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Article

Specialized Forensic Techniques in Investigating Stock Market Crimes

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Abstract

This study draws on investigative practice and expert-methodological analyses to derive practically significant conclusions. It underscores that the use of specialized knowledge – encompassing expert consultation, departmental inspections, specialist participation in investigative actions, and the initiation and conduct of forensic examinations – constitutes a crucial instrument for enhancing the efficiency and effectiveness of investigations into crimes affecting stock market activities. The findings indicate that results from departmental inspections (audits, monitoring, financial audits, etc.) and consultations with securities-market specialists (primarily economists), both in general and in the course of specific investigative actions, support the assignment of appropriate examinations, ensure the collection of procedurally sound evidence, and reduce the likelihood of errors. The study identifies typical examination types employed in the analyzed proceedings: economic, handwriting, technical examination of documents, telecommunications, and computer-technical analyses. It substantiates the feasibility of expanding handwriting-experts' competencies to include the specialty "Research of Document Details," enabling a single expert to comprehensively examine complex objects – such as short-handwritten notes produced by technical means – within one examination. Furthermore, the analysis identifies common shortcomings in the use of specialized knowledge within the examined proceedings and proposes measures to strengthen the skills of pre-trial investigation bodies and to improve their interaction with expert institutions.

Keywords: *Investigation, Stock Markets, Special Knowledge, Forensic Science, Handwriting Research*

Introduction

The investigation of stock market crimes in Ukraine operates within a complex regulatory and financial framework. Offenses such as market manipulation, forgery of securities documents, manufacture and use of counterfeit securities, and insider information-related violations combine financial, technical, and informational dimensions. Investigations in this domain require interdisciplinary inputs, real-time interpretation of market data, and the ability to trace both digital and paper-based trails across corporate registries, trading platforms, and supervisory documents. The central premise is that specialized knowledge acts as a force multiplier: it informs evidence collection, sharpens investigative questions, and improves the quality and admissibility of expert conclusions.

The Criminal Code of Ukraine defines illegal acts related to violations in the field of ensuring the activities of the stock market: Art. 222-1 (Manipulation on organized markets), Art. 223-1 (Forgery of documents submitted for registration of the issue of securities), Art. 224 (Manufacturing, sale and use of counterfeit securities), Art. 232-1 (Illegal use of insider information), Art. 232 2 (Concealing information about the activities of the issuer) (Criminal Code of Ukraine, 2001). During the investigation of such criminal offenses, situations often arise in which the investigator, to perform the tasks assigned to him is extremely necessary to obtain information of an evidentiary or at least indicative nature, which will allow determining further effective directions of the investigation and will help to make sound procedural decisions. Obtaining the specified information in many investigative situations is impossible without the use of special knowledge.

During the pre-trial investigation of the above-mentioned criminal offenses, there is a need to involve specialists of various profiles (economists, handwriting experts, document experts, etc.) to prepare and conduct various investigative (detective) actions. This may include: studying laws and other (including departmental and interdepartmental) regulatory legal acts regulating the activities of business entities, their individual types; familiarizing yourself with the profile of the enterprise headed or in which the suspect works, its organizational structure by studying the constituent documents, charter; familiarizing yourself with the functional responsibilities of the suspect; drawing up a detailed interrogation plan with a record of questions to the suspect and evidence, regulatory acts, other information that can be used to obtain testimony. In addition, when deciding on the appointment of a forensic examination, the specialist may provide the investigator with advice on formulating questions for the expert. Such a typical form of using special knowledge, as conducting an examination, is also of great importance.

Investigations in stock market crimes demand more than standard criminal procedure. They require collaboration with economists, handwriting and document experts, and other specialists to prepare and conduct investigative actions. This includes studying relevant laws and regulatory acts, understanding the enterprise profile and organizational structure through constituent documents and charters, and analyzing the suspect’s functional responsibilities. When deciding on forensic examinations, specialists can advise on formulating precise questions for experts, illustrating the essential role of specialized knowledge in guiding the investigative process.

The purpose of the article is to clarify the features of the use of special knowledge in the investigation of criminal offenses in the field of ensuring the activities of the stock market and to develop scientifically substantiated proposals based on this, aimed at optimizing the activities of pre-trial investigation bodies, specialists, and experts. It is, therefore, expedient to clarify the features of using special knowledge in stock market investigations and to develop scientifically grounded proposals aimed at optimizing the activities of pre-trial investigation bodies, specialists, and experts. The discussion emphasizes that specialized knowledge improves evidentiary quality, supports sound procedural decisions, and enhances the overall efficiency and effectiveness of investigations into stock market offenses.

The Essence and Forms of Using Special Knowledge in the Criminal Process of Ukraine

Special knowledge is knowledge professionally acquired by a person in various spheres of life. Regarding the criminal procedural aspect, it is scientific, technical, and other special knowledge that is the basis (in relation to specialists) or one of the grounds (in relation to experts) for involving persons who possess it to provide consultations or conclusions during the investigation of a criminal offense (Kreminsky & Omelchuk, 2022). Special knowledge in criminal proceedings is used in various forms. Most scholars, inclined to classify according to procedural regulation, distinguish procedural and non-procedural, and some also mixed forms (Shramko, 2021; Kopcha, 2023). A similar division of special knowledge into those used in procedural and non-procedural forms is also applicable in the case of an investigation in the field of ensuring the activities of the stock market.

Procedural knowledge includes that special knowledge, the grounds and procedure for the use of which are established in the Criminal Procedure Code of Ukraine (hereinafter referred to as the CPC of Ukraine). Non-procedural activities are independent forms of actions that are not provided for in the CPC of Ukraine due to their insignificance for the investigation process. According to Part 1 of Article 71 of the CPC of Ukraine, during a pre-trial investigation, the investigator, if necessary, may receive consultations and conclusions on issues that require relevant special knowledge and skills from persons who possess relevant special knowledge and skills (Criminal Procedure Code of Ukraine, 2012).

The scientific community considers the improvement of the use of special knowledge in the investigation of criminal offenses as a priority in the near future, as a wide application of the non-procedural (consultative) form of their use (Volkova, 2022). Consulting consists in providing a person who possesses the relevant special knowledge with advice to the investigator on choosing the optimal course of action in the current situation (for example, the tactics of conducting procedural (search) actions in order to obtain evidentiary information), as well as providing information about phenomena, properties of objects, etc. that are of interest to the investigator, in relation to the sphere of activity in which the person possesses the relevant special knowledge. As a result of such use of special knowledge, the investigator receives only indicative information. The main procedural form of the use of special knowledge in criminal proceedings is an examination. The procedure for the appointment of examinations is regulated by Articles 242–245 of the CPC of Ukraine. According to Part 1 of Art. 242 of the CPC of Ukraine, an expert examination is conducted by an expert at the request of a party to criminal proceedings or by order of an investigating judge or court, if special knowledge is required to clarify circumstances that are important for criminal proceedings. An expert examination is not allowed to clarify issues of law (Criminal Procedure Code of Ukraine, 2012).

The result of the expert's research is formulated in the form of a conclusion, which, based on Part 2 of Article 84 of the CPC of Ukraine, is often the main evidence in the investigation of crimes related to virtual currencies. The expert's conclusion is a detailed description of the research conducted by the expert and the conclusions drawn based on their results, substantiated answers to questions posed by the person who engaged the expert, or by the investigating judge or court that ordered the examination (Criminal Procedure Code of Ukraine, 2012).

The difference between expert opinions and specialist opinions is that a specialist helps to identify, record facts, and remove objects, which in the vast majority of cases are available for perception and clarification precisely during the investigative (detective) action. When conducting an examination, an expert gives the seized objects and the information obtained from them evidentiary value, thereby simplifying the investigator's procedure for legal assessment of materials collected in criminal proceedings. Under such conditions, the main tasks of the investigator are only to search, record, remove with the help of a specialist, and provide the expert with the necessary material objects—information carriers, for conducting an examination. In our opinion, it should be emphasized that any expert is a specialist; based on this, the investigator may involve persons for conducting investigative (detective) actions who can assist him as a specialist in collecting material objects - information carriers, and subsequently act as experts—conducting an examination. The Code of Criminal Procedure of Ukraine grants the expert the right to be present during the performance of procedural actions relating to the subjects and objects of the investigation. However, the expert acquires the right to be present during the performance of procedural actions only after he is assigned to conduct the examination, that is, after the start of the expert investigation.

The study of criminal proceedings materials showed that the main forms of using special knowledge in the investigation of criminal offenses in the field of ensuring the activities of the stock market are: involving a specialist in conducting investigative (search) actions; providing consultations by a specialist; involving an expert; and conducting an examination.

Non-procedural and Procedural Forms of Using Special Knowledge Used During the Investigation of Criminal Offenses in the Field of Ensuring the Activities of the Stock Market

Non-procedural forms of using special knowledge

Investigation of criminal offenses in the field of ensuring the activities of the stock market requires conducting such investigative (search) actions as a search, inspection, interrogation, as well as measures to ensure criminal proceedings - temporary access to things and documents, during which it is advisable to involve a specialist. For example, already at the preparatory stage of the interrogation, the place and time of the interrogation are determined, the issue of the participation of an economist, a specialist in the field of document science, is resolved, and such organizational measures as preparing the workplace, appropriate technical means, etc., are carried out.

Under such conditions, it will be easier for the investigator to conduct an investigative (search) action, whether in a conflict situation or a non-conflict one. The assistance of a specialist is also important at the subsequent stages of procedural actions. Along with specialists in economic specialties, forensic specialists are involved (to record the course of procedural actions), document experts and handwriting experts (to select documents of importance), etc.

We consider it especially important to involve specialists in conducting temporary access to things and documents. Unlike such an investigative (detective) action as a search, during this event, the institution, institution or organization provides only those documents that are specified in the court's decision. The specialist can only evaluate them and orient the investigator promptly. After receiving the necessary things and documents, forensic examinations are assigned to give them the status of evidence.

When choosing a specialist, a number of circumstances should be taken into account regarding the possibility of their participation in criminal proceedings, because in judicial practice, there are frequent cases of recognition of evidence as inadmissible due to a violation of the procedure for involving a specialist. In turn, the institute of forensic examination of stock market abuses in the process of trading financial instruments and generally abuses on regulated markets must be provided with appropriate personnel who have undergone specialized training (as required by Directive 2014/57/EU); accreditation of a new specialization that takes into account the specifics of the field of knowledge; methods that take into account the need for mandatory application and use of an automated information analysis system prior to expert conclusions.

An audit is a method of documentary control over the financial and economic activities of an enterprise, institution, organization, compliance with legislation on financial issues, the reliability of accounting and reporting, a method of documentary exposure of deficiencies, waste, misappropriation and theft of funds and material assets, and the prevention of financial abuse (Law of Ukraine "On the Fundamentals of National Security of Ukraine" N 3200-IV, 2005). An audit is carried out on the basis of orders of state authorities.

Audit, as a type of independent financial and economic control, is a verification of accounting data and financial reporting indicators of a business entity to express an independent opinion of the auditor on its reliability in all material aspects and compliance with the requirements of the laws of Ukraine, accounting regulations (standards) or other rules (internal regulations of business entities) in accordance with the requirements of users. Audits are carried out by independent persons: auditors or audit firms on a paid contractual basis. The audit is carried out at the initiative of the business entity itself, except for cases of mandatory audit provided for by the legislation of Ukraine (Butynets et al., 2004).

Voluntary (initiative) audit is carried out at the request of an interested party, when the audit is not provided for in the established procedure. Conducting an initiative audit is usually associated with the desire of the owner or manager of the enterprise to check the reliability of financial reporting indicators, the calculation and payment of taxes and fees, the correctness of conducting business transactions, etc. (Dorosh, 2001).

In the context of the issue raised, we note that on February 16, 2024, the Procedure for organizing and conducting inspections in the field of professional activity in capital markets and organized commodity markets was determined. It establishes a unified mechanism for conducting on-site scheduled and unscheduled inspections of the activities of persons in the field of professional activity related to capital markets and organized commodity markets by the National Securities and Stock Market Commission.

The inspection is carried out with the aim of: clarifying the purpose and essence of the operations carried out by licensees, the Central Securities Depository; identifying and preventing the emergence of risks that may pose a threat to the security and stability of the activities of licensees, the Central Securities Depository, as well as the stability of the financial system of Ukraine; checking compliance by licensees, the Central Securities Depository with the rights of clients (depositors, consumers of financial services, investors, participants); checking compliance with the legislation by entities in the event of license cancellation, etc. (Decision of the National Securities and Stock Market Commission No. 189, 2024).

Based on the results of the inspection and the provision by the subject of inspection of all or part of the documents (information) available to the subject of inspection necessary for the inspection, the inspection group draws up an Inspection Report in two copies, which is signed by the head and members of the inspection group no later than the expiration date of the Inspection Order. According to the results of a planned inspection, inspection materials are added to the Inspection Report, which confirm the identified violations, signs of an offense, and shortcomings in the activities of the subject of the inspection (Decision of the National Securities and Stock Market Commission No. 189, 2024).

Therefore, we can state the great influence of the conclusions of inspection reports based on the results of the audit, as well as audits of financial and economic activities on the formation of the evidentiary base in criminal proceedings in the field of ensuring the activities of the stock market, since in most cases the results of the relevant inspections, which confirm the actual circumstances of the criminal offense, are confirmed by other evidence, such as the conclusions of economic examinations, testimonies of witnesses - auditors, cross-check certificates, materials that were the subjects of the inspection, etc.

Appointment and conduct of an examination as a procedural form of using special knowledge

As the analysis of investigative practice shows, a forensic economic examination is conducted during the investigation of criminal offenses in the field of ensuring the activities of the stock market. There is also often a need to conduct technical examinations of documents, handwriting, computer-technical, and other examinations. Let us analyze them in detail.

The importance and role of forensic economic examination are significantly increasing in the context of globalization of economic relations, which is explained by the increase in competition between business entities at different levels. This requires this type of forensic examination to constantly improve its methodological tools (Horlachuk, 2023).

It should be noted that the concept of economic examination, unlike other types of examinations, is not clearly defined in Ukrainian legislation, and in most cases, is understood as a type of forensic examination or as a type of audit activity. However, the concept of economic examination is broader and covers all types of

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economic activity. In this study, we will understand economic examination as a type of scientific examination, the purpose of which is to study, verify, analyze, and assess the state of economic activity of the object under study.

The essence of economic expertise is to study the financial, tax, and credit activities of enterprises and identify factors that, on the one hand, can contribute to the commission of abuses and concealment of their consequences, and on the other, act in the form of unused opportunities. Analyzing the essence of economic expertise, the question arises: why even consider economic expertise as a tool of economic control, if there are such types of state control as audit, tax control, and an independent type of control—audit. However, economic expertise differs from the above-mentioned types of research in terms of its purpose, objectives, customers, and users of research results.

Conducting a forensic economic examination of transactions with securities is characterized by taking into account aspects related to the complex specifics of these documents (issue, circulation, taxation of transactions under them) and their consideration as an independent object of research (Dikan et al., 2014, p. 59). Securities do not belong to accounting and reporting documents, but the degree of their study (in form and content) affects the results of expert research, as well as the level of disclosure of these crimes by law enforcement agencies (Horlachuk, 2020).

Economic violations that this type of forensic economic examination investigates on behalf of judicial investigative bodies can be conditionally divided into several groups: related to the issuance of securities; carried out in the sphere of their circulation; related to non-compliance with the rights of owners; and recorded in the sphere of accounting for rights to securities.

Using documentary verification methods, forensic economic examination investigates transactions in which there is a violation of legislation and regulatory requirements. The task of such an examination is to verify the circulation of securities, the correctness of the accrual of dividends, interest, and their payment. Therefore, the objects of forensic economic expertise are securities, which include stocks, bonds, savings certificates, and bills. In the process of investigating financial fraud on the stock market, investigative bodies must resolve the issue using special knowledge in the field of economic sciences that a forensic expert must possess - stock exchange activities (stock exchange), taxation, accounting (financial, tax), etc.

During the expert study, the fact that transactions with securities of an enterprise constitute a separate segment of its financial and economic activities (for example, the enterprise maintains separate accounting of financial results from transactions with securities) is taken into account, and therefore, in addition to the general regulatory framework of forensic economic expertise, the expert also studies the legislation in the field of issuance and circulation of securities in relation to criminal, civil, administrative, and economic legislation (Horlachuk, 2020).

Solving the tasks of this type of forensic economic examination is associated with taking into account important aspects that characterize the circulation of securities: from their emission (issue) to the payment of interest, dividends on them, and therefore require detailed study by the expert. Thus, the fact that the right to produce securities forms is the prerogative of state specialized enterprises is taken into account, which is determined by the order of the Ministry of Finance of Ukraine, the Security Service of Ukraine and the Ministry of Internal Affairs "On Approval of the Rules for the Production of Securities Forms and Strict Accounting Documents" dated 25.11.1993 No. 98/118/740. In addition, the specified enterprises must have a license to carry out such activities, which is issued by the Ministry of Finance of Ukraine. The activities of professional participants in the securities market are also subject to licensing (granting special permits) (On State Regulation of the Securities Market in Ukraine: Law of Ukraine, 1996; Order No. 98/118/740, 1993).

The expert checks whether the enterprise has a certificate of registration of the issue of shares, which certifies its right to issue securities and which, in the event of a positive decision by the registration authority, is provided to the business entity only after the registration of the issue of securities with the National Securities and Stock Market Commission.

The circulation of securities involves their accounting in the appropriate accounts, as well as the preparation of financial statements for this circulation (Bilukha, 2004, p. 44). For example, securities accounting is carried out on the off-balance sheet account 08 "Strict accounting forms", on sub-account 601 "Short-term bank loans in national currency" – accounting for funds raised from the placement of shares and bonds, as well as their repayment (redemption), on sub-account 441 "Retained earnings" – accounting for expenses when issuing securities (shares, bonds), accrued dividends on shares, account 33 "Other funds" is intended for accounting for savings certificates purchased from banks, etc. In the case of expert research, not only is the reflection of transactions with securities in accounting accounts checked, but also the correctness of the accrual of dividends and interest on them is determined.

Securities are an independent object of research, which involves checking their form and content for compliance with regulatory requirements. For example, in the process of studying a share certificate in order to prevent their falsification, the expert pays attention to the presence of mandatory details: the name of the security, the name of the joint-stock company, the series and number of the certificate, the international identification number, the type and class of shares, the nominal value of the shares, the number of shares owned by the owner according to the certificate, the name of the owner, the signature of the head of the issuer or another authorized person. According to the legislation, securities can be traded in both documentary and non-documentary form (for example, registered issue securities). Today, the circulation of electronic securities in Ukraine tends to increase, and therefore, in the process of conducting a forensic economic examination, it is relevant to use specially developed software products for their research. This will allow for reducing the time for conducting examinations, which will increase the productivity and quality of the work of the expert economist.

The result of conducting a forensic economic examination, based on the materials provided for the study, is the determination of the amount of material losses suffered by business entities of various forms of ownership and management, as well as individuals, as a result of economic violations in securities transactions by unscrupulous participants in the financial market. The results of the expert study can be used by joint-stock companies as preventive measures to prevent financial fraud with securities in this market.

One of the most common ways to commit criminal offenses in the field of ensuring the activities of the stock market is forgery of documents. Forgery of a document should be understood as both the complete production of a forged document and the partial falsification of the content of a genuine document. In the latter case, the information is changed by entering false information into the document (correction, making fictitious entries, destroying part of the text, etching, cleaning, washing off, forging a signature, re-gluing photographs, affixing a forged seal to the document, etc.). In some cases, the production of a forged document will require the presence of a special form, without which the desired result may not be achieved. In this case, forgery is implemented by entering invalid information into a genuine form. This involves the following types of actions: production of a forged document, form, stamp, or seal (complete forgery); unlawful alteration of a genuine document, form, stamp, or seal (partial forgery) (Parasyuk, 2015; Volyets, 2018). Judicial practice adheres to a similar position. It is indicated that the forgery of official documents may consist of a complete falsification or a partial change in the content of a genuine document (Resolution of the Criminal Chamber of the Supreme Court of Ukraine, 2013).

During the pre-trial investigation of criminal offenses in the field of ensuring the activities of the stock market, the need to appoint a technical expert arises in the process of studying various documents. In criminal proceedings, there may be a need to establish the fact of the production of a document using computer technology or obtaining a copy using copying and duplicating equipment; to solve diagnostic, and in some cases, identification tasks for documents produced using digital, laser printers and copying and duplicating equipment; to identify matrix printers by documents produced using them.

When ordering a technical examination of a document produced using computer or copying and duplicating equipment, the following tasks may be solved: determining the method of production of the document; determining the type and model of the technical means by which the document was produced; clarifying the fact of the production of several documents using the same specific technical means (Zapototsky, 2017).

The commission of criminal offenses in the field of ensuring the activities of the stock market is often associated with the forgery of design, estimate, and reporting documentation: forgery of signatures and handwriting of an official in the relevant documents; forcing a certain person to sign, receipts, instructions, execution of contracts, etc. Therefore, when during the investigation of the specified illegal acts, the question of identifying the executor of the manuscript, the signature arises, a forensic handwriting examination is assigned.

It should be emphasized that today the tasks of establishing the executor are complicated due to the use of technical techniques and means during the forgery of handwriting objects. Each such examination, which is assigned as handwriting, requires the expert to know not only in the field of forensic handwriting but also in the field of technical and forensic examination of documents, since only a comprehensive approach to solving the issues raised can ensure the completeness of expert research and the successful solution of expert tasks.

Digitization, the development of computer technologies, has led to a decrease in the number of handwritten texts, and, as a result, to a reduction in the volume of handwriting objects, in connection with which, the qualitative-descriptive method, in some cases, is ineffective in solving identification tasks in the study of signatures and short handwritten notes. They account for the largest number of unresolved identification issues because the small amount of information about the performer in these objects does not allow for the identification of the required number of qualitative-descriptive features. Additional difficulties are caused by a non-standard way of making changes to the writing object. Under such conditions, traditional forensic research methods for the most part do not allow for unambiguously solving expert tasks (Krasyuk, 2023).

It should be noted that the capabilities of modern forensic handwriting examination cover a complex of identification, diagnostic, and other tasks. However, as the analysis of the literature shows, the theoretical provisions of certain research methods are morally outdated and require adaptation to modern handwriting objects in view of the emergence and updating of technical techniques and means of their forgery. It is characteristic of the modern period that the production of forged documents has become one of the branches of criminal activity, often carried out in a group, in particular an organized one, which is associated with the "specialization" of criminals, the emergence of skills in forging signature objects, reproduced using high-tech means, and performed at a fairly high level. Criminals have learned to imitate the pressure characteristics of handwriting objects, which has led to the emergence of new difficulties in practice due to the lack of appropriate methods for conducting handwriting research under such conditions and circumstances. It has become more difficult for experts to determine the authenticity of small-sized handwriting objects submitted for examination and to solve other expert tasks (Gryga, 2016; Krasyuk, 2023).

The widespread use of modern computers and office equipment has contributed to the improvement of the process of forging documents and their details, thereby causing a change in the qualitative composition of the objects of handwriting research. Currently, expert practice is dominated by low-informative handwriting implementations - signatures and short notes, which usually have a simple design, consist of several letters and arbitrary elements of various configurations that do not form specific letters, or from conventional writing signs in the form of a system of simple movements, which significantly limits the amount of graphic information contained in them.

In our opinion, in such cases, it is advisable to conduct a comprehensive forensic examination by one expert who has special knowledge in both the field of handwriting analysis and technical forensic examination of documents. This will significantly reduce the time spent on handwriting analysis, and will also provide a comprehensive and in-depth study of the properties and features of such uninformative writing objects, in particular, it will provide an opportunity to conduct a detailed study of signatures and short handwritten notes at the time of their execution using technical techniques or means (Krasyuk, 2023).

During the investigation of criminal offenses in the field of ensuring the activities of the stock market, telecommunications examination is widely used, i.e., the study of telecommunications systems (equipment) and means. In the analyzed criminal proceedings, it is intended for: establishing facts and methods of transmitting or receiving information in telecommunications systems; establishing facts and methods of accessing systems, resources, and information in the field of telecommunications; establishing the configuration and working condition of telecommunications systems and means; research of information processing algorithms and its protection in the field of telecommunications, etc.

Computer technical examination is assigned in case of the detection of documents in electronic form, which are stored on "machine" media. Such research is of great importance in proving the circumstances of the commission of certain criminal offenses in the field of ensuring the activities of the stock market. After all, often the persons who committed them, before the beginning of criminal proceedings, manage to destroy or hide documents on paper media, while copies of these documents remain in the computer's memory, on flash drives, disks, etc.

Examinations of machine media, depending on the tasks being solved, are divided into two types: 1) technical examination of computers, their components and devices (establishing the purpose and characteristics of computer equipment, their technical condition, possibilities of use to achieve a certain goal, etc.); 2) data and software expertise (identification of information contained on computer media and determination of its intended purpose; recovery of deleted information; decryption of encoded files; establishment of the nature of changes made to programs, etc.) (Shepitko et al., 2006).

Conclusion

The use of specialized knowledge in proceedings on criminal offenses in the field of ensuring the activities of the stock market is an important tool for increasing the efficiency and effectiveness of such investigations in the context of digitalization and permanent improvement of the level of professionalism of representatives of the criminal world. The condition for increasing the level of efficiency of the use of specialized knowledge to solve the tasks of pre-trial investigation in such proceedings is a comprehensive approach, which consists in combining various forms of using specialized knowledge at different stages of the proceedings (obtaining consultations from specialists on issues requiring specialized knowledge; departmental inspections; participation of specialists in conducting investigative (detective) actions) and the appointment and conduct of relevant forensic examinations.

The use of the results of departmental inspections (audits, monitoring, financial audit, procurement inspection, procurement monitoring, etc.), the use of consultations of specialists in the field of ensuring the activities of the stock market (mostly economists) during the pre-trial investigation in general, as well as when conducting individual investigative (detective) actions, will allow the appointment of relevant examinations, ensure the receipt of procedurally correct evidence and avoid significant errors.

The following types of examinations are required during the investigation of the

analyzed proceedings: economic, handwriting, technical examination of documents, telecommunications, and computer-technical examination. Conducting handwriting examinations during the investigation of individual of the analyzed criminal offenses requires the expert to perform interrelated diagnostic and identification tasks during the study of handwriting objects, the implementation of which was preceded or accompanied by the use of technical techniques and means. It is advisable to expand the competencies of handwriting experts with the specialty "Research of document details", which will allow one expert within the framework of one examination to comprehensively examine such a complex object as a signature or a short handwritten note made using technical techniques and means.
The results of conducting relevant examinations in the investigated proceedings are negatively affected by the investigators' ignorance of their availability and capabilities, incorrect formulation of questions to the expert, an incomplete list of such questions, incorrect determination of the sequence of conducting judicial examinations, which is due to the insufficient qualification of the pre-trial investigation bodies, their low level of interaction with expert institutions. In order to optimize the use of special knowledge in proceedings on criminal offenses in the field of ensuring the activities of the stock market, it is advisable during the training of investigators and advanced training sessions to pay more attention to highlighting issues related to modern directions and capabilities of expert institutions, procedural aspects of inviting specialists and experts to assist in the investigation.

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