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FORENSIC ACCOUNTING EXAMINATION, FINANCIAL ANALYSIS AND LAW: OBJECTIVE NEED AND PROBLEMS OF COMPLEX APPLICATION

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Abstract: The purpose of the article is to determine the place of analysis and its methods in the system of forensic accounting examination, to identify the peculiarities of conducting forensic accounting examination in the legal aspect with the use of financial analysis. The empirical method and the author's generalization, analysis and synthesis were used in the research process to prove the relationship between forensic accounting, analysis and law. With the help of evaluation, comparison and modeling, the role of financial analysis in the practice of forensic accounting was investigated, as well as its tasks and characteristics were established. A questionnaire approach was used to identify the riskiest operations in accounting. It was concluded that such operations should be expertized in the first place. The results of the study indicate the need to use analytical methods when conducting forensic accounting examinations, the existence of a relationship of methods and techniques of forensic accounting examination and analysis, the growing role of modern IT for conducting expert procedures and analysis. A conclusion has been formulated about the need to improve the regulatory and legal framework regarding forensic accounting expertise, the need to organize advanced training of expert specialists in educational institutions of the relevant profile. The expediency of developing competency components and innovative methods of conducting forensic examinations is substantiated.

Keywords: forensic accounting, law, analysis, financial analysis, methods, techniques, process, interdisciplinary connection, improvement.

Formulation of the problem. In the conditions of instability, frequent changes in legislation and the active development of innovative phenomena in the economy, the need to strengthen control over the legality of economic transactions is growing. Current systems of state and internal control are not always able to resist negative manifestations and errors in management. It should be recognized that some of the shortcomings are not accidental, but intentional in

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nature. Abuses in the economic sphere in today's dynamic conditions belong to the category of the most difficult. At the same time, they belong to the group of the most massive. This is confirmed by the fact that, according to the calculations of the Ministry of Economy, the level of the shadow economy in Ukraine in January-September 2020 increased by 3 percent compared to 2019 and was equal to 31% of GDP [1]. In total, this amounts to more than 46.9 billion dollars. USA, which is more than 6 times more than allocated funds in Ukraine for education.

In such conditions, the role of judicial bodies, in particular forensic examination (forensic accounting examination, or as it is also called - forensic accounting), is particularly relevant.

The problem of implementing the tasks of forensic accounting lies in the plane of many related sciences. This is objective, because forensic accounting aims to identify hidden self-interested actions of officials and other persons, carried out in the field of economic issues. The latency of the nature of such actions allows them to be disguised as legitimate economic operations or processes. It's no secret that in the field of economics, unscrupulous workers look for, and often find, quite apparently legal grounds for the implementation of their criminal plans. In view of this, when conducting judicial and investigative activities within the framework of conducting a forensic accounting examination, it is important to have a high level of economic, regulatory and legal knowledge, as well as to be able to use analysis tools, in particular financial analysis ones. Considering the importance of forensic accounting, the volume of abuses in the economic sphere and their veiled nature, there is an objective need for the development and application of innovative methods for detecting violations and researching the possibilities of using the methodology of related sciences.

Analysis of recent research and publications. The main legislative provisions, personnel support and approaches to forensic accounting are established by the Law of Ukraine "On Forensic Expertise" [2]. However, methodological support, the specifics of forensic accounting is a rather problematic and insufficiently researched direction. In today's dynamic conditions, the interest and need for such research is growing.

The relevance of forensic accounting is emphasized even by the fact that it is included in the list of mandatory special disciplines in many institutions of higher education in Ukraine. In addition, scientists and practitioners are actively studying and researching methods and essence of forensic accounting. Thus, in many studies of scientists and practitioners (in addition to issues of organization and methodology), the meaning and essence of forensic accounting is identified. At the same time, most researchers, considering forensic accounting as a special discipline, quite rightly point to its complexity [3, p. 4; 4, c, 553; 5; 6, c. 132].

Revak I.O., Khomin O.Y., Kirzhetskyi Y.I., Melnyk S.I. provide the most collected and comprehensive definition. : "Forensic accounting is a special economic discipline that carries out an economic and legal analysis of the financial and economic activities of economic entities, develops a methodology for the disclosure of economic crimes, conditions for the appointment and conduct of forensic accounting examinations and out the result of interdisciplinary integration on the border of accounting theory accounting and jurisprudence" [7, p.9].

Given this positioning of forensic accounting, its methodological apparatus includes appropriate methods. They belong to different groups of sciences: economics, analysis, accounting, control, law.

In this regard, scientists note that forensic accounting uses own methods. They represent a set of general scientific and specialized methods and methods of researching financial and economic processes, accounting documentation and reporting. With this in mind, forensic accounting uses the following methods: accounting analysis and accounting; analysis of business operations; economic and documentary analysis [7, p. 17].

There are scientists who position the methodology of forensic accounting with the complex application of methodological tools of control [8, p. 265].

The correctness of this vision of forensic accounting is explained by the wide use of both traditional and innovative methods. At the same time, it is only important that they should ensure prompt detection of violations and abuses, or their refutation. Then it is possible to achieve effective management of the processes of liquidation of the consequences of violations, or normalization of the enterprise's activities (is about the possibility of closing criminal cases in the absence of a crime and further normal activities).

In general, in the works of scientists, a study of the procedures for conducting a forensic accounting examination is carried out in accordance with the legal framework adopted in Ukraine (economic, civil and criminal codes) and in compliance with the requirements for the formation conclusions.

However, for the successful implementation of such an examination, it is necessary to investigate issues related to the use of various tools, in particular financial analysis, which will improve the quality of the obtained forensic accounting opinion.

It should be noted that despite the presence of a significant number of publications, the issues of optimality in the use of certain methods of forensic accounting, their availability, efficiency and financial support continue to remain unresolved.

The purpose of the study is to identify the place of analysis and its methods in the system of forensic accounting and the management of forensic examination processes, as well as to identify the features of forensic accounting examination in the legal aspect with the use of financial analysis.

Presenting main material. In order to effectively manage the examination process and correctly choose its methods, it is important to identify the directions of inspections. The correlation between the concept of "efficiency" and "management" consists in the presence of a straight-line, and at some stages of development, a geometric-progressive connection [9, p.110]. Therefore, the issue of the essence and specifics of forensic accounting and related sciences is very important. It enables a better understanding of the possibilities of using methods, in particular analytical ones for the purposes of examination. Financial analysis and its tools are used as much as possible purposes of examination (given the prevalence of violations).

Despite the fact that there are various interpretations and definitions of financial analysis in the scientific literature, in the legal field it is guided by its official definition, which reads: "Financial analysis of the enterprise's activity is a comprehensive study of the financial state of the enterprise with the aim of evaluating the achieved financial results, which is carried out using the methods of financial analysis based on data from the company's financial statements [10]. He must perform the tasks of the judicial accounting office set before him, i.e.:

- to facilitate the comprehensive conduct of analytical work regarding the legality
 of the business entity's activities in accordance with the regulatory and legal
 documents of Ukraine;
- 2) identify negative impacts on the quality of the business entity's work in order to take appropriate measures to eliminate their causes and consequences;
- 3) act as a basis for monitoring the performance of tasks provided for in criminal proceedings;
- 4) be flexible to develop scientific and methodical provisions and methods for detecting self-interested offenses (theft) in the process of financial and economic activity of the business entity.

Since the main subject of forensic accounting is precisely economic crimes and violations, financial analysis should be one of the most used tools for detecting and evaluating such actions.

A simple explanation of this hypothesis is the fact that such an analysis provides the necessary evidence and evaluation of certain actions in a digital format with the help of appropriate indicators. That is, in other words, it ensures the achievement of the goals and objectives of the forensic examination, using analytical tools and methods (Fig. 1)

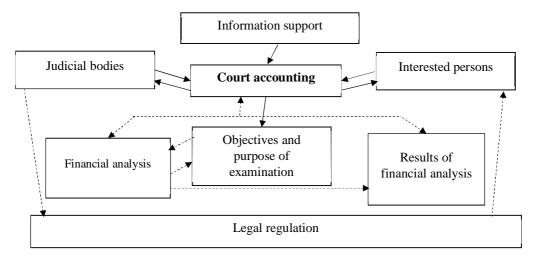


Fig. 1. The place of financial analysis in the forensic accounting examination system Note. Author's generalization

In turn, financial analysis requires an appropriate level of knowledge and competence in order to meet the requirements and provide results that will have legal evidence. In view of this, its comprehensive application for the purposes of forensic accounting requires appropriate guarantees. The easiest way out of such a situation is to turn to specialized firms or entities that meet these requirements in the legal field.

Also, it should be noted that each forensic expert, depending on the level of his training, is assigned a qualification and given a permit, which specifies the type of examinations he is

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allowed to conduct. The main components of the forensic accounting examination process are:

- 1) the preparatory stage, which provides for the appointment of an expert accountant, the definition of tasks by the management of the expert institution, the formation of a list of regulatory and legal documents for their detailed study;
- 2) the organizational-methodical stage involves the study of the presented documents regarding their full scope, the formation of the methodology for conducting the examination and the preparation of a plan for its implementation;
- 3) the research stage of the forensic accounting examination includes the implementation of the procedures provided for by the methodology of its conduct (including with the use of IT);
- 4) evaluation, generalization and implementation of the results of the forensic accounting examination involves the formulation of a general conclusion on the work carried out. The conclusion is drawn up by an expert accountant. It displays such elements as: systematization of research data, grouping of results and identified deficiencies. The conclusion is submitted to the body that commissioned the study. The investigator evaluates the presented conclusion and conducts appropriate investigative procedures.

In the process of conducting a forensic accounting examination, the level of its information support plays an important role. The tasks of information support are: conducting information work between participants in the process of forensic examination; provision of information about the functioning of the subject under investigation and compliance of its activities with regulatory and legal acts; proper provision of information by an expert accountant regarding the issue being investigated by the investigator of the case.

It should be noted that the main activity of an expert accountant involves the study of accounting documents, which, in accordance with the Code of Criminal Procedure of Ukraine, are provided for in the list of sources of evidence in the intelligence case. The modern system of documentary support for accounting is characterized by the use of computer information technologies and software products. Such specificity leaves its mark both on the actual formation of accounting documentation and on the procedures and methods of its examination. In fact, in practice, there is a real possibility of processing the sources of expertise in real time. This is connected, in fact, with the specifics of its information support, which is formed by the computer system (Fig. 2).

An equally important factor influencing forensic accounting and its implementation is the need to act in the legal field and with the involvement of relevant institutions. So, in addition to the actual legal nature of forensic accounting itself, as one of the transactions, it automatically requires legal regulation of those actions that are carried out at its request by other subjects. Accordingly, the above relationship scheme is transformed in a different interpretation and has the character of the complexity of all three components - forensic accounting, financial analysis and law (we believe that including financial law) (Fig. 3).

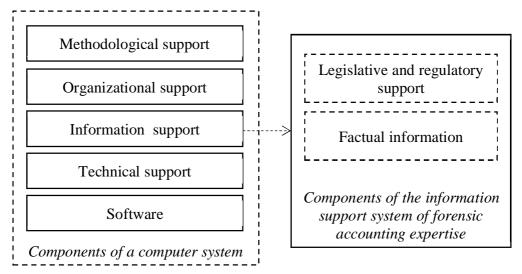


Fig. 2. Information support examinationNote. Author's generalization

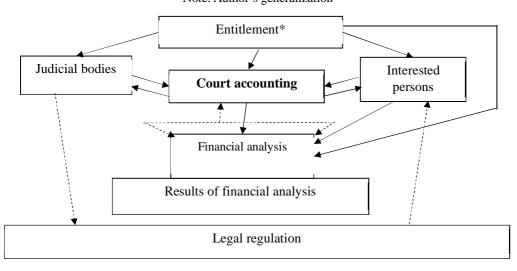


Fig. 3. Complex relationship of forensic accounting with financial analysis and law Note. Author's generalization

Complex application of analysis tools in accordance with legal requirements has many advantages and provides grounds for solving court cases in the legal field. Usually, after such investigative actions, there is no reason to doubt the veracity of the conclusions drawn and the adoption of legal decisions. However, there are also problems that arise.

The first of them is the subjects who conduct the analysis. Different subjects may have different levels of trust. Of course, clients (including judicial authorities and persons under

investigation) can order financial analysis at their convenience. Many firm (consulting and others) have the right to carry out such an analysis because they usually register the corresponding type of activity. But for better communication and strengthening of trust, it may be necessary to establish within territorial and administrative boundaries a list of recommended firms that can implement orders for financial analysis. In this way, it is possible to achieve the maximum truthfulness of the results of examination and analysis, which will contribute to the saving of time and resources of all participants in the legal process. The application of methodology and tools of analysis for the needs of forensic accounting is characterized by the presence of a close connection between them. It manifests itself, for example, in the similarity of the methods they use when evaluating the corresponding subject. A comparison of the methods of financial analysis and the methods of forensic accounting proves that there are certain regularities in them that are directly related to human rights practice. In particular, for objective reasons, it can be stated that financial analysis is an important component of forensic accounting, as thanks to the use of its methods, errors are detected in the process of calculating financial and economic indicators reflected in accounting documents (Fig. 4).

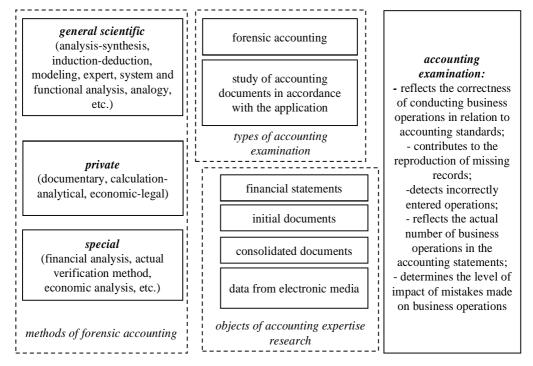


Fig. 4. Basic elements of forensic accounting.Note. Author's generalization

In addition, the resulting indicators used by the forensic accounting department are also formed using analytical tools.

It should be emphasized that the forensic examination is carried out exclusively on the basis of a court decision. Instead, the study of accounting documentation is carried out by the relevant order of interested persons (managers, owners, counterparties, potential investors). In the first case, the study of the correctness of the display of economic transactions is carried out by an expert accountant on the basis of documents provided to him by an investigator or a court. Expert accountant he performs analytical work using methodological techniques, which can be conditionally divided into general scientific and proprietary (specific). General scientific methods represent a set of categories of materialistic dialectics, principles and theories of knowledge. They include analysis, synthesis, induction, deduction, analogy, abstraction, modeling, specification, functional-value analysis, system analysis, etc.

The use of one's own scientific research methods, which were formed on the basis of economic and legal sciences and the practical experience of investigative, forensic and audit services is important in the process of analytical work. These methods include the following groups:

- documentary related to the control of documents, and implemented in the form of: formal and arithmetic verification; complete and incomplete research; normative and legal evaluation of the display of economic transactions; carrying out an assessment of the legality of business transactions in accordance with the corresponding accounts; cross-checking of documents and accounting registers with identical data of counterparty enterprises, etc.;
- 2) computational and analytical, used to detect deviations in the examined documents. They include: techniques of economic analysis, economic-mathematical methods and statistical calculations;
- 3) organoleptic techniques involving the following works: conducting control measurements; observation of the actual condition of the object; carrying out selective observations; official investigations; carrying out experiments with the aim of researching the quality of the work carried out; technological expertise regarding engineering and technical preparation of production;
- 4) evaluation, generalization and implementation of the results of the examination, which involves the classification and grouping of detected offenses according to their economic homogeneity and chronological sequence, etc.

The use of analytical methods is quite an effective tool in conducting forensic examinations. However, to increase efficiency, it is important to carry out point control. For this, you need to have information about the most dubious operations and actions on the part of accounting employees. In order to identify them, it is advisable to conduct a questionnaire survey of enterprise accountants and experts in order to identify the riskiest operations and places of occurrence of errors by enterprise employees in the course of their work. Even a minimal such study allows you to draw certain conclusions and, later in the examination process, to focus on those problem areas identified by the results of the questionnaire. For example, in our research, we used a questionnaire (Table 1) to interview 5 experts.

Table 1

Questionnaire

survey of experts on the main mistakes made by accountants*

№ п/п	The main reasons for conducting a forensic examination			
1	the correctness of cash and settlement transactions	10		
2	the correctness of the posting of material values	8		
3	the correctness of calculations, salary payments and other payments to employees	9		
4	whether all present material values are accounted for in the primary documentation	7		
5	the correctness of correspondence of accounts in accordance with the plan of accounting accounts	6		
6	compliance with regulatory and legal legislation regarding accounting	8		
7	the correctness of entering transactions into accounting registers	9		

Note: * - the evaluation of the proposed components of the questionnaire should be carried out in points from 1 to 10 depending on the frequency of detected violations, taking into account the experience of the respondent; author's research

A survey of 5 expert accountants was conducted in order to determine the most frequent mistakes made in accounting. Each proposed factor is assigned a value from 1 to 10 points. The obtained results are summarized in Table 2.

Table 2 The results of a questionnaire survey of employees regarding the main mistakes made in the process of the company's activities

No	The main reasons for conducting a forensic examination	Scores given by respondents					Average	Risk rating
		1	2	3	4	5	SCOIC	Tatilig
1	the correctness of cash and settlement transactions	10	10	8	8	9	9	1
2	the correctness of the posting of material values	8	7	3	4	5	5	4
3	the correctness of calculations, salary payments and other payments to employees	9	7	8	5	7	7	3
4	whether all present material values are accounted for in the primary documentation	7	7	5	8	6	7	3
5	the correctness of correspondence of accounts in accordance with the plan of accounting accounts	6	5	3	4	3	4	5
6	compliance with regulatory and legal legislation regarding accounting	8	10	9	7	7	8	2
7	the correctness of entering transactions into accounting registers	9	7	7	8	7	8	2

Note. Author's generalization

So, according to the results of the study, we state that the main share of errors in the process of conducting economic activity falls on the correctness of cash and settlement transactions (100% of respondents agree with this statement with a small difference in points), the correctness of entering transactions into accounting registers (100 %) and compliance

with regulatory legislation on accounting (100%). From the conducted research comes the conclusion that it is the primary duty of the expert to pay attention to these areas of accounting.

The example given by us is a rather simplified illustration of identifying problem areas during the examination. First of all, it should be recalled that it is carried out at the request of judicial authorities, which indicate the subject of the inspection. But the questionnaire can be formed precisely taking into account the already defined subject. This will allow identification of the most problematic control points.

As for other problems of complex application of financial analysis for the needs of forensic accounting within the framework of the legal field, the possibilities of using IT should be highlighted in their composition. For the convenience of communication, modern technical means are used quite actively. This helps save time and resources. But in this context, it is important to achieve a balance in the issues of commercial secrecy, data transfer and data protection, the use of appropriate personalized identifiers, etc. These are also important problems, which, however, are solved by the same IT.

A classic example is the use of an electronic digital signature. Interesting in this context is the experience of Poland, where this signature can be put on documents using your trusted profile (profil zaufany). The principle of its application consists in at least 2-stage control: through registration in the all-Polish system and communication with the banking system (the bank in which the client has an open account).

In Ukraine, such procedures are easy to implement in the Diya system. It is only important to properly ensure protection against criminal encroachments. Therefore, it is extremely important to have a powerful data protection system. Due to the introduction into judicial bodies of activities related to the protection against illegal encroachments on information in cyberspace (cyber protection), there is a high probability that such a problem can also be solved quite quickly and effectively.

Conclusions and prospects for further research. To date, a number of unresolved problems related to forensic accounting continue to exist in Ukraine. The main attention should be paid to the improvement of the regulatory and legal framework, in particular in terms of forensic accounting expertise. Also, it is expedient to organize advanced training of experts, including through the exchange of experience. Such measures should be implemented in educational institutions of the appropriate profile. In addition, in such institutions, more attention should be paid to innovative methods and approaches to conducting forensic examinations. This, of course, is an actual direction of research and development of educational programs.

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СУДОВО-БУХГАЛТЕРСЬКА ЕКСПЕРТИЗА, ФІНАНСОВИЙ АНАЛІЗ І ПРАВО: ОБ'ЄКТИВНА НЕОБХІДНІСТЬ ТА ПРОБЛЕМИ КОМПЛЕКСНОГО ЗАСТОСУВАННЯ

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Анотація: Метою статті ϵ визначення місця аналізу та його методів у системі судовобухгалтерської експертизи, виявлення особливостей проведення судово-бухгалтерської експертизи в правовому аспекті із застосуванням фінансового аналізу. У процесі дослідження використано емпіричний метод та авторські узагальнення, аналіз і синтез для обгрунтування взаємозв'язку між судово-бухгалтерською експертизою, аналізом і правом. За допомогою оцінки, порівняння та моделювання досліджено роль фінансового аналізу в практиці судово-бухгалтерської експертизи, а також встановлено його завдання та характеристики. Для виявлення найбільш ризикових операцій в бухгалтерському обліку було використано анкетний підхід. Зроблено висновок, що такі операції мають проходити експертизу в першу чергу. Результати дослідження свідчать про необхідність застосування аналітичних методів при проведенні судово-бухгалтерських експертиз, існування взаємозв'язку методів і прийомів судово-бухгалтерської експертизи та аналізу, зростання ролі сучасних інформаційних технологій для проведення експертних процедур та аналізу. Сформульовано висновок про необхідність удосконалення нормативно-правової бази щодо судово-бухгалтерської експертизи, необхідність організації підвищення кваліфікації спеціалістів-експертів у навчальних закладах відповідного профілю. Обґрунтовано доцільність розробки компетентнісних компонентів та інноваційних методик проведення судових експертиз.

Ключові слова: судово-бухгалтерська експертиза, право, аналіз, фінансовий аналіз, методи, прийоми, процес, міждисциплінарний зв'язок, удосконалення.

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