt.
[7] Rome Statute of the International Criminal Court. (1998, July). Retrieved from https://zakon.rada.gov.ua/laws/show/995_588#Text.

identity of the applicant, the victim, witnesses and eyewitnesses of its commission, the identity of the criminal, their purpose and motives, socially dangerous consequences that determine the type and amount of damage caused and affect the measure of punishment.

As the researcher emphasised, it is important for the effective investigation of war crimes to find the way in which the crime is prepared, committed and concealed, and information about the identity of the criminal and victim, which is empirically confirmed in the results of the conducted sociological study by K. Shevchyshena (2024). In this context, the researcher emphasised that the process of investigating war crimes largely depends on typical investigative situations that determine the activities of pre-trial investigation bodies. These include the place and method of committing a war crime, the identity of the victim, the object of criminal encroachment, the nature of the trace picture, and the presence or absence of information about the suspect.

This opinion can be either agreed with or questioned. Undoubtedly, the elements identified are essential for ensuring the proper investigation of war crimes. However, they are of a general type and are not limited to investigating only violations of the laws and customs of war. In addition, although the significance of individual components of the forensic characteristic is confirmed by empirical data from the results of interviews with investigators, however, these results cannot be considered final, since their assessment may be influenced by cognitive biases.

As noted by D. Lazareva (2025), the specifics of the investigation of war crimes are determined by the specifics of their qualification, which covers a wide range of illegal acts defined by the norms of international law. These acts can be qualified as war crimes only if there are appropriate contextual circumstances that are causally related to the subject of proof. They determine the key elements of the forensic characteristic and influence the features of the proof process.

On this occasion, O. Agarkova (2024) noted that in the process of investigating war crimes, facts and circumstances must be established that allow identifying individual signs of a particular socially dangerous activity. Depending on the form of the objective side, such circumstances include the beginning, duration, and prevalence of an armed conflict, its type, and the spatial and temporal relationship between the act itself and the armed conflict. This is conditioned by the fact that war crimes can only be committed in conditions of armed conflict. Consequently, violations of the laws and customs of war occur in the context of this conflict, regardless of whether a state of emergency has been officially introduced.

In other words, the territorial boundaries of an offence usually cover a war zone or other areas directly related to the conduct of an armed conflict. That is why, from a territorial standpoint, war crimes are committed in conditions of armed conflict. In turn, armed conflict as a key legal context of a war crime manifests itself in the form of active military operations, which, according to I. Kostiuk & A. Sakovsky (2024), determine the specifics of the combat situation. It may include the location of armed formations, strategic and tactical changes, the impact of military operations on the civilian population, and other contextual circumstances that shape the conditions of the offence.

Establishing the location of violations of the laws and customs of war is of key importance not only for proper qualification, but also for determining territorial jurisdiction. According to O. Agarkova (2024), as part of the pre-trial Investigation, special attention should be paid to the circumstances that characterise the spatial and temporal parameters of the committed act. For example, in the context of the use of weapons prohibited by international humanitarian law, such elements include the place of launch, departure and arrival of ammunition, the trajectory of its movement (flight), the method and type of weapons used, the type of targets, and other relevant data that allows objectively recreating the picture of the crime.

One example is the events that took place on 14 January 2023 in the city of Dnipro, when more than 40 civilians were killed as a result of a missile strike on a multi-storey residential building. According to the established data, the strike was carried out by a high-precision missile of the X-22 type, which, according to its tactical and technical characteristics, is designed to hit large, pre-identified targets (Anniversary of the missile..., 2024). Simultaneously, no military facilities were found in the immediate vicinity of the strike site, which gives grounds to conclude that the principle of differentiation (selectivity) of the object of attack was deliberately violated.

Given the absence of military necessity and the purposeful nature of a strike on an object that is not a military target, such actions should be regarded as a purposeful attack on the civilian population, which, according to Article 8 of the Rome Statute, falls under the qualification of a war crime[1]. The legal assessment of such acts requires the pre-trial investigation bodies to provide a comprehensive and objective analysis of the circumstances that allow them to provide answers to key questions related to the tactical and technical characteristics of the weapons used, the nature of the affected object, its spatial distance from potential military targets, the possibility of its identification, the evidence of its civilian purpose, and the presence or absence of measures for preliminary clarification and verification of targets.

That is why one of the key elements of the event of a criminal offence under Article 438 of the Criminal

[1] Rome Statute of the International Criminal Court. (1998, July). Retrieved from https://zakon.rada.gov.ua/laws/show/995_588#Text.

Code of Ukraine[1], is a method of its commission, which covers the nature of the offender's actions, the means of destruction used, the sequence of implementation of criminal intent, and circumstances indicating a deliberate or careless attitude to possible consequences. In the context of violations of the laws and customs of war, the method of commission is crucial not only for establishing the actual circumstances of the wrongful act, but also for its international legal qualification.

For example, according to Article 8 of the Rome Statute[2], an intentional attack on civilian objects, i.e., objects that are not military targets, qualifies as a war crime. In turn, the provisions of Article 51 of Additional Protocol I to the Geneva Convention of 1949[3] regarding the protection of victims of international armed conflicts prohibit indiscriminate attacks, in particular, those that may cause excessive civilian casualties or damage to civilian infrastructure in comparison with the expected military advantage. This means that the use of weapons in the absence of a military purpose and failure to comply with the principles of proportionality, selectivity, differentiation, and military necessity in this regard indicates a violation of international humanitarian law, and, accordingly, can serve as a basis for qualifying such acts as war crimes.

When analysing the method of committing violations of the laws and customs of war, it is necessary to consider the specific context conditioned by the specifics of illegal acts (Shulzhenko, 2022). Therefore, when interpreting the disposition of Article 438 of the Criminal Code of Ukraine, it is justified to refer to the norms of international humanitarian law, which establish general principles, rules, and customs of the use of force during an armed conflict. In this context, O. Taran (2022) noted that an important criterion for the criminal law assessment of a particular case of violation of the laws and customs of war is the content of regulations defining the permissible limits of conducting an armed conflict.

The researcher emphasises that the structure of circumstances to be established during the investigation of war crimes, as an element of forensic characteristics, should also include a specific legal environment formed under the influence of international law. In her opinion, this allows authorised participants in criminal proceedings to understand the content of both contractual and customary norms of international law in the process of establishing the legality of resolving an armed conflict *jus ad bellum* – the "right to war", and the procedure and rules for conducting it *jus in bellum* – "the right of war". In fact, these aspects are also focused on by other researchers who suggest that using the phrase "violation of the laws and customs of war", the contracting parties to the London[4], and later the Rome Statutes[5], deliberately expanded the boundaries of the criminal and legal characterisation of war crimes, going beyond the scope of international humanitarian law (Rubanenko, 2024).

That is, in the national context of Article 438 of the Criminal Code of Ukraine[6], it is necessary to interpret in a systematic way not only international humanitarian law, but also other international legal acts that regulate relations during an armed conflict and determine responsibility for their violation. This means that the national approach to the qualification of war crimes is covered by a wide range of socially dangerous acts, including not only serious violations of international humanitarian law, but also other acts prohibited by ratified international treaties (Hlovyuk & Teteryatnyk, 2022; Antonyuk, 2023).

In other words, the scope of legal regulation of responsibility for the commission of war crimes is not limited exclusively to the norms of international humanitarian law. This activity is covered by a wide contractual system of laws and regulations of international importance that define the legal limits of conducting armed conflicts, establish requirements for the protection of the civilian population, the wounded and sick, prisoners of war, persons no longer participating in combat operations, medical and spiritual personnel, civilian objects, cultural values, the environment, critical infrastructure, etc.

Therefore, the legal qualification of war crimes should be carried out not only based on Article438 of the Criminal Code of Ukraine[7], but also consider international treaties that establish the signs and composition of such offences, depending on the specific case of illegal activity and the method of its commission. This refers to the norms of the Rome Statute[8], where Article 8 specifies the types of war crimes and formulates the methods of their commission, and the provisions of the Geneva Conventions of 1949 and their Additional Protocols. These acts, in conjunction with other international treaties, regulate responsibility for war crimes and contribute to the development of an integral legal framework in the system of international criminal law.

In this context, the norm of Article 438 of the Criminal Code of Ukraine[9], reflects the national legal

[1] Criminal Code of Ukraine. (2001, May). Retrieved from https://zakon.rada.gov.ua/laws/show/2001-05#Text.
[2] Rome Statute of the International Criminal Court. (1998, July). Retrieved from https://zakon.rada.gov.ua/laws/show/995_588#Text.
[3] Protocol Additional to the Geneva Conventions of (1949, August), Relating to the Protection of Victims of International Armed Conflicts (Protocol I). (1977, October). Retrieved from https://zakon.rada.gov.ua/laws/show/995_199.
[4] Charter of the International Military Tribunal. (1945, August). Retrieved from https://avalon.law.yale.edu/imt/imtconst.asp.
[5] Rome Statute of the International Criminal Court. (1998, July). Retrieved from https://zakon.rada.gov.ua/laws/show/995_588#Text.
[6] Criminal Code of Ukraine. (2001, May). Retrieved from https://zakon.rada.gov.ua/laws/show/2001-05#Text.
[7] Ibidem, 2001.
[8] Rome Statute of the International Criminal Court. (1998, July). Retrieved from https://zakon.rada.gov.ua/laws/show/995_588#Text.
[9] Criminal Code of Ukraine. (2001, May). Retrieved from https://zakon.rada.gov.ua/laws/show/2001-05#Text.

understanding of war crimes as socially dangerous acts for which criminal liability is provided. This demonstrates the normative integration of Ukraine into the system of international criminal law and simultaneously shows solidarity with the international community in matters of inadmissibility of violations of the laws and customs of war, and on the other hand – the commitment of the national legal system to the principle of inevitability of punishment for international crimes.

That is, depending on the nature of the committed act and its consequences, the legal qualification of a particular crime should be carried out using the provisions of Article 438 of the Criminal Code of Ukraine, and relevant norms of international criminal and humanitarian law. This approach ensures that the national criminal justice system is consistent with the civilised world and its standards regarding individual responsibility and the inevitability of punishment for international crimes.

For example, in the case of mass deportation or forced displacement of the civilian population from the occupied territories, legal qualification is possible under the combination of Article 438 of the Criminal Code of Ukraine and subparagraph (viii) of paragraph 2(b) of Article 8 of the Rome Statute[1]. This circumstance confirms the expediency of applying an integrative approach to the legal qualification of socially dangerous acts of international importance. This also applies to illegal attacks on persons protected by international humanitarian law, in particular, prisoners of war, wounded, sick, medical workers, or personnel of humanitarian missions. In such cases, legal qualification is carried out while considering the provisions of Article 438 of the Criminal Code of Ukraine and the norms of international law that directly incriminate the relevant violations.

In this context, Article 3, which is common to all four Conventions of 1949, should be applied, which establishes basic guarantees for the humane treatment of persons who do not participate in the fighting of a non-international armed conflict[2]. Regarding international armed conflicts, it is worth paying attention to the special provisions consolidated in Article 12 (protection of the wounded and sick)[3] and/or Article 13 (treatment of prisoners of war)[4], which determine the legal status and guarantees of persons involved in armed conflict. Additionally, these actions can be qualified as war crimes in accordance with the subparagraph (II) paragraphs 2(a) and subparagraph (I) and subparagraph (2)(b) of Article 8 of the Rome Statute[5].

Special attention should be paid to the analysis of war crimes committed by giving a deliberately criminal order (ordering), which clearly contradicts the provisions of international humanitarian law. Despite the absence in Article 438 of the Criminal Code of Ukraine[6] of specific qualifying characteristics that would indicate an increased degree of public danger of the act in question, from a criminalistic standpoint, the fact of giving a knowingly illegal order that grossly and obviously violates the laws and customs of war should be considered a significant contextual circumstance. This circumstance is an important element of the mechanism for the development and implementation of criminal intent, is important for clarifying the structure of criminal activity, identifying the perpetrators, and describing the roles of each of the participants, for the implementation of proper legal qualification of their actions, and determining the degree of responsibility of each of them.

That is, in the forensic sense, the methods of committing war crimes cover a wide range of techniques, tools, methods, and organisational mechanisms used to prepare, directly commit, and conceal socially dangerous acts. In this context, it is advisable to consider giving a deliberately illegal (criminal) order as one of the forms of organising illegal activities, which determines its structural model, affects the mechanism for implementing criminal intent and is essential for effective detection, documentation, investigation, and prevention of relevant criminal offences. According to the authors of the war crimes investigation standards, developed with the participation of specialists from the General Prosecutor's Office in 2023, it is not enough to bring a person to justice for an international crime only to prove the fact of its commission – it is necessary to establish that a particular person acted in a certain way, and that these actions contributed to the commission of the crime (General Prosecutor's office, 2023).

Non-compliance of the order with the requirements of international humanitarian law is an essential legal fact that is considered when establishing the form of guilt, the legal qualification of the act, determining the subject of a criminal offence and the level of its responsibility. This circumstance also contributes to the differentiation of the roles of accomplices and indicates the organised nature of illegal activities, which is crucial for building a reasonable evidence base.

These provisions are consistent with the norms of International Criminal Law, in particular, Article 28

[1] Rome Statute of the International Criminal Court. (1998, July). Retrieved from https://zakon.rada.gov.ua/laws/show/995_588#Text.
[2] Geneva Convention Relative to the Protection of Civilian Persons in Time of War. (1945, August). Retrieved from https://zakon.rada.gov.ua/laws/show/995_154.
[3] Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armies in the Field . (1949, August). Retrieved from https://zakon.rada.gov.ua/laws/show/995_151#Text.
[4] Geneva Convention Relative to the Treatment of Prisoners of War. (1949, August). Retrieved from https://zakon.rada.gov.ua/laws/show/995_153#Text.
[5] Rome Statute of the International Criminal Court. (1998, July). Retrieved from https://zakon.rada.gov.ua/laws/show/995_588#Text.
[6] Criminal Code of Ukraine. (2001, May). Retrieved from https://zakon.rada.gov.ua/laws/show/2001-05#Text.

of the Rome Statute[1], which provides for the responsibility of commanders and other military chiefs for war crimes in cases where they, firstly, knew or should have known that subordinates were committing or intending to commit war crimes. And, secondly, they did not take all necessary and reasonably possible measures to prevent, stop, warn and ignore them in order to bring those responsible to justice.

Similar standards are contained in Article 87 of the Additional Protocol (I of 1977) to the Geneva Conventions of 1949[2], where commanders are required to take all possible measures to prevent violations of international humanitarian law by subordinate military personnel. If the commander knew or should have been aware of possible or actual violations of the laws and customs of war, but did not take appropriate measures to prevent or stop them, he is liable under international law.

The existence of such a duty is also indicated by Rule 153 of the Code of Customary International Humanitarian Law, developed by the International Committee of the Red Cross (2006). In general terms, it reflects a well-established custom that requires the principle of command responsibility to be respected even in cases where the relevant international treaties have not been ratified by a particular party. That is why the principle of team responsibility is universal and is subject to application within the international legal system, regardless of the contractual status of a particular party. In essence, it formalises the doctrine of individual criminal responsibility on the principle of command, which provides for the legal obligation of military leadership to take effective measures to ensure compliance with international humanitarian law on the part of subordinate personnel.

Thus, giving a criminal order can significantly affect the legal characteristics of a war crime, modify the method of its commission and acquire key importance for detecting, disclosing, investigating and preventing socially dangerous acts that encroach on prohibited norms of warfare. Actions related to the issuance of an order that clearly violates the laws and customs of war can be considered as an aggravating circumstance that determines the structure and content of the method of committing a war crime. This indicates the organisational nature of the participants in a military offence and is essential for the legal qualification of the crime, considering the principle of individual criminal liability.

Other researchers also focused on this, noting that the presence of such a contextual circumstance indicates not only the structure of a war crime, but also its organised form of commission (Taran, 2022; Yankovy, 2023). According to researchers, this is conditioned by the hierarchical nature of the military order, which contains both subjective and substantive elements that must comply with the norms of international humanitarian law. In other words, any military order must comply with the requirements of international law, and therefore not contradict them. This is due to the presumption that both the command staff of the armed forces and subordinate military personnel of armed formations are aware of the norms and customs of warfare. Violation of these rules creates grounds for bringing a person to justice in connection with the loss of the legal status of a combatant. In this case, the person is not only deprived of the protection provided for by international humanitarian law, but is also subject to criminal prosecution for committing war crimes, including in the form of giving an obviously criminal order and its subsequent execution.

Given the above, an integral element of the criminalistic characteristics of war crimes is the identity of the offender (criminal, guilty party), and the establishment of a link between the actions of the perpetrator and the contextual conditions of an armed conflict. Other researchers pointed to this fact, emphasising that not every individual act of violence committed during an armed conflict falls within the scope of international criminal law response (Tolkach, 2023; Yefimenko, 2024). This is possible only if it is established that the act had a direct connection with the armed conflict and was committed within its framework or context. Consequently, the very fact of violation of the laws and customs of war is not sufficient for the legal qualification of an act as a war crime without proving the connection between the actions of a particular person and the armed conflict itself, and without establishing the status of the subject of a war crime and the presence of its subjective side, in particular, the person's awareness of the context of the armed conflict and their intention to act contrary to the norms of international humanitarian law.

This conclusion is justified by international case law. In particular, according to the legal position formulated by the International Criminal Tribunal for the former Yugoslavia (ICTY) on the prosecution of persons responsible for serious violations of international humanitarian law in the territory of the former Yugoslavia, in order to qualify a war crime, it is necessary to find out that the existence of an armed conflict significantly affected the ability of a particular person to commit illegal actions or make a decision on the commission of a war crime, the method of implementing criminal intent, and the purpose and motives by which the person sought to achieve the tasks set (Taran, 2022).

The subjective perception of the nature of the conflict of the perpetrator (in particular, their understanding of the political or legal nature of the war) is not crucial for legal assessment. It is enough only that illegal

[1] Rome Statute of the International Criminal Court. (1998, July). Retrieved from https://zakon.rada.gov.ua/laws/show/995_588#Text.
[2] Protocol Additional to the Geneva Conventions of 1949, and Relating to the Protection of Victims of International Armed Conflicts. Protocol I. (1977, October). Retrieved from https://zakon.rada.gov.ua/laws/show/995_199.

behaviour occurs in the context of an armed conflict and is part of the implementation of a military-political strategy. In other words, the performer's awareness of all components of the military plan or the organisational structure of the military-political leadership is not mandatory. It is sufficient to confirm that what is done is the result of conscious actions in the context of the overall implementation of the relevant strategy or policy of the state in the framework of an armed conflict.

In fact, the International Tribunal for the former Yugoslavia also focused on this. Thus in the case of "Kunarac *et al*." (Prosecutor V., ICTY, IT-96-23/1), the court concluded that a person can be held accountable for a war crime or a crime against humanity, even without having an idea of the overall plan or structure of the high military command (Press Releases of the International..., 1996). In other words, a person accused of international crimes is not required to have full awareness of a political or military strategy, and the fact of deliberately committing actions as part of a large-scale aggression is sufficient. As noted by O. Agarkova (2024), in addition to the form of guilt, the criminal procedure law obliges in each specific case to establish the motives and purpose of a criminal offence, which are considered by the court when determining the public danger of both the act itself and the person who committed it, and when determining the amount of punishment.

Despite the presence of common methodological guidelines in the law enforcement of Article 438 of the Criminal Code of Ukraine[1], the analysis of individual decisions of the domestic courts attests to certain shortcomings in the wording of the charge and the description of the actual circumstances of the commission of the offence. For example, in the verdict of the (Oktyabrsky) Shevchenkivsky District Court of Poltava dated June 9, 2022 in case No. 554/3925/22[2] (criminal proceedings No. 1-kp/554/387/2022), on the grounds of crimes under Part 2 of Article 111, part 2 of Article 260 and Article 438 of the Criminal Code of Ukraine, it was established that the accused, being in the conditions of an international armed conflict, acting intentionally, committed illegal possession of vehicles on the territory of one of the state-owned enterprises of the Sumy Oblast, which caused material damage in the amount of UAH 232,048. In the reasoning part of the relevant court decision, the description of the incriminated act does not contain an indication of its purpose and motives, it does not specify which norm of international humanitarian law was violated, and there is no clear and convincing link between the illegal act and the context of the armed conflict. In other words, questions remain as to whether the act falls within the qualification of a war crime within the meaning of international criminal and humanitarian law, or whether the act should be considered in the context of general responsibility that occurred within the framework of an armed conflict.

In such circumstances, there is a risk of erroneous legal qualification, which can lead to ignoring the specifics of a war crime, which implies not only objective and subjective signs, but also the need to establish a link between the act, the context of an armed conflict and its international legal consequences. This significantly affects the direction of intent of the subject of the crime, determines the choice of ways to implement criminal intentions, and also determines the goals, motivational factors and other relevant elements of the actual circumstances of the criminal offence.

O. Agarkova (2024) noted that within the framework of criminal proceedings, factual data should be established that confirm the existence of an armed conflict, its relationship with an illegal act and socially dangerous consequences, which allows identifying victims of a criminal offence, and identifying objects of encroachment that are protected by international humanitarian law. Describing the potential range of subjects of war crimes, the researcher referred to direct participants in the armed conflict, persons who were involved in the planning, organisation, or implementation of military operations, representatives of the administrative and command staff who control the provision of law and order, including in the occupied territories (Agarkova, 2024).

A somewhat detailed differentiation of the subjects of war crimes was given by K. Shevchyshena (2024), dividing the latter into representatives of the military-political leadership, the highest command staff, other military personnel involved in the armed conflict, members of illegal armed groups and private military companies involved in the armed conflict, and persons cooperating with one of the parties to the conflict for political, ideological, material, personal, and other reasons.

In fact, the above classification is consistent with the research data, where the subjects of war crimes can be differentiated into four main groups. Firstly, combatants from among the armed forces of a state party to an armed conflict. Secondly, persons acting on behalf of or in the interests of one of the parties to the conflict, including mercenaries, volunteers, and members of armed groups. Thirdly, commanders, military chiefs, and representatives of the military-political leadership who can both personally commit illegal actions and bear legal responsibility for giving orders, which directly contradicts the provisions of international humanitarian law. Fourthly, civil or service organisations that take an active part in the implementation of military tasks, or perform the assigned powers within the structure or functions of the belligerent party

[1] Criminal Code of Ukraine. (2001, May). Retrieved from https://zakon.rada.gov.ua/laws/show/2001-05#Text.
[2] Verdict of the Oktyabrsky (Shevchenkivsky) District Court of Poltava in Case No. 554/3925/22. (2022, June). Retrieved from https://reyestr.court.gov.ua/Review/104701812.

(representatives of security agencies, intelligence, law enforcement agencies, the penitentiary system, medical institutions, employees of defence or infrastructure enterprises, etc.).

The functioning of these categories of subjects of war crimes is based on a well-established system of subordination relations, which is formed on the principle of unity of command. This fundamental approach provides for a clear division of management functions and responsibility for their proper implementation. Accordingly, military commanders (chiefs) have the power to make decisions, give orders and ensure their implementation within a certain competence, where the structural hierarchy is implemented both through vertical subordination (for example, by rank) and through functional affiliation (for example, by official position).

Subordination relations in the military structure are determined not only by the specifics of internal military service, but also serve as the foundation for establishing individual and command responsibility. It follows from this that commanders and other military chiefs are subjects of war crimes not only if they are directly involved in illegal acts, but also as persons who have given clearly criminal orders or failed to take appropriate measures to prevent or suppress gross (serious) violations of international law. This means that the legal assessment of a person's behaviour as a potential war criminal is inextricably linked with their official position, the nature of functional powers (official duties), and the volume of subordinate personnel.

In this context, the key circumstances to be proved in criminal proceedings on violation of the laws and customs of war should include the injured person (victim), and the scope and nature of socially dangerous consequences caused by the actions of the guilty person in committing a war crime. This involves determining the nature and extent of the physical, moral and/or material (financial) damage caused, which is important for establishing the degree of public danger of the unlawful act, its classification, and for justifying the initiation of a pre-trial investigation.

This was also emphasised by O. Agarkova (2024), referring to the circumstances to be proved the social status of the injured person. This refers to whether the person is a serviceman, a prisoner of war, a civilian, a person endowed with appropriate immunity or protected in accordance with international treaties. Type and legal status of property that has been damaged or reduced as a result of an armed attack, including whether this property belongs to objects that are protected (protected) by international treaty law. Causal relationship between the actions of the perpetrator and the consequences that caused physical, moral (psychological), property or material (financial) damage.

According to K. Shevchyshena (2024), the differentiation of victims of war crimes should be carried out according to three main criteria, which answer the question of whether the victims belong to the civilian population, military personnel, and representatives of humanitarian organisations or peacekeeping missions. However, this classification does not fully meet the needs of practice, since it does not cover all possible participants in war crimes.

The standards of investigation of war crimes developed by specialists in international humanitarian law under the auspices of the Office of the Prosecutor General of Ukraine (Basic investigative standards..., 2016) also do not give clear answers to the questions raised. According to the results of the analysis, they superficially identify three main groups of protected persons who may fall under the category of victims of violations of the laws and customs of war. These subjects include prisoners of war, civilians, and other participants who are protected by international humanitarian law.

A similar opinion is shared by other researchers, dividing the victims into medical and spiritual personnel, persons from the armed forces who laid down their weapons, as well as those who in the status: "hors de combat" – left the fighting due to illness, injury, detention, or for any other reason. This refers to former combatants who no longer participate in an armed conflict as a result of voluntary cessation of hostilities as a result of captivity, injury, illness, or other circumstances that objectively make it impossible for them to continue participating in hostilities (Batyuk & Dmytriv, 2021; Hryga & Burnos, 2024).

In addition, the researchers emphasise that the commission of war crimes can have legal consequences even in the absence of these subjects. As an example, researcherscite situations where military operations cause significant or long-term damage to the environment, attacks are carried out on critical infrastructure, or national cultural treasures are looted, etc. Consequently, the victim, according to researchers, is considered as an optional sign of the objective side of the composition of a criminal offence under Article 438 of the Criminal Code of Ukraine, which seems debatable.

In this context, it should be noted that ignoring the fact of the presence of an injured party contradicts the generally recognised principles of criminal law, according to which damage (physical, property or non-material) is always a mandatory element of an act that acquires criminal significance. In addition, in the context of international humanitarian law, it is the presence of an injured party (both individually defined and collectively) that allows providing a legal assessment of the relevant acts. The absence of the victim as an object of encroachment calls into question the public danger in the understanding of the criminal law doctrine, which requires additional theoretical and legal rethinking. For a holistic distinction of victims in criminal proceedings on the facts of violation of the laws and customs of war, it is advisable to focus on the classification of war crimes (Table 1).

Table 1. Classification of victims in war crimes proceedings based on the forensic aspects of their commission

Based on the type of armed conflict		Based on the location of the offence		Based on the criterion of the legal status of a person in an armed conflict				Based on the illegal orientation and method of commission			Based on the character and scale of consequences			
victims of an international armed conflict	victims of a non-international armed conflict	victims in the occupied territory, including where active military operations are being conducted or not being conducted	victims in the controlled territory, including de-occupied territory	a civilian who has reached the age of majority	a child and/or a person who has not reached the age of majority	a serviceman, including a person involved in an armed conflict and a person who, for objective reasons, is in the status of "hors de combat"	persons with special status and special protection in accordance with international law	victims of attacks on life, health, honour, dignity, inviolability, and personal security	victims of encroachments on property rights	victims of violations of international protection of entities and objects that are under special protection	victims of the death of a person	victims of bodily injury or mutilation	victims of loss or damage to cultural values, national heritage	victims of humanitarian crises (catastrophes)

Source: developed by the authors

In this context, the analysis of socially dangerous consequences of the offences under study is of particular importance. This refers to extraordinary circumstances caused by dangerous events that disrupt the usual mode of life of the population and the functioning of the country. This thesis was confirmed by the classification of emergency situations in the current legislation of Ukraine. Thus, according to Article 5 of the Law on Civil Protection, all emergencies are divided according to the nature of origin, the scale of spread, the level of human losses, and the amount of material damage[1]. Depending on the source of origin of a particular event, emergencies are differentiated into natural, anthropogenic, social, and military ones.

Unlike others, military emergencies arise as a result of armed conflict. As a rule, they cause significant destruction, unpredictable human casualties, disruption of the living conditions of the population, and serious changes in the social, political, economic, and security environment of the country. Researchers also identified combined emergencies that simultaneously combine several types of threats that interact with each other on the principle of a "cascade effect", when the negative consequences of one event provoke the emergence of others. This means that military actions can be a catalyst for the occurrence of anthropogenic disasters, in particular, by damaging critical infrastructure facilities, industrial enterprises, etc. Therefore, war crimes in a broad sense pose a threat to national security. In other words, the consequences of war crimes often cause systemic disturbances in social, economic, political, environmental, and humanitarian stability, which takes society and the state beyond the normal functioning. As a result, circumstances arise that form special conditions for the life of the population and the functioning of the country, which are usually classified as emergency.

Thus, the main criterion for the introduction of a special legal regime of martial law is the occurrence of emergency circumstances of a military nature that violate the normal (normal, regular) living conditions of the population and the functioning of the country as a result of armed conflict and its associated consequences. In most cases, this leads to large-scale destruction, significant human casualties, destruction of elements of biodiversity, environmental threats, and a number of other destabilising factors that pose a threat to the national security of the country.

That is, emergency circumstances of a military nature form the appropriate conditions that make it necessary to introduce a special legal regime – martial law. Emergency conditions are a direct consequence of these circumstances and the basis for the introduction of a special legal regime to localise military threats, stabilise the situation, ensure national security, law and order, and restore the rule of law and the normal functioning of government bodies in conditions of armed conflict.

As noted by D. Lazareva (2025), extraordinary circumstances caused by military operations create specific conditions for the procedural activities of investigative bodies, which affects the methodology of their investigation. In this context, war crimes have a dual legal nature, covering both domestic and international legal contexts. From the standpoint of national jurisdiction, their consequences are expressed by significant human casualties, significant material damage, and violation of normal living conditions of the population both at the level of individual administrative and territorial units and the state as a whole.

In terms of international law, war crimes go beyond the territories of the warring parties, since they constitute a violation of the norms of international humanitarian law and acquire the status of internationally wrongful acts affecting security and stability on a global scale. This leads to a response from the international community and the activation of mechanisms for international criminal prosecution. That is why the effectiveness of the investigation of war crimes requires coordinated interaction between national and international

[1] Civil Protection Code of Ukraine. (2012, October). Retrieved from https://zakon.rada.gov.ua/laws/show/5403-17#Text.

legal institutions, which contributes to the strengthening of the global system of security, law and order, and justice in this area of legal relations. The commission of war crimes causes a significant international response, leading to the development and implementation of the legal policy of the international community aimed at minimising their negative impact on international security and stability.

Conclusions

Criminalistic characterisation of war crimes is a structured system of information that allows authorised participants in criminal proceedings to find out the circumstances of what was committed and effectively collect sufficient evidence to substantiate the guilt of the accused in court for gross violations of the laws and customs of war. This concept should be considered as a structured description of typical features of the type of war crimes, aimed at the effective activities of pre-trial investigation bodies to identify, disclose, investigate, and prevent socially dangerous acts that encroach on the established norms and rules of warfare.

It is appropriate to distinguish two main groups of elements of criminalistic characteristics of war crimes based on their international legal nature and the actual context of commission. The first one consists of general signs that are inherent in a wide range of socially dangerous acts. These include the place, time, method, and instrument of the crime, the nature and severity of the consequences, motives, typical traces (circumstances), and other common elements that allow recreating the model of a criminal event and contribute to its investigation.

The second one covers contextual and legal features that reflect the international legal nature of war crimes. Such circumstances include armed conflict as a mandatory element of the act under study, the legal status of subjects of offence and victims in accordance with the provisions of international humanitarian law, the nature of the object of criminal encroachment, signs of violation of international law, and other factors that determine the specifics of legal qualification under international criminal law and affect the process of proving violations of the laws and customs of war.

That is why it is noteworthy to establish a connection between actions and the contextual features of what was done. This involves finding out the ability of a particular person to commit a war crime, making an appropriate decision, the method of implementing criminal intent, and the goal that they sought to achieve by committing an illegal act and the motives that were the grounds for achieving criminal goals. Therefore, within the framework of criminal proceedings on violation of the laws and customs of war, factual data should be collected that confirm the existence of an armed conflict, the existence of a causal link between it and a specific crime, and allow identifying the culprit, victims, and objects of encroachment that are protected by international humanitarian law. The establishment of these circumstances significantly affects the process of proof itself, where the cognitive significance of each procedural action depends on the specific event of violation of the laws and customs of war.

In further research, it becomes necessary to carry out a detailed analysis of issues related to determining the evidentiary value of questioning in criminal proceedings on violation of the laws and customs of war, investigating the organisational and tactical aspects of its preparation, outlining the main tactical techniques for conducting, and determining methods for properly recording its results.

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References

[1] Agarkova, O. (2024). Detection and recording of violations of the laws and customs of war as a direction of law enforcement agencies. *Scientific Bulletin of the International Humanitarian University. Series: Jurisprudence*, 68, 78-82. doi: 10.32782/2307-1745.2024.68.16.

[2] Anniversary of the missile strike on a residential high-rise building in Dnipro – Russia took the lives of 40 adults and 6 children. (2024). Retrieved from https://surl.li/vnvbfu.

[3] Antonyuk, N. (2023). Contextual element of war crimes: Content and necessity of establishment. *Law of Ukraine*, 5, 30-38. doi: 10.33498/louu-2023-05-030.

[4] Batyuk, O., & Dmytriv, S. (2021). On the issues of organizing war crimes investigations. *Social & Legal Studies*, 3(13), 77-87. doi: 10.32518/2617-4162-2021-3-77-87.

[5] Chaplynska, Yu. (2019). On the question of the essence and structure of the forensic characteristics of crimes. *Scientific Bulletin of the Dnipropetrovsk State University of Internal Affairs*, 3, 194-198. doi: 10.31733/2078-3566-2019-3-194-198.

[6] General Prosecutor Office. (2023). *Standards for the investigation of war crimes. General part. Methodological recommendations*. Retrieved from https://surl.li/rxhhym.

[7] Global Rights Compliance. (2016). *Basic investigative standards for emergency response officers investigating international crimes*. Retrieved from https://surl.li/wnzhqc.
[8] Grimal, F., & Pollard, M.J. (2024). A blurring of lines: The jus ad bellum past, present, and future. *Journal on the Use of Force and International Law*, 11(1-2), 4-15. doi: 10.1080/20531702.2024.2416336.
[9] Hlovyuk, I., & Teteryatnyk, G. (2022). Contextual elements in war crimes proceedings: a sui generis subject of proof. *Legal Scientific Electronic Journal*, 6, 394-398. doi: 10.32782/2524-0374/2022-6/87.
[10] Hryga, M., & Burnos, O. (2024). Documenting the cruel treatment of prisoners of war and civilians: Complications and challenges. *Bulletin of the Luhansk State University of Internal Affairs named after E. Didorenko*, 1(105), 266-275. doi: 10.33766/2786-9156.105.266-279.
[11] International Committee of the Red Cross. (2006). Customary international humanitarian law. Norms. *Ukrainian Journal of International Law*, 2, 7-16.
[12] Ka Lok, Y. (2022). Separation' between jus ad bellum and jus in bello as insulation of results, not scopes, of application. *SSRN*. doi: 10.2139/ssrn.4091411.
[13] Kolb, R. (1997). On the origin of the terminological pair ius ad bellum / ius in bello. *Revue Internationale de la Croix-Rouge*, 79(827), 593-602. doi: 10.1017/S003533610005187X.
[14] Kostiuk, I., & Sakovskyi, A. (2024). Characteristics of the qualification of exceeding authority or official authority by a military official personal by subjective characters. *Bulletin of Kharkiv National University of Internal Affairs*, 105(2), 96-109. doi: 10.32631/v.2024.2.33.
[15] Kuntiy, A. (2019). Tactics of an investigative experiment during the investigation of a premeditated murder committed in a state of strong emotional excitement. *Comparative-Analytical Law*, 4, 393-396.
[16] Kunz, J.L. (1939). The problem of revision in international law. *American Journal of International Law*, 33(1). 33-55. doi: 10.2307/2190837.
[17] Lazareva, D. (2025). Evidence in criminal proceedings regarding war crimes. *Legal Scientific Electronic Journal*, 1, 483-486. doi: 10.32782/2524-0374/2025-1/111.
[18] Liang, Z. (2021). Chinese perspectives on the ad bellum/in bello relationship and a cultural critique of the ad bellum/in bello separation in international humanitarian law. *Leiden Journal of International Law*, 34(2), 291-320. doi: 10.1017/S0922156521000054.
[19] Peperkamp, L. (2020). *Chapter 5. The relationship between jus ad bellum and jus post bellum. In jus post bellum*. Leiden: Brill. doi: 10.1163/9789004411043_006.
[20] Press Releases of the International Criminal Tribunal for the former Yugoslavia in Case Kunarac et al. (IT-96-23 & 23/1)". (1996). Retrieved from https://www.icty.org/en/case/kunarac.
[21] Rubanenko, N. (2024). Concept, typology and characteristics of international crimes: Systematic analysis. *Forum of Law*, 79(2), 84-95. doi: 10.5281/zenodo.10933562.
[22] Sefriani, S. (2024). The dichotomy of jus ad bellum and jus ad bello in the 21st century: Its relevance and reconstruction. *Journal of Law*, 9(2), 210-230. doi: 10.22304/pjih.v9n2.a4.
[23] Shevchyshena, K. (2024). *Investigation of war crimes in Ukraine*. (Doctoral thesis, National Academy of Internal Affairs, Kyiv, Ukraine).
[24] Shulzhenko, A. (2022). Problems of proving the objective side in crimes of violation of the laws and customs of war. *Bulletin of the Luhansk State University of Internal Affairs named after E. Didorenko*, 2(98), 261-270. doi: 10.33766/2524-0323.98.261-270.
[25] Taran, O. (2022). Circumstances that are subject to proof during the investigation of violations of the laws and customs of war. *Legal Scientific Electronic Journal*, 7, 413-416. doi: 10.32782/2524-0374/2022-7/100.
[26] Tolkach, A. (2023). Forensic characteristics of war crimes committed by the Russian army against the civilian population in the Chernihiv region from February 24 to April 2, 2022. *Electronic Scientific Publication "Analytical and Comparative Law"*, 4. doi: 10.24144/2788-6018.2023.04.66.
[27] Yankovy, M. (2023). Investigation of criminal offenses committed by military personnel during armed conflict: Problem statement. *Academic Visions*, 18. doi: 10.5281/zenodo.7795218.
[28] Yefimenko, T. (2024). Peculiarities of evidence in criminal proceedings on war crimes. *Bulletin of the Criminological Association of Ukraine*, 3(33), 284-294. doi: 10.32631/vca.2024.3.25.

Теоретико-правовий аналіз окремих аспектів криміналістичної характеристики порушень законів і звичаїв війни

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Анотація
Актуальність дослідження зумовлена необхідністю вдосконалення теоретичних і практичних підходів до розслідування воєнних злочинів, забезпеченням ефективного їх виявляння та документування в процесі доказування. Метою дослідження було комплексне вивчення структурних елементів криміналістичної характеристики воєнних злочинів, передбачених як ст. 8 Римського статуту Міжнародного кримінального суду, так і ст. 438 Кримінального кодексу України, з огляду на практику національних і міжнародних судових інстанцій, а також розроблення пропозицій щодо оптимальних шляхів розслідування. Методологічну основу дослідження становили формально-юридичний, порівняльно-правовий, догматичний, системний методи, емпіричне вивчення слідчої та судової практики. Практичною основою дослідження є матеріали кримінальних проваджень за фактом вчинення воєнних злочинів, на території України, а також прецедентна практика міжнародних (спеціальних) трибуналів. За результатами проведеного дослідження уточнено зміст і структуру криміналістичної характеристики воєнних злочинів, окреслено її значення для встановлення обставин, що підлягають доказуванню, а також ключові проблеми, які впливають на процес доказування в умовах збройного конфлікту. Увагу зосереджено на контекстуальних ознаках порушень законів і звичаїв війни, які були інтегровані в криміналістичну характеристику воєнних злочинів як системоутворювальні елементи, що визначають специфіку розслідувань залежно від способу вчинення, механізму події, особи злочинця та потерпілого, суспільно небезпечних наслідків та їх взаємозв'язку з учиненим. Уперше систематизовано криміналістичні ознаки воєнних злочинів на підставі міжнародно-правової кваліфікації та специфічних умов розслідування. Практичне значення одержаних результатів полягає в можливості їх використання в практичній діяльності органів досудового розслідування, прокуратури та суду задля підвищення результативності в процесі розслідування та доведення вини осіб, причетних до порушень законів і звичаїв війни

Ключові слова:
воєнний злочин; особливості розслідування; контекстуальні обставини; міжнародне право; надзвичайні обставини; воєнний стан; процес доказування

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