

Conducting Forensic Multidisciplinary Examinations and Sets of Forensic Examinations Using Specific Expertise in Economics

Viktoriya Slyusarenko * ^a, Oleksiy Khomutenko ** ^b, Svitlana Tarasyutina *** ^c

* PhD in Economics, Docent, NSC «Hon. Prof. M. S. Bokarius FSI», Kyiv, Ukraine,

ORCID: <https://orcid.org/0009-0005-3700-2100>, e-mail: viktoorijsaaa@gmail.com

** PhD in Economics, Senior Researcher, NSC «Hon. Prof. M. S. Bokarius FSI», Kharkiv, Ukraine, ORCID: <https://orcid.org/0000-0001-7096-7944>, e-mail: lsed@ukr.net

*** NSC «Hon. Prof. M. S. Bokarius FSI», Kharkiv, Ukraine, ORCID: <https://orcid.org/0000-0002-4271-0487>, e-mail: ex0953191170@gmail.com

^a Writing – original draft, project administration, supervision.

^b Resources, writing – original draft.

^c Software, writing – original draft.

DOI: [10.32353/khrife.1.2024.12](https://doi.org/10.32353/khrife.1.2024.12) UDC 343.98

Received: 27.02.2024 / Reviewed: 28.02.2024 / Accepted for print: 27.03.2024 /

Available online: 29.03.2024



The quality of forensic examination depends on a forensic expert's qualification and his/her in-depth and responsible research on objects, the investigation of which arose during pre-trial investigation or trial. Currently, expert methodologies for conducting forensic multidisciplinary economic examinations and sets of forensic examinations require improvement, especially in light of wartime conditions. Multidisciplinary examination reflects contemporary theoretical trends by integrating legal norms into practical application to address urgent tasks in pre-trial investigations and court proceedings. The most efficient approach is to use a set of methods and technical means that give rise to new branches of scientific knowledge, determine the regularities of their practical significance, and establish interdisciplinary links. At the same time, multidisciplinary examination demonstrates high efficiency and broad possibilities through the combined and synthesized application of knowledge from diverse scientific fields and technical tools in

This article is translation of the original Ukrainian content, which source is available at the link: <https://khrife-journal.org/index.php/journal> (translated by Daryna Dukhnenko). The authors acknowledge translation as corresponding to the original.

© 2024 The Author(s). Published by National Scientific Center «Hon. Prof. M. S. Bokarius Forensic Science Institute» & Yaroslav Mudryi National Law University.

This is an open access article distributed under Creative Commons Attribution License (CC_BY_4.0.0) allowing unlimited use, distribution and reproduction on any medium, subject to reference to the Author and original sources.

addressing tasks assigned to a forensic expert. Sequential conduct of various types of forensic examinations during the resolution of multidisciplinary tasks in some cases ensures the reliability of expert conclusions and optimizes the judicial process. Multidisciplinary examination conclusions have a varied impact on the decisions made by the parties to the dispute. Therefore, improving the methodology of conducting forensic multidisciplinary examinations or sets of forensic examinations during the resolution of complex issues, which often arise in conditions of martial law, is relevant. This allows for the determination of unified approaches to addressing problematic aspects of such research.

Keywords: forensic multidisciplinary examination; sets of forensic examinations.

Research Problem Formulation

The efficiency of conducting a forensic examination depends on a forensic expert's qualification and methodological toolkit he/she uses when researching objects that have raised questions from pre-trial investigation bodies, the court, defense counsel, or parties to civil-commercial proceedings.

Today, the work of a forensic expert in Ukraine is complicated by the introduction of martial law, under which new objects, phenomena and processes appear, which were previously either not studied at all or insufficiently studied. In addition, issues at the intersection of different fields¹ and that cannot be solved by a single expert within a single area of expertise become relevant. Among the most pressing issues are the destruction of buildings and structures, documentary registration of business transactions involving the transfer of property to the military, forgery of signatures in documents, etc. A significant portion of expert tasks involves conducting research with the participation of forensic experts who are qualified in various

fields of knowledge or different experts: specialists in specific fields of knowledge. This is done with the aim of completing a joint multidisciplinary task or conducting a set of forensic examinations.

The need for conducting forensic multidisciplinary examinations or sets of forensic examinations under martial law has emphasized the importance of our research, especially the necessity to enhance expert methodologies by involving forensic economists.

Article Purpose

To justify the necessity for developing scientific and methodological guidelines on issues associated with the appointment and conduct of multidisciplinary examinations requiring specific expertise (particularly, economic expertise).

The research task is to analyze and determine the criteria for distinguishing between the reasons for conducting forensic multidisciplinary examinations and sets of forensic examinations when resolving complex issues arising from the implementation of martial law.

1 Сімакова-Єфремян Е. Б. Теоретико-правові та методологічні засади комплексних судово-експертних досліджень : автореф. дис. ... д-ра юрид. наук. Харків, 2017. 40 с. URL: <https://dspace.nlu.edu.ua/jspui/handle/123456789/13451> (date accessed: 06.02.2024).

Research Methods

As is known, the methodology of scientific research is a set of principles, means, methods, and forms of organization and conduct of scientific exploration of a given issue ².

To address the specific problematics outlined in this article, the authors utilized general methods (such as comparison, induction, deduction, etc.), individual methods, and special methods. Comparison enabled the identification of similarities and differences between objects and phenomena studied by forensic experts in various fields of knowledge, identifying commonalities and differences in the conduct of multidisciplinary examinations and sets of examinations.

Also, a variety of the comparison method, analogy, has been used, which allows one to understand certain objects

and phenomena based on their similarity to others.

Induction is a method of investigation whereby a general conclusion about the features of a set of elements is drawn based on the study of these features in a subset of elements from one set.

Deduction is a method of logical inference from the general to the specific, in which the object is first examined as a whole, and then its components are studied.

Analysis of Essential Researches and Publications

Foreign and Ukrainian experts in forensic science (namely, V. Bondar ³, O. Bondarenko ⁴, H. Dondyk ⁵, H. Veretun ⁶, N. Klymenko ⁷, M. Kostytskyi and M. Lutskyi ⁸, O. Lytvynov with co-authors ⁹,

- 2 Смирний М. Ф. Основи наукових досліджень : конспект лекцій (для студент. усіх форм навч. за спец. 141 — Електроенерг., електротехн. та електромех.). Харків, 2018. 111 с. URL: <https://core.ac.uk/download/pdf/162019668.pdf> (date accessed: 02.02.2024).
- 3 Бондар В. С. Інформаційно-аналітичне забезпечення проведення судово-балістичних експертиз. *Криміналістика і судова експертиза*. 2017. Вип. 62. С. 280—289. URL: http://nbuv.gov.ua/UJRN/krise_2017_62_34 (date accessed: 02.02.2024).
- 4 Бондаренко О. О. Класифікація судових експертиз у кримінальному судочинстві. *Вісник Харківського національного університету імені В. Н. Каразіна. Серія «Право»*. 2012. № 1028 (12). С. 339—342. URL: <https://univd.edu.ua/science-issue/issue/749> (date accessed: 02.02.2024).
- 5 Дондик Г. П. Особливості процесу дослідження при проведенні комісійних та комплексних експертиз. *Ученые записки Таврического национального университета им. В. И. Вернадского. Серия «Юридические науки»*. 2013. Т. 26 (65). № 2—2. С. 382—388. URL: https://juris.vernadskyjournals.in.ua/journals/2013/2-2_2013/55.pdf (date accessed: 02.02.2024).
- 6 Веретун Г. С. Особливості та відмінності понять «комплексна експертиза» та «комплекс експертиз». *Вісник ОНДІСЕ*. 2018. Вип. 3. С. 14—17. URL: http://ondise.od.ua/DOC/vipusk3/oso_blivostitavidminostiponyatkompleceexpertiza.pdf (date accessed: 02.02.2024).
- 7 Клименко Н. І. Поняття та завдання загальної теорії судової експертології в системі юридичних наук. *Криміналістика і судова експертиза*. 2019. Вип. 64. С. 48—57. URL: http://nbuv.gov.ua/UJRN/krise_2019_64_6 (date accessed: 02.02.2024).
- 8 Костицький М. В., Луцький М. І. Судово-психологічна експертиза в адміністративному процесі : монографія. Івано-Франківськ, 2011. 307 с.
- 9 Джужа О. М., Василевич В. В., Черней В. В., Чернявський С. С. та ін. Кримінологія : підручник / за заг. ред. В. В. Чернея ; за наук. ред. О. М. Джужі. Київ, 2020. 612 с. URL: https://vo.uu.edu.ua/pluginfile.php/520868/mod_resource/content/3/2020_%D0%9F%D1%96%D0%B4%D1%80%D1%83%D1%87%D0%BD%D0%B8%D0%BA_%D0%9A%D1%80%D0%B8%D0%BC%D1%96%D0%BD%D0%BE%D0%BB%D0%BE%D0%B3%D1%96%D1%8F.pdf (date accessed: 02.02.2024).

N. Loboda and O. Chabaniuk¹⁰, M. Sehai¹¹, E. Simakova-Yefremian¹², V. Sliusarenko¹³, M. Shcherbakovskiy¹⁴, V. Yurchyshyn¹⁵, etc.) have studied the issue of scientific and methodological support as one of the leading principles for the functioning of forensic institutions in Ukraine in their research papers.

V. Bondar¹⁶ highlights the potential of information-analytical support for forensic activities during the pre-trial investigation of terrorism-related crimes, suggesting a series of organizational, legal, and methodological measures aimed at enhancing the information-analytical support for investigating crimes of this nature.

H. Veretun¹⁷ analyzes forensic expert practice from the standpoint of investigating criminal offenses and the possibilities of conducting forensic examinations simultaneously by a few experts (expert committee), depending on the questions

they are addressing and the quantity and characteristics of the objects under study. It is emphasized that the committee may comprise forensic experts from the same field (a forensic examination is considered penal in this case) or from different areas of expertise (various directions within the same field): this kind of examination is multidisciplinary.

O. Bondarenko¹⁸ believes that multidisciplinary examination needs to be distinguished from the examination of complex objects, which is also conducted by a few experts of the same specialty, and from a set of interrelated examinations of the same objects. Research multidisciplinaryity also stems from the so-called synthetic examination, during which one of the forensic experts (who is the most well-versed in the field of methodology and techniques of forensic examination) can synthesize conclusions drawn by other forensic experts.

-
- 10 Чабанюк О. М., Лобода Н. О. Комплексна судова експертиза та особливості її проведення. *Сучасні проблеми екології* : тези XVIII Всеукр. наук. on-line конф. здобув. вищ. освіти і молод. учен. з міжнар. участю (Житомир, 06.10.2022). С. 37. URL: <https://conf.ztu.edu.ua/wp-content/uploads/2022/11/37.pdf> (date accessed: 02.02.2024).
 - 11 Сегай М. Я., Надгортний Г. М., Ісакович Б. М. Пропозиції з питань удосконалення регламентації судової експертизи в проектах процесуальних кодексів України. *Вісник Академії правових наук України*. 1999. № 2 (17). С. 124–133.
 - 12 Сімакова-Єфремян Е. Б. Сутність суб'єкта інтеграції знань при проведенні комплексних судово-експертних досліджень. *Теорія та практика судової експертизи і криміналістики*. 2006. Вип. 6. С. 108–117.
 - 13 Слюсаренко В. Є. Економічна експертиза. Теорія і практика в Україні. *Експерт: парадигми юридичних наук і державного управління*. 2020. № 3 (9). С. 101–107. DOI: [10.32689/2617-9660-2020-3\(9\)-101-107](https://doi.org/10.32689/2617-9660-2020-3(9)-101-107) (date accessed: 02.02.2024).
 - 14 Щербаківський М. Г. Проведення та використання судових експертиз у кримінальному провадженні : монографія. Харків, 2015. 560 с. URL: <https://dspace.univd.edu.ua/server/api/core/bitstreams/0dd2821b-1646-4d5c-965f-c20e08dc1479/content> (date accessed: 06.02.2024).
 - 15 Юрчишин В. Д. *Op. cit.* URL: http://www.pjv.nuoua.od.ua/v1_2013/42.pdf (date accessed: 02.02.2024).
 - 16 Бондар В. С. *Op. cit.* URL: http://nbuv.gov.ua/UJRN/krise_2017_62_34 (date accessed: 02.02.2024).
 - 17 Веретун Г. С. *Op. cit.* URL: <http://ondise.od.ua/DOC/vipusk3/osoblivostitavidminostiponyatkomplecexpertiza.pdf> (date accessed: 02.02.2024).
 - 18 Бондаренко О. О. *Op. cit.* URL: <https://univd.edu.ua/science-issue/issue/749> (date accessed: 02.02.2024).

H. Dondyk ¹⁹ delves into research process peculiarities during the conduct of penal and forensic multidisciplinary examinations.

While exploring the issues of multidisciplinary forensic examination in trial, N. Klymenko ²⁰, N. Loboda, and O. Chabaniuk ²¹ determine the stages of preparation, conduct, and implementation of such a forensic examination.

O. Kerevych ²² places an emphasis on the legislative and practical peculiarities of appointing forensic examinations to determine individual psychological traits of a suspect (defendant) in a criminal proceeding and stresses the need to legislatively regulate certain provisions regarding the procedure for appointing forensic examinations of this kind in order to safeguard the rights and lawful interests of persons with mental disabilities.

O. Lytvynov ²³ studies the criminology issue from the perspective of cybersecurity, particularly during the conduct of multidisciplinary and penal forensic examinations.

Y. O. Shulga ²⁴ sheds light on the peculiarities of engaging a forensic expert at the initial stage of investigating brigandism.

V. Yurchyshyn ²⁵, in research papers dedicated to the analysis and classification of expert conclusions in a criminal proceeding, views theoretical and practical aspects of using multidisciplinary examination findings as a means of proof.

At the same time, the above authors have failed to address the distinctions between conducting multidisciplinary forensic-economic examinations requiring specialists in the field of economic knowledge, and other sets of forensic examinations, as well as scientific-methodological guidelines that would outline peculiarities of expert tasks under martial law.

Main Content Presentation

Forensic examination utilizes modern advancements from various fields of science and technology; thus, its

19 Дондик Г. П. О. р. cit. URL: https://juris.vernadskyjournals.in.ua/journals/2013/2-2_2013/55.pdf (date accessed: 02.02.2024).

20 Клименко Н. І. О. р. cit. URL: http://nbuv.gov.ua/UJRN/krise_2019_64_6 (date accessed: 02.02.2024).

21 Чабанюк О. М., Лобода Н. О. О. р. cit. URL: <https://conf.ztu.edu.ua/wp-content/uploads/2022/11/37.pdf> (date accessed: 02.02.2024).

22 Керевич О. В. Особливості призначення судових експертиз для встановлення індивідуально-психологічних особливостей підозрюваного (обвинувачуваного). *Вісник кримінального судочинства*. 2015. № 2. С. 31–36. URL: https://vkslaw.knu.ua/images/verstka/2_2015_Kerevuch.pdf (date accessed: 02.02.2024).

23 Джу́жа О. М., Васи́левич В. В., Черней В. В., Чернявський С. С. та ін. О. р. cit. URL: https://vo.uu.edu.ua/pluginfile.php/520868/mod_resource/content/3/2020_%D0%9F%D1%96%D0%B4%D1%80%D1%83%D1%87%D0%BD%D0%B8%D0%BA_%D0%9A%D1%80%D0%B8%D0%BC%D1%96%D0%BD%D0%BE%D0%BB%D0%BE%D0%B3%D1%96%D1%8F.pdf (date accessed: 02.02.2024).

24 Шульга Ю. О. Особливості залучення експерта на початковому етапі розслідування розбоїв, вчинених із проникненням у житло. *Науковий вісник Ужгородського національного університету. Серія: Право*. 2018. Вип. 53. Т. 2. С. 96–100. URL: <https://dspace.uzhnu.edu.ua/jspui/handle/lib/30686> (date accessed: 02.02.2024).

25 Юрчишин В. Д. О. р. cit. URL: http://www.pjv.nuoua.od.ua/v1_2013/42.pdf (date accessed: 02.02.2024).

nature is comprehensive and inclusive, incorporating a wide range of specific expertise used.

Multidisciplinary examination reflects the tendency of theory and practice towards integrating specific expertise into practical application for addressing urgent tasks of pre-trial investigation and a court proceeding.

Integration of knowledge from experts in various fields opens up new prospects for the development of forensic examination, while the needs of judicial practice increasingly require solutions to issues that lie at the intersection of different disciplines. A multidisciplinary approach allows for the creation of a more complete and adequate picture of the object under study compared to separate subject-based approaches, which is a defining indicator of scientific research efficiency ²⁶. Moreover, as practice demonstrates, employing a set of methods and technical tools to solve tasks proves more efficient, leading to

the emergence of new fields of scientific knowledge that unveil patterns of practical significance and foster interdisciplinary links. Therefore, thoroughness of a studied phenomenon is realized through applying a multidisciplinary approach. Forms of interaction between forensic experts are closely related to the procedures for solving specific examination tasks, requiring the development of basic cooperation principles among these specialists. Adequate level of cooperation can only be ensured through organized, professional communication between forensic experts ²⁷.

Comparative analysis of the norms of the Instructions on the Appointment and Conduct of Forensic Examinations and Expert Studies (hereinafter referred to as *the Instructions* ²⁸), governing the conduct of forensic multidisciplinary examinations and sets of forensic examinations, taking into account other types of forensic examinations, is provided in the Table.

Comparing the application scope of forensic multidisciplinary examination and examination considering other types of forensic examinations

Forensic multidisciplinary examination	Forensic examination considering other types of forensic examinations
Paragraph 6, subclause 1.2.14, clause 1.2, Section I: “Forensic examination is considered multidisciplinary when performed using specific expertise from various fields of science, technology, or other specific expertise (different directions within the same field of knowledge) to address a common (integration) task (or issue). If necessary, forensic experts from forensic science institutions,	Paragraph 4.2 of Section IV: “4.2. If one document on the appointment of a forensic examination (involvement of a forensic expert) contains issues associated with various types of unrelated forensic examinations, the Institution head determines which issues should be addressed in the respective subdivision and the sequence of their resolution. Paragraph 11 of clause 4.12 of Section IV:

26 Капустник К., Хомутенко О., Кіпоурас П. Щодо вдосконалення науково-методичної бази проведення судово-економічних експертиз із урахуванням інших видів експертиз (оглядова стаття). *Теорія та практика судової експертизи і криміналістики*. 2022. Вип. 4 (29). С. 160—169. DOI: [10.32353/khrife.4.2022.09](https://doi.org/10.32353/khrife.4.2022.09) (date accessed: 02.02.2024).

27 Сімакова-Єфремян Е. Б. Сутність суб'єкта ...

28 Інструкція про призначення та проведення судових експертиз та експертних досліджень : затв. наказ. Мін'юсту України від 08.10.1998 р. № 53/5 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/z0705-98#Text> (date accessed: 02.02.2024).

Forensic multidisciplinary examination	Forensic examination considering other types of forensic examinations
as well as specialists from institutions and services (departments) of other central executive bodies, or other experts not employed in state specialized expert institutions, may be involved in conducting such examinations” ²⁹	“4.12. <...> The expert conclusion introduction section outlines the following: <...> <...> If certain questions specified in the document on the appointment of a forensic examination (engagement of a forensic expert) were addressed during the conduct of other types of forensic examinations, relevant information (such as the expert institution, number, and date of a conclusion) about these forensic examinations is provided. If the questions posed for a forensic examination are considered more appropriate to be addressed in a different order than that specified in the document on the appointment of a forensic examination (involvement of a forensic expert), the sequence in which these questions will be addressed is specified”³⁰.

As Table shows, various clauses of the Instructions govern the conduct of forensic multidisciplinary examinations and forensic examinations involving the use of findings obtained from other types of forensic examinations (sets of examinations).

The distinction in conducting forensic examinations utilizing results from other types of forensic examinations lies in the unique expertise used to formulate a conclusion. At the same time, conclusions of forensic experts specialized in other areas serve as source data. Without analyzing and assessing these data, a forensic expert conducting an examination cannot effectively solve a task.

This provision is supported by forensic expert practice confirming the complexity encountered by forensic experts in resolving tasks assigned to them within the framework of conducting forensic multidisciplinary examinations.

This complexity can be attributed to various factors (including the term for conducting each type of research, the influence of conclusions from one study on the advisability of conducting others, and the expansion of specialists’ expertise across different specialties to fully clarify circumstances of a case, which are the subject of pre-trial investigation or trial).

Hence, conducting different types of examinations sequentially while resolving multidisciplinary tasks can optimize the administration of justice process in some cases.

1st example. During the calculation of the deviation of products’ purchase price from their market price in conditions of non-compliance with the tender procedure, the commodity examination determined that the purchase price equals or is lower than the average market price. In this case, appointing a forensic economic examination taking into account the

29 Інструкція URL: <https://zakon.rada.gov.ua/laws/show/z0705-98#Text> (date accessed: 02.02.2024).

30 Op. cit.

conclusion of a commodity examination to determine the total deviation paid for the entire batch of supplies makes no sense, as it saves time for the procedural decision-making by the investigator ³¹.

2nd example. While the examination of equipment, machines and mechanisms by a forensic expert for the purpose of determining their value, it is expedient to conduct a multidisciplinary forensic examination with the participation of a commodity expert certified in expert specialty 10.23 "Examination of technical condition and operating conditions of machines and mechanisms" ³². The determined actual condition of pieces of other equipment parts and defects will be used by the expert in commodity research for further investigations aimed at calculating wear coefficient.

3rd example. During research on the market value of jewelry with gemstones, multidisciplinary research is conducted with experts in metallurgy and gemology. Examining metals, alloys, and products made from them, the metallurgist determines from which metal (or alloy) the object under study is made. Examination of stones and their value is carried out by a gemology expert. Using the obtained data, the market value of the jewelry is determined, and conclusions are developed relying on metallurgical and gemological research findings.

4th example. Examination of alcohol-containing mixtures is performed by an expert in commodity research and an expert qualified in 8.7 "Examination of alcohol-

containing mixtures" ³³ in combination with other examinations, addressing questions such as: "Does the alcoholic beverage in a specific bottle match the characteristics of the beverage indicated on the label?" and "Does this liquid belong to strong alcoholic beverages?". Based on the findings, the expert in commodity research conducts research and answers the question: "What characteristics does the product correspond to according to Ukrainian Classification of Goods for Foreign Economic Activity?", while the conclusion is formulated by the expert committee.

5th example. In the course of research on damages caused by deforestation, a forensic economist utilizes a set of conclusions from environmental and commodity examinations as source data.

6th example. Examination of unjustified acquisition of cash funds by a forensic economist is conducted taking into account handwriting analysis results.

7th example. When calculating damages (lost profits) resulting from the destruction of real estate due to artillery shelling or bombing, a forensic economist uses conclusions obtained as a result of ballistic, construction, and commodity examinations.

8th example. The forensic economist calculates unpaid taxes arising from illegal border crossings using conclusions from commodity examinations.

The main feature of multidisciplinary forensic examination is resolving related issues across different competencies, which cannot be resolved using only one

31 Капустник К., Хомутенко О., Кіпоурас П. Оп. cit. DOI: 10.32353/khrife.4.2022.09 (date accessed: 02.02.2024).

32 Перелік видів судових експертиз та експертних спеціальностей, за якими присвоюється кваліфікація судового експерта фахівцям науково-дослідних установ судових експертиз Міністерства юстиції України : дод. 5 до Положення про Центральну експертно-кваліфікаційну комісію при Міністерстві юстиції України та атестацію судових експертів, затв. наказ. Мін'юсту України від 03.03.2015 р. № 301/5 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/z0249-15#Text> (date accessed: 02.02.2024).

33 Ibid.

area of specific expertise. The procedure for conducting research, as well as specifying the sequence and terms for individual studies, is determined during a meeting organized by the head of the expert institution for all committee-involved experts, taking into consideration the functions of each. Findings are also collectively evaluated.

If questions related to different types of forensic examinations concerning the same objects are addressed by forensic experts of various specialties without collaborative research and evaluation of findings, such examination can be considered a set of forensic examinations³⁴. In this case, it is crucial to consider the sequence of actions of experts from different fields when researching a shared object, the types and sequence of research methods applied, while ensuring adherence to preservation and handling rules for objects.

The expert committee joint conclusion is signed by forensic experts who *“participated in overall evaluation of results obtained from all studies and reached an agreement”* (clauses 4.5 and 4.9 of Section IV of the Instructions)³⁵. If an agreement between them has not been reached, then several expert conclusions (corresponding to the number of different positions) are drawn up, or one opinion is compiled, in which the introduction and research sections are signed by all experts, while the conclusion section is signed only by those presenting their own findings from their conducted research. The results of such examination are utilized by a customer who engaged experts, as well as other entities who received the expert conclusion.

At the same time, multidisciplinary forensic examination is highly efficient

and offers ample opportunities for the collective and synthesized application of knowledge from various fields of science and technology during the resolution of tasks addressed to forensic experts. Conclusions obtained as a result of such examination comprehensively influence the decision-making of the entities resolving disputes. During multidisciplinary examinations, specialists from different fields of knowledge study the phenomenon considering only their own area of expertise in accordance with procedural law and reach a joint decision (or express a particular opinion based on specific expertise in their field).

Therefore, conducting a multidisciplinary forensic examination to answer the posed question requires synthesis of various fields of knowledge considering different data about the research subject and enabling resolution of the issue as quickly as possible.

When examining and comparing sets of forensic examinations with other types of multidisciplinary examinations, it is worth noting that criminal procedural legislation does not directly define the *multidisciplinary* concept. Conducting a multidisciplinary forensic examination in compliance with clause 3.7 of Chapter III of the Instructions³⁶ is ensured by the institution(s) to which the procedural document regarding its appointment has been submitted. During forensic examinations, while considering the conclusions of other examinations (a set of forensic examinations), the synthesis of knowledge from different fields occurs when the expert utilizes the results of research conducted by forensic experts from other field(s) of knowledge. This

34 Сімакова-Єфремян Е. Б. Сутність суб'єкта ...

35 Інструкція URL: <https://zakon.rada.gov.ua/laws/show/z0705-98#Text> (date accessed: 02.02.2024).

36 Ibid.

leads to a deeper understanding of the phenomenon that was the subject of controversy and was examined by various forensic experts.

When drafting a conclusion based on findings of forensic experts in other areas of expertise that reveal the essence of the studied phenomenon, the forensic expert utilizes them and simultaneously applies his/her specific expertise, which is one of the differences in conducting a forensic examination of this kind.

Hence, the conclusion of a multidisciplinary forensic examination and conclusions of other forensic examinations, which are considered during its preparation, are components of a holistic system of the studied phenomenon necessary for the court (investigation) to understand the phenomenon regarding which an objective decision on the merits needs to be made. Multidisciplinary examinations provide a comprehensive cause-and-effect understanding of the object under study. In expert conclusions based on the results of individual types of forensic examinations, one component is determined by factual data, requiring specific expertise in one field, while the other component necessitates knowledge in another field, along with additional explanations.

Considering the conclusions of other types of forensic examinations by forensic experts is a means of broadening the background information concerning specific objects of study or circumstances of a case. This is particularly useful when the data are partially or completely absent in the objects submitted for examination, and when utilization of such information in the forensic examination process is only feasible after it has been processed by forensic experts in other specialties.

Practice of conducting these kinds of forensic examinations requires the development of a preliminary set of questions that can be addressed by forensic experts, specifying the conclusions of which forensic examinations in other areas of expertise may (or must) be provided as source data and taken into account when formulating conclusions. Therefore, it is necessary to classify sets of forensic examinations. This will positively impact the activities of forensic science institutions, streamline the terms for conducting forensic examinations, and contribute to obtaining objective and unbiased conclusions³⁷.

Customers, when appointing multidisciplinary or additional types of forensic examinations that involve other types of examinations, ought to have a clear understanding of the tasks that can be addressed during such examinations. They should also consider that conducting individual types of forensic examinations with utilization of other examination types requires more time.

During the state of war, there has been an increased relevance of forensic multidisciplinary examinations involving economists. They can be categorized into types and subtypes, as outlined below.

Economic. Subtypes: sets of forensic economic examinations considering the conclusions of previously conducted forensic examinations of accounting and tax accounting, financial and economic activities, and financial and credit transactions (that is, taking into account conclusions of other forensic economic examinations). The need for such sets arises from the fact that forensic experts use conclusions from other forensic examinations as source data without re-examining objects (if it is needed to expand the conducted research due to

37 Капустник К., Хомутенко О., Кіпоурас П. Оп. cit. DOI: 10.32353/khrife.4.2022.09 (date accessed: 02.02.2024).

the lack of already studied objects or time for their re-processing).

Economic-criminalistics. Subtypes: sets of forensic economic examinations taking into account conclusions of handwriting analysis; linguistic examination of speech; questioned document examination; examination of weapons and traces and circumstances of their use; trace evidence analysis (except for the examination of traces of damage to clothing with simultaneous infliction of bodily injury conducted in forensic medical examination bureaus); examination of hologram, video and audio recording; explosive engineering; examination of man-made explosions; examination of materials, substances, and products (paint and varnish materials and coatings; polymeric materials; fibrous materials; petroleum products and lubricants; glass, ceramics; narcotic substances, psychotropic substances, their analogs, and precursors; alcohol-containing mixtures; soils; metals and alloys and products made from them; pesticides presence in the environment; chemical production substances and special chemical substances; food products; highly potent and poisonous substances); biological examination.

Economic-handwriting. Subtypes: sets of forensic economic examinations that incorporate conclusions from handwriting analysis conducted on original documents found in accounting records, contracts, financial statements, and tax reports.

Economic-commodity. Subtypes: sets of forensic economic examinations taking into account the conclusions from commodity examinations of machinery, equipment, raw materials, and consumer goods; transportation-commodity examination; valuation of military assets and equipment and weaponry; aviation-technical examination, etc.

Economic and Intellectual Property. Subtypes: sets of forensic economic examina-

tions incorporating conclusions from forensic examinations of literary and artistic works; investigations associated with phonograms, videograms, phonograms, shows (broadcasts) of broadcasting organizations; examinations of inventions and utility models; investigations related to industrial designs; examination of plant varieties and animal breeds; examination of commercial (corporate) names, trademarks (marks for goods and services), geographical indications; examination of integrated circuit layout; examination of commercial secrets (know-how) and innovative proposals; economic examination in the field of intellectual property.

Economic-construction-commodity. Subtypes: sets of forensic economic examinations taking into account conclusions from commodity examination of buildings, structures, and infrastructure facilities.

Economic-engineering-technical. Subtypes: sets of forensic economic examinations considering conclusions of transportation-engineering examination (engineer vehicular investigation, vehicle and trace studies, rail transport examination); road-technical examination; construction and engineering examination; estimate examination in construction; land and technical examination; land evaluation examination; expert examination of land management issues; fire and technical examination; life safety examination; mining engineering examination; environmental and engineering examination; electrical engineering expert examination; computer examination; water engineering examination.

The classification of forensic examination sets undergoes changes over time; its updating is primarily due to the need to address new tasks concerning objects that have not been previously studied. That is why the proposed classification may be transformed in the future, considering new expert knowledge and tasks.

Conclusions

Conducting a forensic multidisciplinary examination is regulated at the level of subordinate instruments and by-laws; its value lies in the ability to study phenomena and obtain full justification in conditions of collective work of experts in various fields of knowledge. This, in turn, will provide the entity appointing a forensic examination with greater confidence in reaching an objective decision during the process of pre-trial investigation and trial.

Performing a forensic examination using knowledge from various fields enables a forensic expert to apply it in addressing the essence of the question posed to him/her. Multidisciplinary examinations are conducted much faster than sets of forensic examinations which significantly impacts the speed of investigation and trial, a critical factor in today's context.

Therefore, enhancing the methodology for conducting forensic multidisciplinary examinations and sets of forensic examinations to address complex issues arising in connection with the military situation will further facilitate the development of unified approaches to resolving challenging aspects of such research.

Проведення комплексних і комплексів судових експертиз із використанням спеціальних знань у галузі економіки

**Вікторія Слюсаренко,
Олексій Хомутенко,
Світлана Тарасютина**

Якість проведення експертизи залежить від кваліфікації судового експерта й докладного та відповідального дослідження ним об'єктів, дослідити які виникла потреба в процесі досудового слідства або суду. Сьогодні експертні методики з пи-

тань проведення комплексних судово-економічних експертиз і комплексу експертиз потребують удосконалення, зважаючи на умови воєнного часу. Комплексна експертиза відображає сучасні теоретичні тенденції щодо інтеграції норм законодавства в прикладну складову для виконання загальних завдань у судовому слідстві та судочинстві. Найефективнішим у цьому контексті є використання комплексу методів і технічних засобів, завдяки яким формуються нові галузі наукового знання, що обумовлюють закономірності їх практичного значення, а також утворюються міжгалузеві та міждисциплінарні зв'язки. Водночас комплексна експертиза має високу ефективність і широкі можливості сукупного, синтезованого застосування знань із різних галузей наук та технічних засобів під час розв'язання завдань, поставлених перед експертом. Почергове проведення експертиз різних видів під час розв'язання комплексних завдань у деяких випадках забезпечує достовірність експертних висновків та оптимізує процес правосуддя. Висновки комплексної експертизи мають різнобічний вплив на ухвалення рішень суб'єктами, які вирішують суперечку. Тому вдосконалення методики проведення комплексних або комплексу судових експертиз під час розв'язання складних питань, що часто виникають в умовах дії військового стану, є актуальним, даючи змогу визначати єдині підходи до розв'язання проблемних аспектів такого дослідження.

Ключові слова: комплексна судова експертиза; комплекси судових експертиз.

Financing

This research did not receive any specific grant from funding institutions in the public, commercial or non-commercial sectors.

Disclaimer

Founders had no role in the study design, data collection and analysis, decision to publish, or manuscript preparation.

Participants

Authors contributed solely to the intellectual discussion underlying this document, case law research, writing and editing and assumes responsibility for its content and interpretation.

Declaration of Competing Interest

Authors declare no conflict of interest.

References

- Bondar, V. S. (2017). Informatsiino-analitychne zabezpechennia provedennia sudovobalistychnykh ekspertyz [Information and analytical support for forensic ballistic examination]. *Kryminalistyka i sudova ekspertyza*. Vyp. 62. URL: http://nbuv.gov.ua/UJRN/krise_2017_62_34 [in Ukrainian].
- Bondarenko, O. O. (2012). Klasyfikatsiia sudovykh ekspertyz u kryminalnomu sudochynstvi [Classification of forensic examinations in a criminal proceeding]. *Visnyk Kharkivskoho natsionalnoho universytetu imeni V. N. Karazina. Seriya «Pravo»*. № 1028 (12). URL: <https://univd.edu.ua/science-issue/issue/749> [in Ukrainian].
- Chabaniuk, O. M., Loboda, N. O. (2022). Kompleksna sudova ekspertyza ta osoblyvosti yii provedennia [Multidisciplinary forensic examination and peculiarities of its conduct]. *Suchasni problemy ekolohii : tezy KhVIII Vseukr. nauk. on-line konf. zdobuv. vyshch. osvity i molod. uchen. z mizhnar. uchastiu* (Zhytomyr, 06.10.2022). URL: <https://conf.ztu.edu.ua/wp-content/uploads/2022/11/37.pdf> [in Ukrainian].
- Dondyk, H. P. (2013). Osoblyvosti protsesu doslidzhennia pry provedenni komisiinykh ta kompleksnykh ekspertyz [Features of research process in conducting commission and comprehensive forensic examinations]. *Uchenye zapiski Tavricheskogo nacionalnogo universiteta im. V. I. Vernadskogo. Seriya «Yuridicheskie nauki»*. T. 26 (65). № 2—2. URL: https://juris.vernadskyjournals.in.ua/journals/2013/2-2_2013/55.pdf [in Ukrainian].
- Dzhuzha, O. M., Vasylevych, V. V., Cherniei, V. V., Cherniavskiy, S. S. ta in. (2020). Kryminolohiia [Criminology] : pidruchnyk / za zah. red. V. V. Chernieia ; za nauk. red. O. M. Dzhuzhi. Kyiv. URL: https://vo.uu.edu.ua/pluginfile.php/520868/mod_resource/content/3/2020_%D0%9F%D1%96%D0%B4%D1%80%D1%83%D1%87%D0%BD%D0%B8%D0%BA_%D0%9A%D1%80%D0%B8%D0%BC%D1%96%D0%BD%D0%BE%D0%BB%D0%BE%D0%B3%D1%96%D1%8F.pdf [in Ukrainian].
- Kapustnik, K., Khomutenko, O., Kipouras, P. (2022). On Improvement of Scientific and Methodological Basis for Conducting Forensic Economic Examinations Considering Other Types of Forensic Examinations (review article). *Theory and Practice of Forensic Science and Criminalistics*. Issue 4 (29). P. 160—169. DOI: 10.32353/khrife.4.2022.06.
- Kerevych, O. V. (2015). Osoblyvosti pryznachennia sudovykh ekspertyz dlia vstanovlennia individualno-psychologichnykh osoblyvostei pidozriuvanoho (obvynuvachuvanoho) [Features purpose of forensic examination to establish individual psychological characteristics of the suspect (accused)]. *Visnyk kryminalnogo sudochynstva*. № 2. URL: https://vkslaw.knu.ua/images/verstka/2_2015_Kerevuch.pdf [in Ukrainian].
- Klymenko, N. I. (2019). Poniattia ta zavdannia zahalnoi teorii sudovoi ekspertolohii v systemi yurydychnykh nauk [Theory of forensic expertology in the system of law]. *Kryminalistyka i sudova ekspertyza*. Vyp. 64. URL: http://nbuv.gov.ua/UJRN/krise_2019_64_6 [in Ukrainian].
- Kostytskiy, M. V., Lutskiy, M. I. (2011). Sudovopsykhologichna ekspertyza v administrativnomu protsesi [Forensic psychological examination in administrative process] : monohrafiia. Ivano-Frankivsk [in Ukrainian].
- Sehai, M. Ya., Nadjorny, H. M., Isakovych, B. M. (1999). Propozytzii z pytan udoskonalennia rehlamentatsii sudovoi ekspertyz v proektakh protsesualnykh kodeksiv Ukrainy [Proposals on the improvement of forensic examination regulation in Ukrainian draft procedural codes]. *Visnyk Akademii pravovykh nauk Ukrainy*. № 2 (17). [in Ukrainian].
- Shcherbakovskiy, M. H. (2015). *Provedennia ta vykorystannia sudovykh ekspertyz u kryminalnomu provadzhenni* [Conducting and utilizing forensic examinations in a criminal

- proceeding] : monohrafiia. Kharkiv. URL: <https://dspace.univd.edu.ua/server/api/core/bitstreams/0dd2821b-1646-4d5c-965f-c20e08dc1479/content> [in Ukrainian].
- Shulha, Yu. O. (2018). Osoblyvosti zaluchennia eksperta na pochatkovomu etapi rozsliduvannia rozboiu, vchynenykh iz pronyknenniam u zhytlo [Peculiarities of involving an expert at the initial stage of investigation of home-invasion robberies]. *Naukovyi visnyk Uzhhorodskoho natsionalnoho universytetu. Seriya: Pravo*. Vyp. 53. T. 2. URL: <https://dspace.uzhnu.edu.ua/jspui/handle/lib/30686> [in Ukrainian].
- Simakova-Yefremian, E. B. (2006). Sutnist subiekta intehtatsii znan pry provedenni kompleksnykh sudovo-ekspertnykh doslidzhen. *Teoriia ta praktyka sudovoi ekspertyzy i kryminalistyky*. Vyp. 6 [in Ukrainian].
- Simakova-Yefremian, E. B. (2017). Teoretyko-pravovi ta metodolohichni zasady kompleksnykh sudovo-ekspertnykh doslidzhen [Theoretical-legal and methodological foundations of complex forensic research] : avtoref. dys. ... d-ra yuryd. nauk. Kharkiv. URL: <https://dspace.nlu.edu.ua/jspui/handle/123456789/13451> [in Ukrainian].
- Sliusarenko, V. Ye. (2020). Ekonomichna ekspertyza. Teoriia i praktyka v Ukraini [Economic examination. Theory and practice in Ukraine]. *Ekspert: paradyhmy yurydychnykh nauk i derzhavnoho upravlinnia*. № 3 (9). DOI: [10.32689/2617-9660-2020-3\(9\)-101-107](https://doi.org/10.32689/2617-9660-2020-3(9)-101-107) [in Ukrainian].
- Smyrnyi, M. F. (2018). Osnovy naukovykh doslidzhen [Scientific Research Fundamentals] : konspekt lektsii (dlia student. usikh form navch. za spets. 141 — Elektroenerh., elektrotekh. ta elektromekh.). Kharkiv. URL: <https://core.ac.uk/download/pdf/162019668.pdf> [in Ukrainian].
- Veretun, H. S. (2018). Osoblyvosti ta vidminnosti poniat «kompleksna ekspertyza» ta «kompleks ekspertyz» [Features and distinctions of concepts «complex expertise» and «expertises complex»]. *Visnyk ONDISE*. Vyp. 3. URL: <http://ondise.od.ua/DOC/vipusk3/osoblivostitavidminostiponyatkomplecexpertiza.pdf> [in Ukrainian].
- Slyusarenko, V., Khomutenko, O., Tarasyutina, S. (2024). Conducting Forensic Multidisciplinary Examinations and Sets of Forensic Examinations Using Specific Expertise in Economics. *Theory and Practice of Forensic Science and Criminalistics*. Issue 1 (34). Pp. 209–222. DOI: [10.32353/khrife.1.2024.12](https://doi.org/10.32353/khrife.1.2024.12).