THE IMPORTANCE OF FORENSIC AUDITING TECHNIQUES AND INSTRUMENTS IN COMBATING CRIMINAL ACTS

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INTRODUCTION

Numerous corporate crimes and financial scandals in the late 20th and early 21st century, accompanied by significant losses, pointed to serious deficiencies and ambiguities in traditional accounting and auditing practices, highlighting the need for experts who can recognize, detect and investigate complex schemes of criminal activities in financial statements. Therefore, the importance of a more detailed perception at the role of forensic audit in the context of detection and prevention of criminal acts is increasingly highlighted. Efforts to detect and prevent criminal acts, especially in financial reports, have influenced the development of forensic auditing. As a primary need that is imposed before the forensic audit is to study the nature, categories, forms and patterns of criminal acts as well as warning signs of ”red flags” because this is a prerequisite for their prevention and detection.

Criminal acts, as socially negative phenomena, represent a serious problem in all countries today, causing not only financial losses to the company, the state, but also the loss of their reputation in the public. In this sense, the methods and techniques applied by forensic auditors can be useful instruments in combating criminal activities, as they enable criminal auditors to find and document deficiencies, manipulations and omissions in financial statements and accounting as a whole.

The role of forensic audit, as a new specialized service of the auditing profession, in the social context and according to its importance can be seen through pointing out the possibility of occurrence, the resulting criminal act or the prevention of the possibility of the occurrence of criminal acts in connection with financial statements and their importance. Misrepresented data in financial reports is not always the result of ignorance, oversight or incorrect application of international accounting standards, but also criminal actions for the purpose of obtaining personal profit.

In order to prevent the further increase of criminal acts, especially their sophisticated form, false financial reporting, the posibility to discover the manner in which they were committed, as well as the identification of the perpetrators, is extremely important. One of the key roles in the audit of criminal acts is the application of modern forensic instruments with the help of computers. The development of analytical procedures and models as an audit tool is also very important considering the scope of audit engagement and the growing demands of today’s business environment.

This paper opens the issues of a new field of activity of the auditing profession and a new practical challenge for this profession - the detection of criminal acts. The growing problem of criminal acts,

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expressed in the form of corruption, embezzlement and false financial reporting, points out the need of countries around the world to reduce or neutralize the scope of these socially negative phenomena.

PURPOSE

Today's entrepreneurial activity generates sustainable economic growth and a better standard of living (Janošik et al, 2023). Today in modern business, the frequency of criminal acts and the appearance of new forms is an extremely serious problem not only for the owners and top management of companies, investors and other interested parties, but also for the accounting and auditing profession, which must design and develop methods, procedures for the investigation of criminal acts that are primarily reflected in the company's financial statements. Using the power of data analytics, organizations can derive actionable insights to optimize resource allocation, mitigate risks (Pantović et al, 2024) and introduced financial controls. In this context, practice has given birth to forensic auditing as a new service within the audit profession. It is a specialized activity of auditing financial statements, the primary objective of which is the prevention, detection and investigation of criminal acts in financial statements.

Essentially, criminal actions in/with financial reports represent intentional actions aimed at illegal appropriation of property and money, falsification of accounting documents, presentation of non-existent transactions, changes to documents and records, etc. The work of the forensic auditor is important for detecting irregularities in the information presented in the financial reports, i.e. for the investigation of fraud and the detection of perpetrators of those criminal acts. Forensic auditors use various analyses and methods as well as computer-equipped techniques in order to effectively identify criminal activity and detect fraudulent financial statements.

After the introduction, in the first part of the paper, the focus is on the definition and typology of criminal acts. False financial reporting, which is the result of manipulative accounting, is the subject of consideration in the second part of the paper, which examines criminal schemes and "red flags" that indicate possible criminal activity in financial reports and accounting. The problem of detection and prevention of criminal acts is dealt with in the third part, in which the concept of forensic audit is determined and the objectives are explained, as well as the characteristics of the audit profession subject are described. The fourth part of the work deals with the consideration of the forensic audit methodology, that is, the procedures related to the audit process. Also, the subject of this part of the work are tools and techniques with the help of computers that are used in the detection and prevention of criminal acts. This is followed by a conclusion that emphasizes the importance of forensic audit in detecting criminal acts in financial reports and clearly indicates the perspective of applying forensic audit in suppressing a wide range of criminal acts. Finally, the used references are written down.

DESIGN/APPROACH

Definition and Typology of Criminal Acts

From the point of view of researching criminal acts, special significance for their understanding has the definition of their categorization. There are no definitive and unchanging rules for defining the term of criminal action. The criminal action essentially involves various ways of fraud that human mind can devise, which individuals use to take advantage over other persons with false claims. Criminal actions include a wide range of phenomena characterized by deliberate deception or misrepresentation, and aims to achieve an illegal benefit for an individual or organization, with the fraudster who can be outside or within the organization. As synonyms, the terms are often used: ”fraud, i.e. the fraud actions”, ”criminal offenses”, ”illegal activities”, ”malversations”, ”manipulation”, ”deception”, etc. In the accounting literature, the fraud is also known as ”white collar crime”, embezzlement and irregularity (Knežević, Mitrović & Cvetković, 2019: 102).

In a modern sense, criminal acts include dishonesty in the form of deliberate deception or deliberate misrepresentation of material facts (Singleton et al., 2010:12). International audit standards define criminal activity as ”an intentional act, performed by one or more persons, who are responsible for management, employees, or third parties, who are involved in a secret agreement, to obtain an unfair, illegal advantage” (MSSR, 2004: 220). These criminal acts represent extremely socially dangerous behaviour of individuals and groups, that is, legal entities, companies, institutions or other organizations, because in this case, the violation of regulations directly or indirectly endangers the financial interests of the entire social community. This again entails causing great damage to the fiscal system and the public revenue system in general (Knežević, Cvetković, et al., 2021).

In a general sense, a criminal act is the deliberate manipulation of the truth for financial, material or personal gain. It is widespread in many parts of the world and exists even in those areas where people are generally considered to maintain high ethical standards. Every company, organization can be affected by a criminal or fraudulent act, with the possibility of losing property and reputation as a result of improper actions of its own employees and external persons. There is no society, enterprise, company and organization that is completely immune to criminal acts and that has eradicated them. Every form of criminal activity violates or endangers certain social values. All these values are manifested through adequate social relations. It is characteristic of every type of delictual, especially criminal, behaviour that it attacks, and by not sanctioning it, damages certain social relations, and within them certain activities, processes and values (Milošević & Cvetković, 2012).

Although there are several ways and categorization of criminal acts, the following basic groups are often mentioned in the literature according to (Cvetković & Kešetović, 2018):

- perpetrators of criminal actions;
- regulations of criminal legislation;
- accounting cycles;
- forms and execution methods of criminal actions.

Criminal actions according to perpetrators - When it comes to criminal actions and their perpetrators, they can include (Albrecht et al., 2012:10):

1) Those in which the organization is a victim of fraud:
   - fraud committed by employees where the perpetrator is an employee of the organization;
   - fraud committed by sellers - the perpetrator is the company’s supplier;
   - fraud committed by customers – the perpetrator is the customer of the company.
2) Management fraud where the victims are shareholders or creditors of the company
3) Various types of frauds in investments and stocks, as well as various frauds with consumers where the victims are usually unwary individuals
4) Other frauds

Criminal actions according to the regulations of the criminal legislation (Cvetković & Kešetović, 2018) - Since the legal regulations are of a variable nature and can differ in the severity of sanctions in the form of misdemeanors, economic offenses or criminal acts, for the theory and practice of examining criminal actions in financial reports, it is necessary to know the criminal legislation of the country of residence. In the Criminal Code of the Republic of Serbia (Official Gazette of RS, 2019) there is a large number of criminal offenses, including criminal offenses related to the economic and financial area (unwarranted loan approval and other benefits; fraud in the economic activity performance; tax evasion; malpractice of a person-in-charge; money laundering; falsification of official documents; misuse of official incumbency, service frauds etc.). Apart from the mentioned criminal acts, others can have a materially significant impact on the business operations of companies and their financial statements (taking bribes, giving bribes, etc.). Various forms of criminal acts are present and can occur in all activities, both in the private and public sectors. In addition to the Criminal Code of the RS, the field of business operations is also regulated by other laws that regulate business in general, as well as by laws that regulate specific fields of business (construction, energy, agriculture, etc.).

Criminal actions according to accounting cycles (Cvetković & Kešetović, 2018) - This division of criminal actions in financial reports has been made according to the accounting cycles, so criminal actions can be classified into the following cycles:

- sales and billing;
- purchases and payments;
- payrolls and personnel;
- warehouses and stock;
- capital asset acquisition.

As the person, who investigates the origin of a criminal action, is able to carry out the procedures for its detection and prevention, he must, besides possessing accounting and other professional skills and knowledge, have a good knowledge of the forms and execution methods of criminal actions. The importance of knowing the forms and execution methods of certain criminal acts, for their successful prevention and detection in financial reports, is obvious. Accordingly, international auditing standards list the following as the main forms of criminal activity in financial statements:

- financial statement fraud;
- fund misappropriation.

However, the Association of Certified Fraud Examiners (ACFE) in addition to these two main types of criminal acts, includes the third one, corruption, ”in which the fraudsters wrongfully use their influence in business transactions in order to procure some benefit for themselves or another person, contrary to their duty to their employer or the rights of another” (Wells, 2005:41). Namely,the research conducted by ACFE shows in a significant number that companies in countries worldwide and the world economy, as well, face three forms of criminal actions, that is, fraud (ACFE, 2024:4):

- corruption;
- asset misappropriation and
- financial statement fraud.

The classification given by the ACFE has a characteristic form better known as the ”fraud tree” (ACFE, 2024:11). Within each of the mentioned categories there are special subcategories. Thus, within the framework of corruption, the following are identified: bribery, conflict of interest, illegal gratuities and economic blackmail. With asset misappropriation, there are many different forms of fraud that fall into this category. A common feature is the theft of cash or other property from the company, and practice has shown that illegal appropriation appears mostly as: theft of cash, fraudulent payments, fraud with supplies, equipment, inventory, fraud with the sale of goods, misuse of property. All the aforementioned categories and forms of criminal acts are subject to investigation by various forms of control (internal and external audit, forensic accounting, state tax authorities, etc.) and each type of criminal activity has its own significance and the damage it causes. However, in this paper, greater attention will be focused on criminal acts in financial reports, that is, on the falsification of financial reports, as a special form of criminal activity that is the subject of a forensic audit investigation.

Financial Statement Fraud: Schemes and ”Red Flags”

Financial statement fraud is defined as ”deliberate misrepresentation or omission of certain data or disclosures in financial reports with the aim of deceiving the users of financial reports”, (MSSR, 2005: 277) while fund or asset misappropriation refers to the appropriation of funds of a legal entity which is often accompanied by redacted, as well as false records in order to hide property that has been appropriated or to use it without adequate authorization (MSSR, 2005: 278). The American Institute of Certified Public Accountants (AICPA) defines financial statement fraud as ”deliberate inaccuracies or omissions of amounts or disclosures in financial statements, in order to mislead users of financial statements” (Dimitrijević, 2015: 139).

According to the ACFE, of the three listed categories of professional fraud (Figure 1), the rarest criminal acts refer to those in financial statements, (5% of the cases in their study), in which the perpetrator intentionally has caused a false statement or omission of certain data in the company's financial statements, with the greatest financial losses ($766,000 per case) (ACFE, 2024:10). It is therefore the rarest form of criminal activity/fraud, which is also the most harmful. According to this research, as many as 12% of fraudsters are employed in the accounting sector (ACFE, 2024:5). Precise data on the amount of loss and frequency is difficult to determine, because many frauds are not identified or detected. Financial statement fraud is always a criminal act, while every criminal activity does not have to be related to falsifying financial statements, because there are criminal acts without a trace in the accounting documentation.

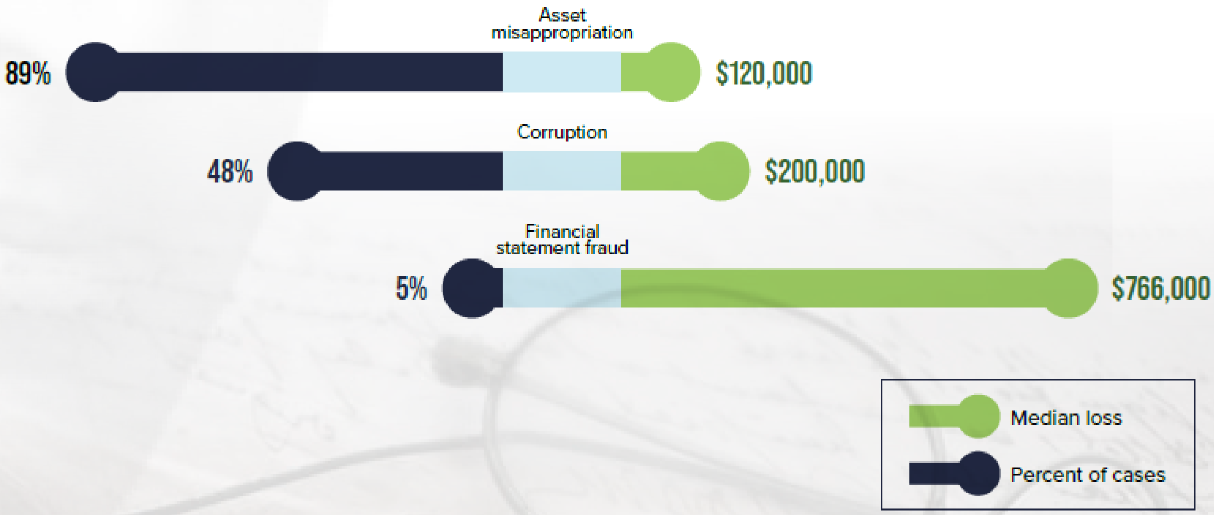

Figure 1. *How Is Occupational Fraud Committed? (ACFE, 2024:10)*

According to the ACFE model (ACFE, 2024:11), there are two subcategories of schemes related to financial statements: financial (high frequency) and non-financial (low frequency). Due to the number of frequencies, it is more necessary to clarify the financial subcategory. This subcategory can have five schemes or techniques of financial statement fraud (Singleton, 2010: 120):

1) **Timing differences (improper recognition treatment)** - ways to form schemes for this method and aggrandize revenue are as follows:
   - The method of filling the sales channel - if there is an excess of goods, it is shipped and then the stock is treated as sold (regardless of the fact that the goods will be returned in the following period is known in advance).
   - Surplus stock is directed to the persons who are sellers .
   - Premature revenue recognition - in the case of a multi-year contract, the entire revenue is recognized immediately to the detriment of the financial conditions in future years. At the same time, there is non-compliance with generally accepted accounting and other principles.
2) **Fictitious revenues** - this scheme implies the recording of sales that has never occurred and therefore revenue that may include a real or fictitious customer. As a result, an increased revenue, i.e. profit and assets, is achieved. The most common criminal activities of these schemes have been used in insurance companies and on that occasion it has created fictitious insurance policies in large numbers and for large amounts.
3) **Concealed liabilities (improper recording of liabilities**) - in this scheme, it is indicated that the recording of liabilities is delayed. In this way, the current year is shown with fewer expenses, while the resulting obligation is recorded in the first month of the following year. That's why there are frequent checks of time allocation and control over the review of invoices that bear the date of the year for which the audit is performed, and which are posted in the first month of the following year; then checking whether the company has transferred the resulting obligations to subsidiaries that are not audited or are being audited by another audit firm in order to cover up a criminal act. This scheme is often resorted to by companies that have their branches all over the world.
4) **Improper disclosures** - if the board of directors conceals its connection with special purpose entities or under the pretext of "accidentally" failing to disclose some obligations, criminal acts committed by management can be concealed.
5) **Improper asset valuation** - by increasing the amount of assets (mainly through receivables, inventory and long-term assets), capitalizing costs or reducing some accounts (adjustment for doubtful and disputed receivables, depreciation, amortization, etc.) financial data shows greater equity and profit than actual (Singleton, 2010: 123). If they treat an expense as an asset, the profit and loss account suddenly seems much better (Eremić Đođić, 2017:232-234).

The objective of all forms of financial statement fraud is to misrepresent the the company's financial and profitability position in order to deceive users of financial statements and obtain benefits for the company at the expense of investors, creditors and other users of financial statements. In other words, criminal activity in financial statements is aimed at financial acquisition, concealment and asset misappropriation or gratification of interested parties in various circumstances.

Detecting criminal acts in financial reports and accounting requires special professional knowledge and experience, and forensic accountants/auditors deal with the investigation of such anomalies in business reporting. Therefore the one who investigates their origin should be able to carry out the procedures for their detection, but also to carry out the phases of their prevention, he/she must be familiar with the forms, criminal schemes and execution methods of these criminal activities.

Criminal acts are usually well thought out and concealed because the perpetrators try to hide the traces of their illegal actions. However, it is known that there is not a perfect crime, and accordingly, every criminal act always leaves a certain trace. When a criminal act or fraud occurs, there are traces of the person who has committed the crime at the crime, or in the life of the person who has committed the fraud, as finger prints that can remain at the crime scene. "Red flags" are of various natures and including things like an accounting anomaly, an unexplained transaction or event, unusual elements of a transaction, changes in a person's behaviour or characteristics, or just characteristics commonly associated with known fraud, especially particular individual schemes or groups of schemes (Knežević, Mitrović & Cvetković, 2019: 102).

It is only a question of the ability to notice certain indications and so-called "red flags", which may or may not always be a sign of criminal acts. In this sense, "red flags" can indicate that at first glance "something is wrong" indicating the first hints of possible criminal activities. Generally speaking, "red flags" associated with criminal activity in financial reporting and accounting include:

- accounting anomalies;
- complex business transactions that are difficult to understand and do not give the impression of a practical and logical purpose;
- large and significant amounts of transactions towards the end of the reporting period, usually at the end of the business year;
- frequent and inexplicable changes of auditors and audit firms;
- showing financial results that seem "too good to be true", or much better than the competition;
- high frequency of employee turnover or employment of inefficient staff in the accounting, internal audit and information technology sectors;
- significant transactions with related legal entities that are outside of regular business activities or being concluded with related parties that are not audited or audited by another firm;
- significant business transactions carried out across national borders in legal systems with a different business environment and culture;
- the existence of bank accounts or the operation of dependent legal entities or business branches in legal systems with favourable tax systems ("tax havens") where there is no clear business justification;
- unusual profits;
- internal control weaknesses;
- aggressiveness of executive management;
- obsession with share price by executive management;
- discrepancies in accounting documentation;
- account balances that are significantly overrated and underrated;
- business events have not been registered in the bookkeeping in a timely and proper manner, in the proper period and to the correct account, or the registration has been made in the wrong way and in the wrong amount;
- postings /registration has been made to certain accounts in the general ledger without supporting documentation, or based on documentation that is suspected to be unreliable;
- original accounting documents are not available, only copies, etc.

It should be emphasized that this does not represent the final list of indicators, nor is it the same in all business entities and represents the most prevalent signs of potential fraud. Auditing and accounting theory and practice recognize various indicators of fraud, but their presence in a specific entity depends on whether there are elements of the fraud triangle, pressures, the possibility of committing fraud, as well as the tendency of employees to various manipulations. It should be emphasized that after the ”red” indicators are detected, various forensic techniques are applied, all for the purpose of detecting criminal acts.

Concept, Objectives and Characteristics of Forensic Audit

The loss of user confidence in the information presented in financial reports has negative implications for financial markets, and thus the economy. The development of civilization is based on numerous activities that apply modern scientific and technical achievements, although the performance of these activities is associated with the risk of various harmful consequences. Society should control the risks in these activities, which implies a systematic and planned approach with consideration of all relevant factors in order to minimize harmful consequences (Subošić, Cvetković & Vuković, 2012). Hence there is the need for the state, first of all, but also for professional organizations to do everything to prevent, if not completely prevent, the presentation of inaccurate financial statements to a large extent.

The financial statement audit is the procedure of checking and evaluating financial statements, as well as the data and methods used in the preparation of financial statements, on the basis of which an independent professional opinion is given on whether the financial statements in all materially significant aspects give a true and objective view of the financial situation and results of the business of a legal entity in accordance with the relevant regulations for the preparation of financial reports (Official Gazette of the RS, 2019.)

Forensic auditing is a new practical discipline within the auditing profession. It is a new area of financial statement audit, which has not been significantly regulated by professional regulations and standards yet. Forensic audit or ”Fraud Examination” (in the Anglo-Saxon domain), represents a special discipline within forensic accounting investigating criminal acts in financial reports (Petković, 2011: 99). Forensic auditing is a new branch of audit activity, that is, *a specific per se* scientific branch, which is dealt with by a forensic auditor.

The Institute of Forensic Auditors (IFA)[2] defines forensic auditing as ”the activity of collecting, verifying, processing, analyzing and reporting on data with the aim of obtaining facts and evidence that can be used in legal and financial disputes arising from criminal acts in financial reports and giving preventive advice”. According to Paul Thangam, forensic auditing is ”the application of accounting methods in the monitoring and collection of forensic evidence, usually for the investigation and prosecution of criminal acts such as embezzlement and fraud” (Vuković, 2021).

Forensic auditing is also defined as the activity of collecting, verifying, analyzing and reporting on data, with the aim of obtaining information and evidence, which can be used in court-financial disputes, arising from criminal acts in financial reports. It should also indicate the perpetrator of the criminal act and his position in the organization, i.e. the position he has had at the time of the criminal act, as well as establish whether he has committed the act independently or with other persons employed within or outside the legal entity. Namely, this type of audit deals with the detection of fraud, criminal activities, embezzlement, as well as other irregularities in financial and accounting reports.

A forensic audit is the examination of financial records to find relevant evidence that can be used in court or other legal proceedings. Forensic audit can reveal:[3]

2 The International Organization of Forensic Auditors in Belgium is a non-profit organization dedicated to the education of forensic auditors.

3 https://www.premiumaudit.rs/revizija-i-povezane-usluge/forenzicka-revizija/

- criminal actions related to tax evasion;
- financial fraud;
- criminal actions related to bankruptcy;
- criminal actions related to valuation;
- criminal actions based on relations among customers and suppliers;
- criminal actions related to procurement;

A forensic audit is focused on understanding and testing the system of internal controls to discover whether there are loopholes in the system that would allow fraud to occur. In this way, forensic audit acts preventively.[4] If a criminal act has already taken place, the forensic audit focuses on providing evidence for legal proceedings, conducting an investigation within the company, identifying fraud and helping to avoid major losses related to the fraud, so that the damage is minimal. Forensic audit helps to prove or disprove allegations and suspicions that are raised against the company (Petković, 2011:94). All of the above unequivocally indicates that the main obejective of the forensic audit is the detection of criminal acts in the financial statements, regardless of the materiality, that is, the degree of influence of the criminal act on the truthfulness and objectivity of the financial statements. In other words, the main objective of a forensic audit is to detect criminal activity in the financial statements, regardless of the opinions of the auditors.

In order to fulfill the main objective as a whole, the forensic auditor should find out who has committed the criminal act, where the criminal act has been committed, at what time, what damage has been caused, to calculate and report the material damage caused by the criminal act and, finally, describe the execution manner (Vuković, 2021). Auditors of criminal activities are experienced experts for documented monitoring of criminal activities in the business books of a legal entity. These are experts who possess a high level of professional knowledge, skills, values and ethics and use their knowledge to investigate criminal acts and manipulations in accounting. Such knowledge, de facto, involves: understanding criminal schemes, also, the ability to recognize warning signs, as well as other indications, which may be correlated with determined criminal activities. Also, such knowledge involves new information: first of all, related to criminal activities; then, the understanding and implementation of the algorithm, when investigating criminal activities; then, related to connections, with professional organizations, from this field, then, related to, continuous certification, from this field, also, understanding of symptoms, which refer to the social aspect and the behavioural aspect, in perpetrators of criminal activities, as well as, other aspects, in a causal-consequential correlation (Parnicki, Marić, 2020). Basically, forensic auditing results from the integration of accounting, investigative auditing, criminology and litigation services (Dada et al., 2013). Also, experts are supposed to be successful psychologists and to understand the mental mapping of potential fraudsters (Moretić- Mićić, 2021).

Forensic audit of financial statements as a new specialized service within the process of financial statement audit, involves contracting a special engagement with auditing firms and requires the work of auditors with special training and experience in fraud prevention and detection (Buckhoff, 2008). This type of audit focuses on areas where symptoms of fraud appear, performing a detailed examination of each individual transaction of that business segment. Realisation as a targeted audit is based on the suspicion of the entity's management or external audit that there are indications about a criminal act which has been committed. The characteristics of forensic audit are manifested in (Buckhoff, 2008):

- Examining most or all transactions in the company where hints of fraud have appeared;
- Focus on the detection of criminal acts and manipulation of financial statements regardless of materiality;

4 Ibid

- Checking a longer period of time than the business year;
- Reports must be admissible for court proceedings.

The forensic audit application of financial reports, with the objective of better corporate management, generates significant benefits for the company and for the business environment itself. The most important advantages of applying this branch of the auditing profession are:

- It strengthens control mechanisms, with the objective of protecting business from financial fraud.
- It can play an important role for those companies that are controlled by regulatory authorities, in terms of helping companies to ensure compliance with rules and regulations. For example, forensic auditing can be useful in helping businesses ensure efficient and effective procedures in combating "money laundering", corruption, etc.
- It can contribute to the effective identification of areas/organizational units in companies that generate loss.
- It can provide expert support in resolving court disputes.
- It helps to detect the existence of interest conflict among managers through the improvement of transparency and verification for the resources which have been used, whether in private or public companies.

In addition to the advantages, the process of conducting a forensic audit has certain disadvantages, such as:

- Poor execution of a forensic audit could consume excessive amounts of management time and could become an undesirable distraction to the business.
- Forensic auditing can encompass a large scope of fraud investigations to the smallest detail. Under certain circumstances, the forensic auditor may request that the scope of the audit be increased, which will cause a fee increase for performing the audit process.
- Some employees see a proactive forensic audit as an offense to their integrity, rather than the means of improving control procedures for the benefit of the business.

Forensic Audit Methodology and The Role of Forensic Audit Instruments and Techniques

The criminal act audit implies a specialized approach and methodology in the detection and explanation of committed criminal acts. The main objective of the forensic audit engagement is to prove, confirm or challenge the suspicion of the existence of a criminal act.

Forensic audit, as a newly formed branch of audit, does not have its own, special, generally accepted standards, that is, it does not deviate significantly from the standard audit. In fact, this new field of the audit profession is still not regulated by professional regulations and standards. However, certain International Auditing Standards can be considered universal in terms of traditional (external and internal) and forensic audits, although their application objectives are different. Analogous to the previous one, the basic methodology applied in the financial statement audit is also applied to the forensic audit, with adequate adaptation. The methodology of the forensic audit consists of procedures and actions, that is, the procedures that forensic auditors use to detect criminal acts and collect evidence.

In order to detect or prevent a criminal activity in the field of finance, criminal activity auditors and internal auditors, as good experts of criminal schemes, should recognize warning signs that represent economic indicators of illegal activities in the field of finance, identify them and apply effective procedures and tests for their disclosure. In order to reduce the risk of illegal actions in this area to a minimum level, it is of inestimable importance to establish a system of strong internal controls, and to implement preventive measures necessary to create an environment that is not conducive to illegal actions in the field of finance. In this way, the management is provided with support, and corporate governance in the company is strengthened by defining the responsibilities of management bodies.

According to the author of Forensic Auditing, Relevant to ACCA Qualification Paper P7 (Forensic Auditing), the forensic audit process consists of the following stages:

- accepting the investigation;
- investigation planning;
- evidence collection;
- reporting;
- judicial proceeding.

The auditor is obliged to collect valid evidence to support his findings and report in order to achieve the objectives of the forensic audit. The audit evidence collected in the forensic audit procedure must be objective, relevant, convincing and unequivocally indicate a committed criminal offense, because court verdicts are given on the basis of such valid and high-quality evidence. Six types of audit evidence are available to the auditor to achieve the set objective of the audit (Stanišić, 2022:7):

1) physical evidence;
2) statements of third parties;
3) mathematical proofs;
4) documentation;
5) introduction of the client's personnel;
6) mutual data relations.

The forensic audit procedures used to gather evidence are called audit tests. Audit tests are a fundamental instrument that forensic auditors use to achieve specific forensic audit objectives. In the financial report, the company makes certain claims about the financial position and the success of the business. The task of the forensic auditor is to test the profit and loss positions shown in the entity's financial report, in order to detect possibly deliberately caused irregularities in the recognition, their valuation and presentation. In their work, forensic auditors use tests divided into four main categories (Stanišić, 2022:12):

1) analytical tests,
2) observation and research;
3) transaction tests,
4) account balance tests.

Analytical tests of financial information are conducted based on the study and comparison of relations among data. Analytical tests represent the analysis of significant indicators and trends, fluctuations and relationships that are inconsistent with other relevant information or that deviate from preset values. They help forensic auditors to focus on unexpected changes or unusual relations in financial data providing a basis for planning other tests. Observation and research are used to test controls for which adequate documentary evidence does not exist. Auditors examine various persons and conduct observation tests to determine who performs a certain activity or how or when that activity is performed (Stanišić, 2022:14). Transaction tests refer to the examination of documents and accounting records involved in the processing of a particular type of transaction. Transaction tests allow the forensic auditor to detect irregularities by analyzing individual business events. Balance tests, which directly examine closing account balances, are applied to entity account balances that make up balance sheet items in the financial statement. The objective of checking the account balance is to detect irregularities by examining the final balance and not the individual transactions that make up that balance.

The audit methods, which auditors use to gather evidence, can be classified such as:

- physical examination;
- documentation;
- document record monitoring;
- inspection;
- confirmations;
- activity repetition;
- observation;
- harmonization;
- investigation;
- analytical procedures.

Forensic auditors aim to present valid evidence to the court, whereby an invisible transition from audit to investigation takes place. Subsequently, forensic auditors perform the activity of collecting, processing, analyzing and reporting on data for the purpose of obtaining facts and evidence due to manipulations in financial reports. In addition to the detection of a criminal act, determining the perpetrator of a criminal act is the most important step in a forensic audit. Employees and company management can be identified as perpetrators of criminal activities (Stanišić, 2022:14).

The characteristics of a computer as a means of processing data and information cause it to be used more and more in the auditing field, where it becomes one of the auditor's basic instruments or tools. The speed, accuracy, ability of mass calculation and the possibility of memorizing a large amount of data, the computer directly ranks among the most reliable devices that are necessary today in the field of audit profession, including forensic audit. For this purpose, computer-assisted audit techniques have been developed (Gašparević, 2021).

Regarding the use of computers and information technologies in the process of financial report auditing, one should start by defining the term "computer assisted audit tools and techniques" (Computer Assisted Audit Tools and Techniques - CAATT). The term CAATT in the broadest sense includes the use of information technologies in the implementation of audit activities (Brown, 2003). Therefore, CAATT includes two segments (Mijić & Jakšić, 2019):

- Computer-assited audit instruments / tools and
- Computer-assisted audit techniques

During the implementation of audit tasks, the auditor can use a large number of applications, i.e. tools. It is the auditor who, by using the computer as a tool, can significantly expand and deepen both the intensity and efficiency of the audit. Today, the auditing of criminal activities is simply not possible without the help of computer-assisted audit tools and techniques (CAATT). CAATT is a specialized computer programme, or process, used to test or otherwise analyze data in computer files. CAATT consists of a computer programme that the auditor uses as a part of the audit procedures, in order to process the data contained in the information system of the business area that is the subject of the audit (Stanišić, 2018).

CAATTs represent an extremely powerful tool to auditors in the investigation of criminal activities in financial statements consisting of a large number of instruments and techniques, such as general audit software, utility software, data testing, application software for tracking and mapping, and audit expert systems. These techniques enable auditors/criminal investigators to focus on high-risk areas, perform systematic in-depth analysis of data while isolating transactions that have indications of criminal activities as well as a high possibility of their existence (David, 1998).

These techniques can significantly improve audit efficiency during the planning, implementation, reporting and follow-up phases. In many cases, the use of computers can enable auditors to perform tasks that would be virtually impossible to perform manually, or that would be very time-consuming. The computer is the perfect tool for sorting, searching, arranging and performing various tests and mathematical calculations (Stanišić, 2018).

The Information System Audit and Control Association (ISACA) has issued document G3: Use of Computer Assisted Auditing Techniques (CAAT) (Gallegos et al,2012) (Appah, Zuokemefa, 2013). Computer-assisted audit techniques are used for a large number of audit procedures, and some of them are (Stanišić, 2018):

- detailed testing related to transactions and balances;
- analytical review procedures;
- compliance tests of general information system controls;
- compliance tests of application controls;
- testing the possibility of breaking into a computer system.

CAATT as a computer programme, apart from being able to be applied to IT files to analyze those data and perform audit tests, these techniques also have the ability to revise/regenerate a significant amount of audit evidence during the audit, therefore the auditor should plan and pay due professional attention in the use of computer-assisted audit techniques. These data analysis tools allow auditors to identify irregularities through the use of statistical methods, trend analysis and anomaly identification. The application of data mining and big data analysis significantly increases the accuracy of fraud detection.

Audit techniques with the assistance of computers are quite simple and enable efficient automated data audit. Any computer system can do what it is programmed to do and is actually an automated replacement for manual business processes. There are various types of computer-assisted audit techniques and they are being refined to the point where the solutions are cost-effective. Sometimes business software can be used for this purpose (eg. Access, Excel). Regardless of which tools are used, the aforementioned computer-assisted audit techniques must be adapted to the situation, objectives and audit procedures (David, 1998).

Computer-assisted audit techniques and tools target potential risks that may occur in transactions or data. In the audit of criminal actions, this direction implies the incorporation of general criminal schemes and their specific warning signs into the programme of audit techniques with the assistance of computers. If the right approach is applied, computer-assisted audit techniques can be an integral part and add value to the audit strategy, plan and procedures. They also give a great advantage in terms of effectiveness and efficiency, because more can be accomplished with the same amount of resources (David, 1998).

A few years ago, special software products were available to assist auditors in the development of CAATT. IT technology has changed significantly since these products were launched, and those special computer audit software products have been replaced by report creation and other tools available with many standard software tools. It is often unnecessary for forensic auditors to attempt to purchase (obrain) specialized audit software product, because today there are many excellent data mining tools available to the auditor to help develop CAATTs. For example, specialized audit software such as ACL (Audit Command Language) also has the capabilities of CAATT tools (Stanišić, 2018). Some software solutions are presented below.

Table 1. *Software Solutions for Fraud Protection*

Company	A software solution	Purpose	URL
Case Ware	IDEA	Data analysis	www.caseware.com/products/idea
Approva	BizRights	Automation and monitor control	www.approva.net/products/ bizrightsplat-form
Oracle/ Logical-Apps	Enterprise Control Management	Monitoring computer access and business transactions	www.oracle.com/solutions/ corporate_governance
SAS	SAS® Fraud Framework	Customer behavior monitoring, fraud detection	www.sas.com
SPSS	Fraud Detection and Prevention	Predictive analytics, data analysis	www.spss.com/fraud_detection
ACL Services	ACL	Detection of fraud in business	www.acl.com
Agena	Agena Risk	Risk management	http://agena-risk.com
Abrutus Software	Arbutus Connect	Data analysis	www.arbutussoftware.com
Arbutus Software	Arbutus Query	Data analysis	www.arbutussoftware.com
Bennett Technologies	ESuraksha	Securing Web-based software applications	www.bennettss.com/FraudAwareness.html
APEX Analytix®	FirstStrike® Fraud Detect	Fraud detection of suppliers and their payments	www.apexanalytix.com/fraud/ detection-software.aspx
Information Active	ActiveData	Data analysis and fraud detection in Excel	www.informationactive.com/ad
ISGN-Fair Isaac	Falcon Fraud Manager	Credit card fraud detection	www.fico.com
FraudLabs TM	FraudLabs TM Fraud Detection Web Service	Credit card fraud detection	www.fraudlabs.com/products.aspx

Sources: (Knežević et al., 2022:49).

Concerning the criminal activity audit, the most important quality of computer-assisted auditing tools and techniques is their ability to audit data and transactions, especially data integrity. The integrity of the data is subject to the influence of bad software, criminal acts related to improper data entry or other manipulations. The power of computer-assisted auditing techniques is based on their ability to efficiently audit large amounts of data, as well as their ability to audit 100% of data with relative efficiency. If we were to audit a large volume of transactions or data (information systems, financial reporting systems, and other systems), it would be very difficult for us without the use of computer-assisted audit techniques (Coderre, 2009).

The importance of computer-assisted auditing techniques is reflected in the analysis of large amounts of data relating a user. Data is the most important element of all accounting and business systems. Computer-assisted audit techniques can provide additional value when auditing data by adding value, thereby enabling auditors to integrate audit procedures into computer-assisted audit techniques. Such an audit is more efficient because the data is analyzed much faster and more thoroughly than would be possible if it were manual work. This process means that auditors during the initial stages of the engagement generally spend time developing appropriate tests and audit procedures. Most computer-assisted auditing techniques allow the automation of such procedures (Coderre, 2009).

The effectiveness and efficiency of an audit can be significantly improved by using CAAT to obtain and evaluate audit evidence. CAAT techniques represent a very effective means of checking a large number of transactions or controls over a large population, by analyzing given, selected samples from a large volume of transactions; they apply analytical procedures and perform essential examination procedures. The application of these techniques contributes to the completion of the audit work in a shorter time than is the case when other audit procedures are applied. It should be emphasized that auditors should have competences, that is, sufficient knowledge and skills for the development of an effective CAATT and for its implementation.

CAATTs techniques have built-in tools for documenting the work performed and the results of audit procedures used by auditors in their work, for example ACL, IDEA (Interactive Data Extraction and Analysis), PanAudit and Monarch. These specialized audit softwares allow auditors to automate data analysis processes, identify anomalies, and generate reports of findings. They significantly facilitate auditors the process of creating adequate, necessary audit work tests and presentation of results. The software of these auditing techniques can also import certain vendor files. Depending on the existence of certain limits, it is possible to import data into Microsoft Excel and Access, software that is generally available in enterprises.

Computer technology is one of the best risk and threat reduction tools. Technologies are often used to protect and defend computer and financial assets from any endangerment including criminal acts. Certain types of audit techniques with computer use software tools and techniques operating within the computer system. These types of software dealing with audit techniques are often called generalized (general) audit software (GAS - Generalized Audit Software) (Peter et al, 1990:428). Generalized audit software is software solutions that are purchased on the market and are primarily intended for the specific needs of auditors. Whether it is the needs of internal auditors, external auditors, state auditors or information system auditor, in every type of audit is the need for adequate and reliable data analysis (Mijić & Jakšić, 2019).

General audit software: ACL, IDEA, PanAudit, Monarch and others have clearly shown and proven their priceless value in forensic audit practice - when detecting malfunctions, criminal acts and computer crime in information systems and information technologies. The use of these software (GAS), computer-assisted audit techniques (CAATT) is a good way to oppose certain individuals or groups that abuse and attack computer systems. One of the main advantages of generalized audit software, from the point of view of criminal act investigation, is based on the very fact that auditors are able to examine all records and not just the cause. To use CAATT or general audit software (GAS) in order to detect computer-related criminal activity, the auditor should follow the next seven steps (McGraw-Hill, 2012):

- defining audit objectives;
- contact with the data owner and developer;
- submitting a request for obtaining data through a formal means;
- creating or producing files as input to the general audit software (gas);
- verifying the integrity of imported data;
- understanding data;
- data analysis.

Information technology's integral part in the auditing procedure significantly enhances auditor effectiveness, precision, and adaptability to contemporary economic conditions. Big data analysis, real-time monitoring, and automation have all played a major role in the transformation in audit implementation. Data collection, analysis, and preparing audit reports are some of the challenges auditors face when using information technology. Information technology strengthens security controls, facilitates access and management of audit documents, and supports electronic documentation processes. Information technology can affect auditors' perceptions of business relationships. A good balance between technological advances and traditional audit principles is required for the integration of information technology in auditing. (Indriyanto, 2023).

Auditors, in order to get the maximum benefit from CAATT when performing their tasks, must have professional education and training in information systems. Nowadays, in modern corporate relations, particularly in international business, and while using information systems, auditors should communicate in English fluently (Zejnelagić, Fetahović & Moretić-Mićić, 2022). The modern concept of forensic audit is precisely based on the computer integration into the audit process with its application from the very beginning of the audit process - from the moment of audit planning, through implementation and reporting, to monitoring the task execution and realization of recommendations.

CONCLUSION

Criminal acts are harmful phenomena, which imply significant financial losses for businesses, companies and the state. In an effort to reduce the number of criminal acts, to reduce the negative financial effects, and to restore trust in financial reports, the emergence and development of forensic auditing have taken place. The increase in the complexity of business in the environment has increased the need for this discipline. Forensic audit is a specialized area of auditing that focuses on investigating criminal activity in financial statements and financial irregularities.

Forensic auditors use a variety of techniques and tools to collect, analyze, and interpret data to uncover suspicious activity and secure evidence that can be used in court proceedings. It is a detailed investigation of financial transactions and accounting documents in order to find possible irregularities. This can be done in several ways, including analyzing accounts, transactions, business processes, documents, electronic records and other information. Combining the knowledge and experience of experts from various fields, such as accounting, auditing, law, informatics and forensics, forensic audit provides in-depth insight into financial transactions and business processes.

The importance of forensic audit techniques and tools (ACL, IDEA, etc.) is reflected in the detection of criminal acts (forensic techniques allow auditors to identify suspicious transactions and activities that could indicate criminal activity). By using sophisticated data analysis tools, forensic auditors can recognize patterns and anomalies that would otherwise go unnoticed. Also, the importance of these techniques is reflected in effective crime prevention (implementation of forensic tools and techniques helps companies to establish effective internal control systems that make it difficult to commit criminal acts). Regular audit and analysis of data deter potential perpetrators from attempting to commit criminal acts. And the collection of evidence is one of the benefits made possible by the application of the mentioned techniques and tools (forensic tools enable the collection and preservation of evidence in a way that is acceptable for court proceedings). The importance of audit techniques is also reflected in the increase in the effectiveness of forensic audit (using automated tools and software, forensic auditors can process large amounts of data faster and more efficiently, which significantly reduces the time required to conduct an audit and increases the accuracy of findings).

Regarding the paper, it is clear that the tools and techniques and their perspective in the future are of critical importance for all organizations that want to protect their financial resources and ensure the integrity of their business processes. With the constant advancement of technology and changes in the business environment, their importance and use will only grow, enabling organizations to effectively manage risks and ensure their success on a long-term level.

Concerning the paper, it can be concluded that forensic audit tools and techniques are of great importance for the detection and prevention of criminal acts in financial reports and in business, generally. Using modern methods of data analysis and specialized software, forensic auditors can effectively identify and document irregularities, providing key evidence for court proceedings and helping companies preserve the integrity of their business activities.

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