DOI 10.2478/sbe-2024-0031
SBE no. 19(2) 2024

ANALYSIS AND CLASSIFICATION OF CORPORATE FRAUD BASED ON THE LITERATURE AND INVESTIGATED CASES IN ROMANIA

Isabella LUCUŢ CAPRAŞ
Babeș-Bolyai University, Cluj Napoca, Romania

Monica Violeta ACHIM
Babeș-Bolyai University, Cluj Napoca, Romania

Abstract:
Corporate fraud has become increasingly common and sophisticated in today's complex economic world, and a variety of strategies for perpetrating fraud have arisen. Financial fraud has various negative implications in the corporate sector since it reduces efficiency and undermines confidence and loyalty among all stakeholders. In this context, the aim of this article is to identify the various types of corporate fraud by describing and categorizing them based on the motivation and purpose for which they are committed; additionally, different types of corporate financial crimes were examined in a case study for Romania. Data for this study were gathered from past research on the subject as well as other national databases on financial crime. Tax evasion, financial statement manipulation, and bankruptcy fraud to deceive financial data users are among the various types of fraud examined. Financial fraud in organizations is a continually changing topic. The findings suggest that corporate fraud must be prevented at multiple levels, including corporate governance, internal control and external regulation. This study contributes to the existing body of knowledge on corporate fraud and can be utilized as a resource by managers and regulators looking to better understand fraud and strengthen governance and internal control systems.

Key words: *financial crime, risk, internal control, fraud motivation*

1. Introduction

Corporate fraud is attracting increasing attention around the world since it has the potential to affect both the business and the economy as a whole (Awalluddin et al., 2022). In other words, it is now a global issue with major consequences for practically all companies' stakeholders (Baker et al., 2020a). Fraud has a detrimental emotional, psychological, and financial impact on companies (PwC, 2020). Misconduct and corruption within companies represent a significant threat at both macro and microeconomic levels, leading to considerable financial losses and decreased investor trust (Awalluddin et al., 2022; Dong et al., 2018; Gupta and Gupta, 2015). In particular, corporate fraud can have various negative consequences, such as eroding trust that exists between enterprises and their stakeholders, shifting the conditions that interested parties are likely to consent to, reducing company profits, increasing the likelihood of bankruptcy, and triggering delisting from national stock exchanges (Beasley et al., 1999; Fu et al., 2023; Graham et al., 2008; Hribar and Jenkins, 2004; Karpoff et al., 2008).

Survey data indicates that unethical behaviour in today's corporate environment has resulted in estimated losses of 42 billion USD (PwC, 2020). Furthermore, the average financial loss resulting from fraud in all types of entities, encompassing governments and enterprises, is approximately 5% of their total yearly income (Association of Certified Fraud Examiners - ACFE, 2022). Accounting scandals such as Enron, WorldCom, Lehman Brothers, and Satyam transformed finance and corporate governance (Alkebsee et al., 2021; Fich and Shivdasani, 2007; Kiymaz, 2020). These incidents motivated academic professionals and government officials to investigate the circumstances in an attempt to determine the causes, as understanding what led to these kinds of fraud cases will help prevent them in the future (Alkebsee et al., 2021).

The recent development of antifraud legislation demonstrates that law enforcement authorities are increasingly worried about the capacity of companies to fight corporate misconduct at all levels (Baker et al., 2020a). However, corporate fraud legislation continues to fall behind the evolving complexity of fraudulent schemes (Baker et al., 2020a). The fast growth of financial transactions, the increased adoption of computer-related tools, as well as the removal of boundaries to the free flow of money, products, and services as a consequence of globalization all resulted in a significant proliferation and modification of fraudulent strategies (Gryazeva et al., 2021). As a result, there is a need for an updated analysis of fraud types and improved awareness of this evolving problem, because it takes many forms and occurs in a variety of contexts. This study develops a framework for examining fraud by identifying the various forms it can take and the associated actions. Before developing and designing targeted anti-fraud solutions, it is necessary to accurately classify and describe the nature and types of fraudulent activities. We try to provide an upgraded classification of fraud by using two grouping strategies: the first adds two new categories to the well-known three-category classification, and the second takes a different approach, taking into account the techniques and scopes of corporate fraud. Furthermore, we conducted a case study that focused on fraud incidents in Romania from 2010 to 2020. Corporate wrongdoing can result in considerable losses for the whole financial market (Haß et al., 2015). In order to minimize these costs, businesses must identify the motivations that have contributed to corporate fraud (Alkebsee et al., 2021).

The results of the research indicate that corporate fraud can take numerous forms, which can be distinguished by the purposes, motives, and strategies employed. Financial statement manipulation, fraud related to bankruptcy and insolvency, and tax evasion are the four principal categories of fraud, based on the objective and methods used. Furthermore, computer and Internet fraud is on the rise, threatening an increasing number of companies. In the case study regarding Romania, except for tax evasion, the investigated cases of the other types of fraud examined in this study, specifically fraud associated with bankruptcy and insolvency, breaches of Company Law, corruption, and money laundering, show a negative trend in Romania over the investigated time; this could be explained by the fact that as fraud expands and becomes more complex, it goes undetected, reducing the number of instances investigated and increasing concealed fraud. Furthermore, types of fraud such as money laundering and corruption are more difficult to detect than tax evasion and bankruptcy fraud, which may be discovered through the auditing and the examination of financial records.

This research makes several contributions because it is relevant for policymakers and companies wanting to develop effective anti-corruption mechanisms, users of financial information who want to better comprehend and avoid being misled, and academics who are interested in the study of corporate crime since it analyses the complicated and evolving problem of fraud.

The remainder of the paper is organized as follows: The next section provides a theoretical background as well as an overview of past research on the examined topic. The study objectives and questions are then defined in the third section, which is followed by the methodology. Then there are the results and discussions. The paper's last section includes a summary and the conclusions.

2. Theoretical framework and prior research

Understanding the key features of corporate misconduct can help to comprehend the various kinds of fraud committed by businesses. The following subsections of the paper have two main scopes: defining corporate fraud and its motivations, and analyzing prior research about corporate fraud classification.

2.1. Fraud theories

There is no generally recognized definition of business fraud. Because fraud is complex, defining its boundaries and establishing a single universally accepted definition that incorporates the entire essence of the notion is extremely challenging (Cheliatsidou et al., 2023). According to the Institute of Internal Auditors (2019) fraud represents “any illegal act characterized by deceit, concealment, or violation of trust”. The definition of fraud in ISA 240 is “an intentional act involving the use of deception to obtain an unjust or illegal advantage” (International Federation of Accountants, 2004). Concerning business fraud, according to Achim and Borlea (2020), it is "an ensemble of illegal deeds (crimes) committed by individuals or organizations in order to produce or intermediate the production of economic and financial benefits. The economic and financial crime is specific for the businesses and could occur as business crimes such as corruption, fraud, tax evasion, money laundering, etc.".

Research about fraud has increased over the years, leading in the development of diverse theories based on the type and modalities of the fraudulent activity. These theories are constantly evolving in response to the advancement of modern technologies and the presence of more and more skilled fraud perpetrators (Soneji, 2022). These theories are illustrated in Figure 1 and include the Fraud Triangle Theory (Albrecht, 2014), the Fraud Scale Theory (Albrecht et al., 1984), the Fraud Diamond Theory (Wolfe and Hermanson, 2004), the Fraud Pentagon Theory (Crowe, 2011), and the Fraud Hexagon Theory (Vousinas, 2019).

For decades, auditors relied on the Fraud Triangle (Cressey, 1953) to identify fraudsters. This model is widely recognized and is frequently used as a fundamental conceptual framework in specialized literature (Albrecht, 2014; Dellaportas, 2013; Smith and Crumbley, 2009; Homer, 2020) and regulatory bodies (Cheliatsidou et al., 2023; Lokanan, 2018; Soneji, 2022). This theory effectively explains frauds that occur at the individual and organizational levels, in both public and private industries (Maria and Gudono, 2017; Muhtar et al., 2018; Ramamoorti, 2008; Skousen et al., 2009). Cressey developed it in the 1950s, and describes the three bases for committing fraud: opportunity, pressure, and rationalization (Cressey, 1953). After that, Albrecht (2014) coined the expression "Fraud triangle" (Cheliatsidou et al., 2023).

Opportunity consists of two components: accessibility of general data and technical expertise (Cressey, 1953). A weak or ineffective control system, industrial characteristics or company activity, failure of management supervision, and complexity in the organizational structure are all factors that can create an opportunity (Mansor and Abdullahi, 2015; Muhtar et al., 2018). Perceived opportunity implies suspected deficiencies in the control system and a low likelihood of identifying the perpetrator (Dorminey et al., 2012).

Pressure arises from a non-shareable issue that drives the motivation for committing a crime. It can take three different shapes: financial pressure, non-financial pressure, and sociopolitical pressure (Murdock, 2008). A person may consider a problem unshareable because of the social stigma linked to having such an issue. Furthermore, a high feeling of ego or pride can discourage a person from asking help or sharing a concern (Dorminey et al., 2012).

The last element is rationalization, which consists of trying to justify the deceitful actions prior to committing the fraud acts in order for the fraudsters to keep themselves within the boundaries of their ethical comfort zone (Cressey, 1950, 1953). The fraudster is avoiding being labelled as a trust violator but rather sees his or her situation as a one-of-a-kind scenario that helps them to avoid viewing themselves negatively. Employees, for example, consider it simpler to justify theft as compensation for enduring difficult working conditions (Dorminey et al., 2012; Hollinger and Clark, 1983).

The Fraud Scale is one of the most noteworthy revisions of the Fraud Triangle Theory. This approach includes the Fraud Triangle's pressure and opportunity components, but considers personal integrity instead of rationalization (Albrecht et al., 1984). However, the notions of rationalization and personal integrity are directly linked, because a person with high personal integrity would not easily justify unethical behaviour; in other words, they are both a matter of personal morality (Kagias et al., 2022). As the term "scale" suggests, this theory "weighs" the likelihood of fraudulent activities, with high pressure, opportunity, and low integrity indicating a higher likelihood of fraud (Albrecht et al., 1984).

Wolfe and Hermanson (2004) developed another model based on the Fraud Triangle, suggesting that adding a fourth factor, capability, can improve fraud prevention and detection. According to the Fraud Diamond Model, even when pressure, opportunity, and rationalization occur, fraud is unlikely to happen if the fourth factor, "capacity," is missing. Consequently, the manifestation of the fraud will be impossible without the fraudster's capability, which refers to having the knowledge and ability to perpetrate the fraudulent activity (Soneji, 2022). It takes a skilled person to spot and take advantage on an opportunity.

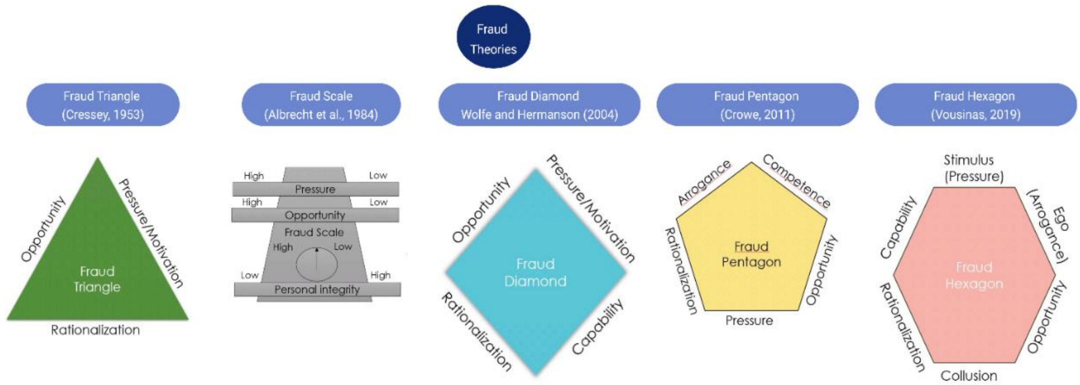
Therefore, pressure and rationalization can push individuals to commit fraud, but they must have the ability to identify and take advantage of an opportunity in order to get the greatest benefits (Avortri and Agbanyo, 2020). Due to a lack of expertise in concealment, not all people with motivation, opportunities, and realization can conduct fraud (Saluja et al., 2022).

Crowe's study from 2011 additionally expanded the Fraud Triangle Theory by adding "competence" and "arrogance" (Avortri and Agbanyo, 2020; Crowe, 2011; Muhsin et al., 2018). From another perspective, this model substituted the capability outlined in the Diamond Model with competence and included the arrogance element. Competence is defined as the ability to comprehend and have knowledge of how the company operates in order to identify the weaknesses in its control system. The notion of "arrogance" is related to a person who believes he or she is above any control or organizational policy (Dias, 2021).

Vousinas (2019) proposed an updated fraud theory known as the fraud hexagon. This theory adds collusion to the fraud Pentagon. Collusion is described as a deceptive agreement among multiple individuals in which one side seeks to take advantage of the activities of the other for unlawful purposes such as manipulating other people and getting what they want (Ghaisani and Triyono, 2022; Sari et al., 2022). Collusion agreements may involve offering particular resources, such as money, products, or different tools to facilitate the job. Furthermore, collusion is illegal because it involves everything necessary to achieve personal or organizational gain (Achmad et al., 2022; Ghaisani and Triyono, 2022).

The existence of all these theories, as well as the necessity to develop new ones, indicates the complex and evolving nature of fraud, which can vary and have different characteristics from year to year, necessitating the ongoing updating of studies about this topic.

Figure 1. Fraud Theories

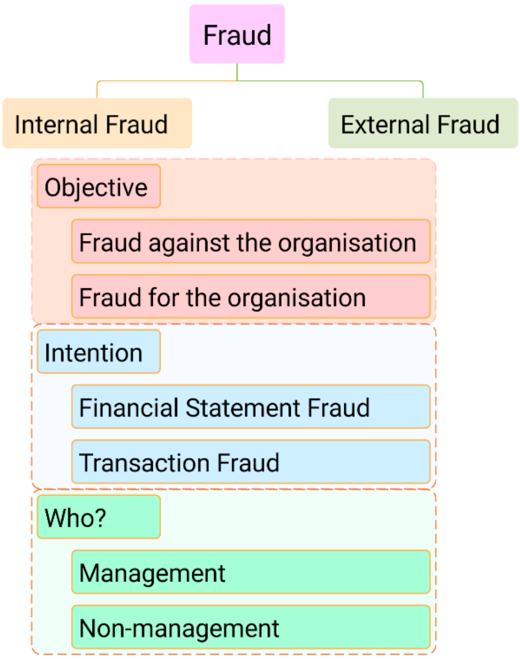


Source: own representation based on the literature

2.2. Types of fraud

Numerous professional organizations and researchers developed various fraud classification models based on different characteristics. The categorization of fraud into internal and external (Figure 2) is the simplest grouping which offers a general view (Ahmad et al., 2020; Bologna and Lindquist, 1995; Mardani and Shahriari, 2017). External fraud, as the name indicates, is done by an individual outside the business, such as suppliers or contractors, whereas internal fraud is conducted by someone within the company, including workers, managers, executives, and business owners (Ahmad et al., 2020). Internal fraud includes both financial statement and transaction fraud (Ahmad et al., 2020). In financial statement fraud the deceitful individual, who is usually the manager, manipulates financial information in order to obtain a particular gain. In transaction fraud, the fraudster aims to steal or embezzle assets from the company. It includes bribes, utilizing corporate assets for personal advantage, and payroll fraud (Mardani and Shahriari, 2017). Occupational fraud can be further classified as fraud against or in support of the company, as well as fraud committed by managers versus others in the company (Ahmad et al., 2020).

Figure 2. Internal and external fraud



Source: own representation based on the literature

The Association of Certified Fraud Examiners (2016) constructed a more complex classification of fraud (Figure 3), dividing it into three major categories: corruption, misappropriation of assets, and fraud involving financial statements. Since 1996, the ACFE has questioned randomly selected persons from the private sector, government, and public accounting firms regarding the specifics of fraud cases investigated (Greenlee et al., 2007). The Occupational Fraud Report to the Nations issued in 2022 shows that corruption, which encompasses bribery, conflicts of interest, and extortion, scores midway in terms of frequency and loss. This type of scam occurs in 50% of incidents and results in an average loss of USD 150,000. Furthermore, asset theft, which occurs when an employee steals or mishandles the company's resources, is the most common type of fraud in enterprises, accounting for 86% of incidents. However, the average sum misappropriated in such situations is less than what is lost in other types of fraud, indicating that it generates the lowest average loss, estimated at around USD 100,000 per incident. Individuals at various levels of the company, from workers to managers and top executives, can be involved in the theft of assets (Chorvatovičová and Saxunová, 2016). Financial statement fraud schemes are defined as an individual's or a group's deliberate attempt to achieve an illegal financial benefit or to represent financial information in a deceptive manner (Chorvatovičová and Saxunová, 2016). This is the most uncommon form of fraud, comprising 9% of all schemes, but it is the most expensive, costing USD 593,000 (ACFE, 2022). Despite the complexity of this classification, some types of fraud are still not considered; thus, a more inclusive classification may be useful.

3. Research questions and objectives

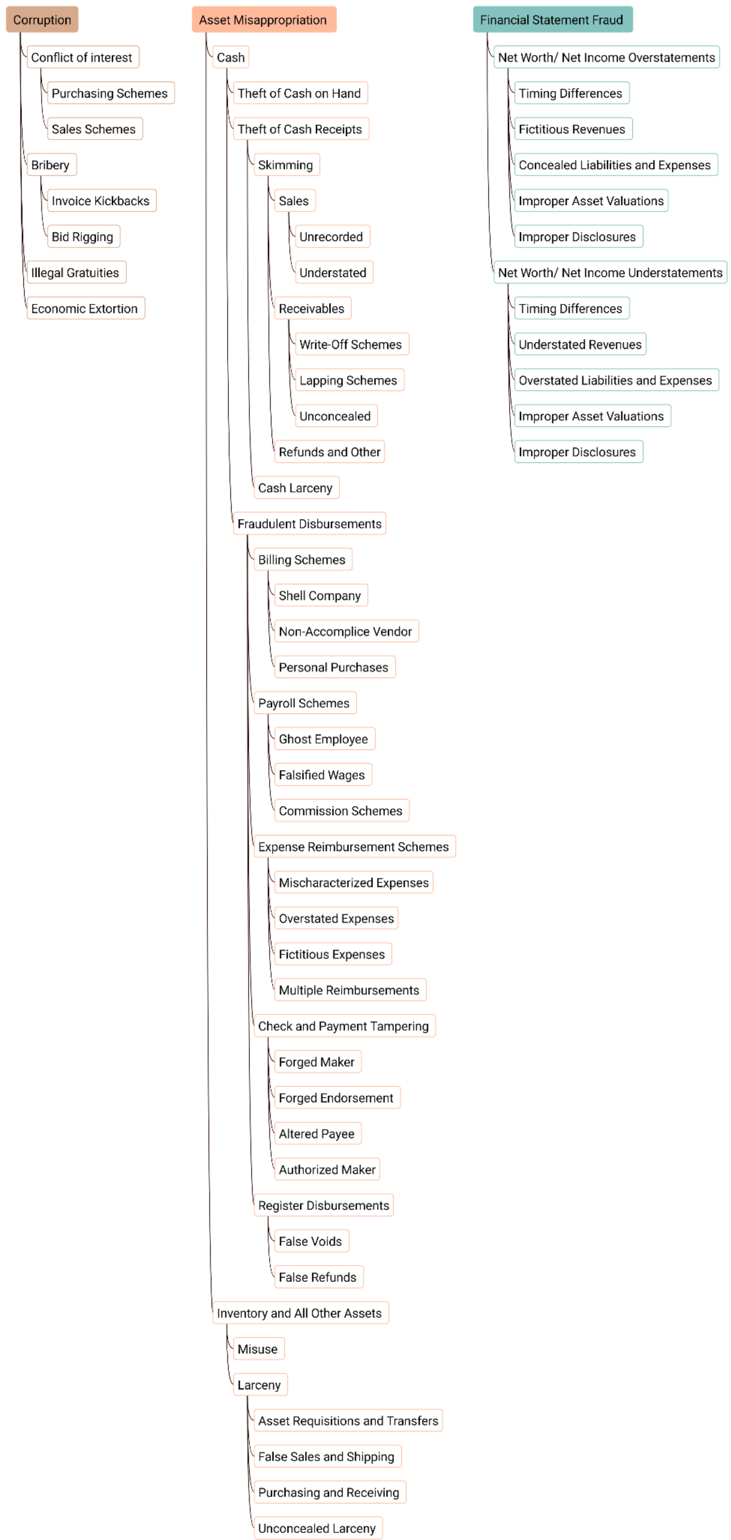
The primary goal of this study is to provide an in-depth overview of the many types of corporate fraud. For the achievement of this purpose, the following objectives have been established:

- To develop a new categorization of business fraud based on the current advances in technology;
- In order to perform a more thorough analysis, create an entirely novel classification that takes into consideration the scopes and the methods employed;
- To analyze actual cases.

As a result, our research answers to the following questions:

1. What are the various forms of business fraud?
2. What are the most frequently used techniques of corporate fraud?
3. How is the evolution of fraud in Romanian companies?

Figure 3. The Fraud Tree



Source: Own representation based on Association of Certified Fraud Examiners (2016)

4. Methodology

The research is divided into two parts: the first involves the construction of two fraud classification schemes, and the second contains a case study.

For the first part of the study a detailed analysis of existing studies was performed by taking into account also the motivations and dynamics of financial scandals. The first classification system was constructed by studying and analyzing various corporate fraud studies while also taking into account the development of technology, whereas the second was established by focusing on the reasons and techniques used to commit fraud based on the literature.

The case study focuses on fraud investigations conducted by Romanian police from 2010 to 2020.

The types of corporate fraud that have been examined are as follows:

- Bankruptcy and insolvency fraud;
- company law violations;
- corruption;
- money laundering;
- tax evasion.

The combination of the review of the existing literature on the subject under examination and the presentation of the real-life developments of specific cases of corporate frauds makes the study complete and provides a more thorough and comprehensive analysis.

5. Results and discussions

5.1. Classification of corporate fraud

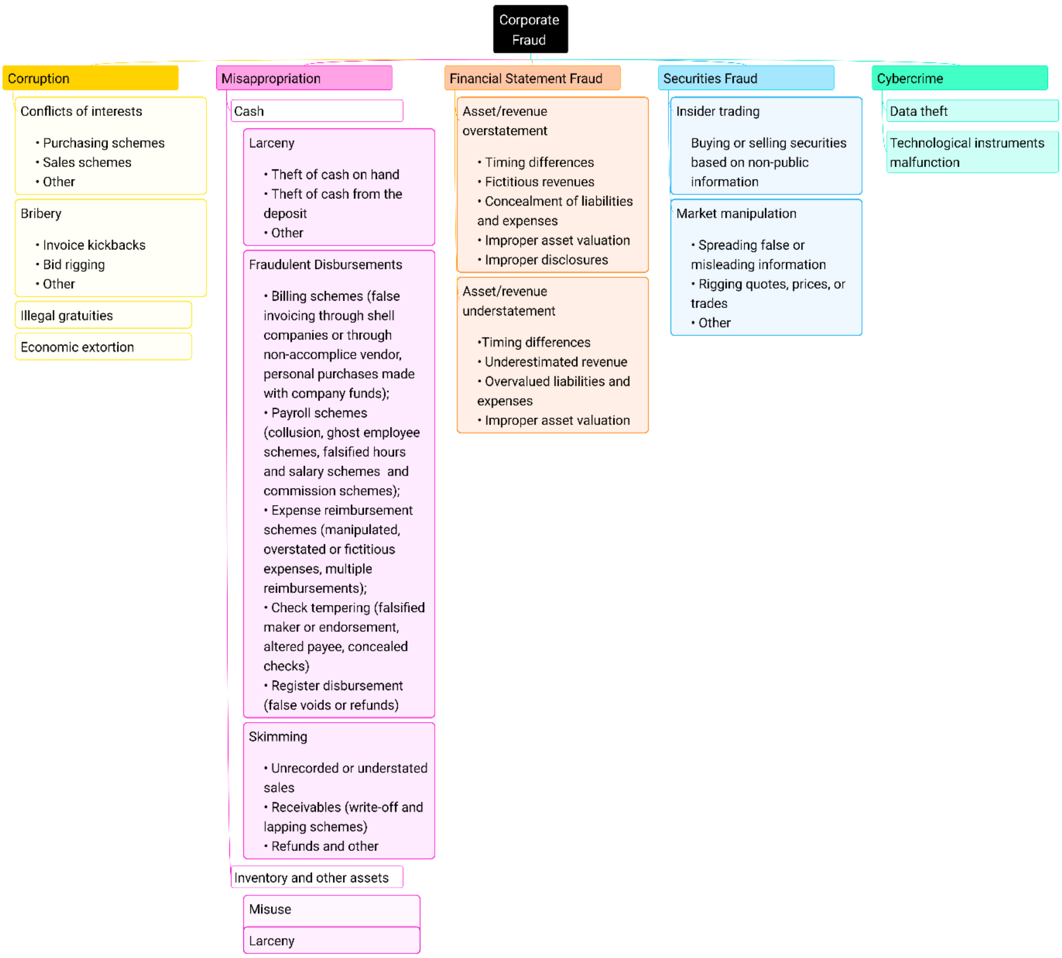
The first classification was developed starting with the classifications provided by the ACFE (2016) and Wells (2017). Besides corruption, misappropriation of assets, and financial statement fraud, we identified two other types of corporate fraud: securities fraud and cyber fraud (Figure 4).

The technological evolution of society has generated novel financial tools for payments, transfers, and other types of financial transactions, and fenders are taking advantage of those technologies to conduct extortion, theft, money laundering, and financing illicit activities (Nikkel, 2020; Cotoc et al. 2020; Achim et al. 2021). Advancements in technology, including mobile internet, cloud computing, and advanced robotics, have led to the rise of cybercrime and online fraud among corporations (Șcheau et al. 2023). Moreover, as the progress continues, these kinds of crimes are becoming increasingly complex (Dumitrescu and Marica, 2019). Consequently, individuals, organizations, and governments are confronted with an extensive variety of cyber risks that vary from data theft to ransomware (Mapimele and Bokang, 2019). Technological advancement and globalization demand rapid adaptation to changes in the global corporate environment in order to prosper, as well as to successfully fight cybercrime. As a result, cybersecurity must be a priority for businesses and the government (Dumitrescu and Marica, 2019). According to Okpa et al.

(2020), phishing is on the rise, and companies have lost a fortune as a consequence of phishers' operations. Companies lose sales and competitive advantages because of cyberfraud, which damage the trust of customers, among other things. It is advised that business entities invest more time and money in guiding employees and customers on how to avoid cyber fraud (Okpa et al., 2020).

Another kind of business fraud is securities fraud that involves falsifying accounting records, fabricating assets, making illegal guarantees, and manipulating share prices. This type of fraud may lead to a decrease in firm value and trust among investors (Cumming et al., 2015a; Cumming et al., 2015b; Shi et al., 2020;). Insider trading is among the most widespread fraudulent trading methods in the financial markets. Insiders' informational advantage results in a greater amount of trades than anticipated on insider trading periods. Insider trading volume constitutes an important indicator of information asymmetry (Meulbroek, 1992; Esen, 2020).

Figure 4. Fraud classification based on the literature



Source: own representation based on the literature

Regarding the classification of corporate fraud by methods and scope (Figure 5), we identified four groups: financial statements manipulation that can be done through earnings management techniques; fraud related to bankruptcy and insolvency, tax evasion, and cyber fraud.

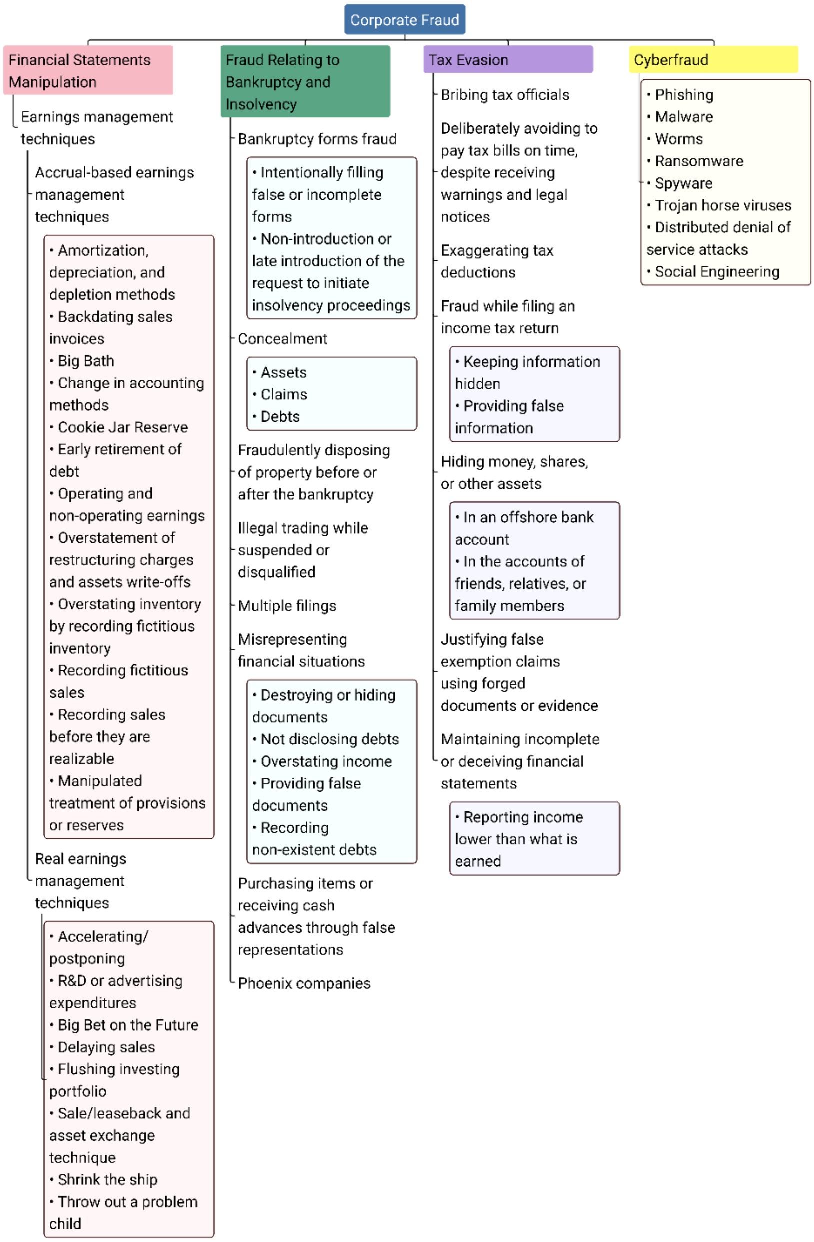
The primary objective of earnings management is to achieve specific goals by manipulating relevant accounting processes in relation to generally accepted accounting standards, in order to make earnings displayed on financial reports meet established targets that can relate to the requirements of management or other persons or to operational objectives (Strakova, 2021). According to Hamid et al. (2012) altruistic motivation, speculative determination, and pressure from affiliated parties are the three basic forms of motivation that usually lead to earnings management. In terms of method, financial statement manipulation can be done using accrual-based earnings management strategies and real earnings management techniques.

Bankruptcy fraud can be defined as a scenario in which a firm purposefully misleads creditors, investors, and, eventually, the court (Adamson and Associates, 2023). Bankruptcy and insolvency fraud can take many forms, including false or incomplete bankruptcy forms, concealment, fraudulent disposing of property, illegal trade, misrepresenting financial situations, and others.

Tax evasion involves the unlawful reduction or nonpayment of taxes by individuals or corporations by underestimating or concealing income or earnings, or by overstating or inventing false deductions or costs (Shehata et al., 2022). This type of fraud can be done also by bribing tax officials, hiding money, shares, or other assets, and deliberately avoiding paying tax bills on time.

The last type of fraud identified is cyber fraud, which may be accomplished through a variety of means and by spreading various types of viruses such as Malware, Worms, Ransomware, and others.

Figure 5. Classification of corporate fraud by methods and scope



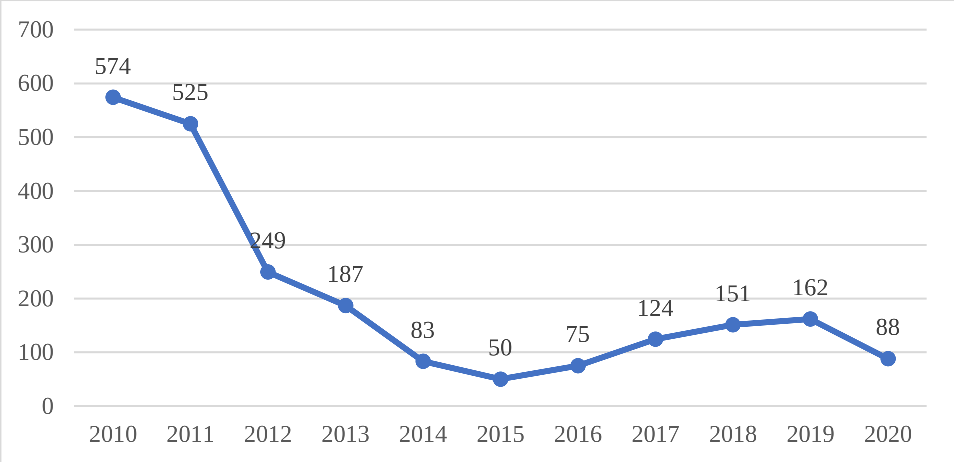
Source: own representation based on the literature

5.2. Case study

The graphs below illustrate cases of various types of fraud investigated by Romanian Police.

For the time studied, there was a downward trend in fraud investigations related to bankruptcy and insolvency, with the maximum number of instances in 2010 (574 cases) and the lowest in 2015 (55 cases) (Figure 6). Then there was a slight increase until 2019, when there have been 162 cases, followed by a drop in 2020, when there were 88 cases. The decrease in the number of cases can be attributed to legislative changes that occurred throughout the years. Company insolvency legislation has a direct connection with the country's economic structure, progress, and public perception of "failing a business" (Cepec, 2014). Low fiscal flexibility is associated with reduced levels of corporate insolvency (Muntean et al., 2019). Insolvency administration constitutes an important part in the establishment of an effective bankruptcy system, and a regulatory framework that allows for out-of-court procedures as an alternative to conventional bankruptcy proceedings is needed (Gómez and Sánchez, 2018).

Figure 6. Investigated cases of fraud related to bankruptcy and insolvency by the Romanian Police during the period 2010-2020



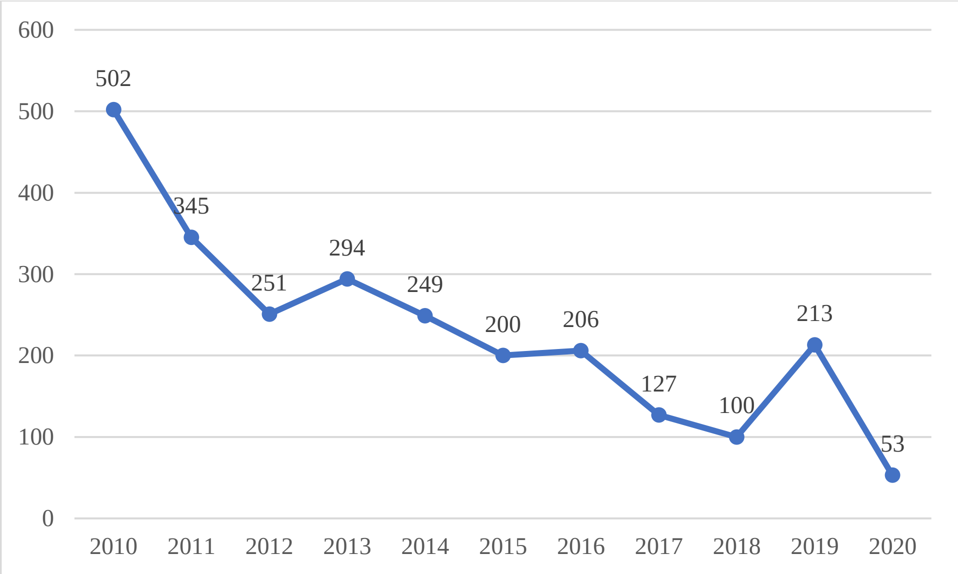
Source: own processing based on fincrime.net

Regarding violations of Romanian Law No. 31 of November 16, 1990 on Companies, as shown in Figure 7 the number of investigations has reduced from 502 in 2010 to 53 in 2020. The reduction in the number of cases involving violations of this legislation might be linked to legislative changes over time, such as the revision of various requirements (for instance, the simplification of legal requirements applied to the formation and functioning of businesses and the digitalization of communications with public bodies) and the introduction of new sanctions.

Regarding corruption (Figure 8), the number of incidents declined from 2457 in 2015 to 653 cases in 2020, with two years of increased instances in 2013 and 2015. Many factors can contribute to a decrease in corrupt behaviour, including the creation of international anti-corruption standards, frequent employee training, (Hauser, 2019) and the development of innovation orientation in companies (Karmann et al., 2016).

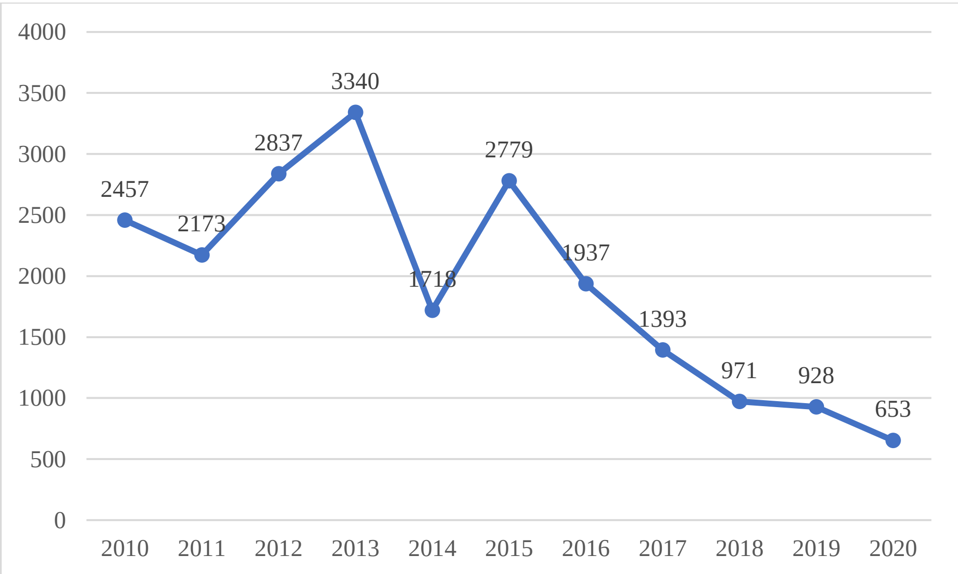
During the investigation period, decrees alternated with phases of increased money laundering activity can be observed (Figure 9). It can be seen that in the first year of research, 2457 cases were examined, while in the last year of research, the cases were decreased to 653. However, because this form of fraud is extremely complicated, and money laundering schemes are growing more sophisticated and harder to detect, this drop could be attributed to fraudsters' adaption to the economic environment, as well as an increase in unreported cases. Another factor contributing reduce money laundering is the increasing popularity of internet payments. Customer verification, correspondent banking, and new technology may all contribute to prevent money laundering (Jaffery and Mughal, 2020).

Figure 7. Investigated cases of breaches of Company Law in Romania during the period 2010-2020



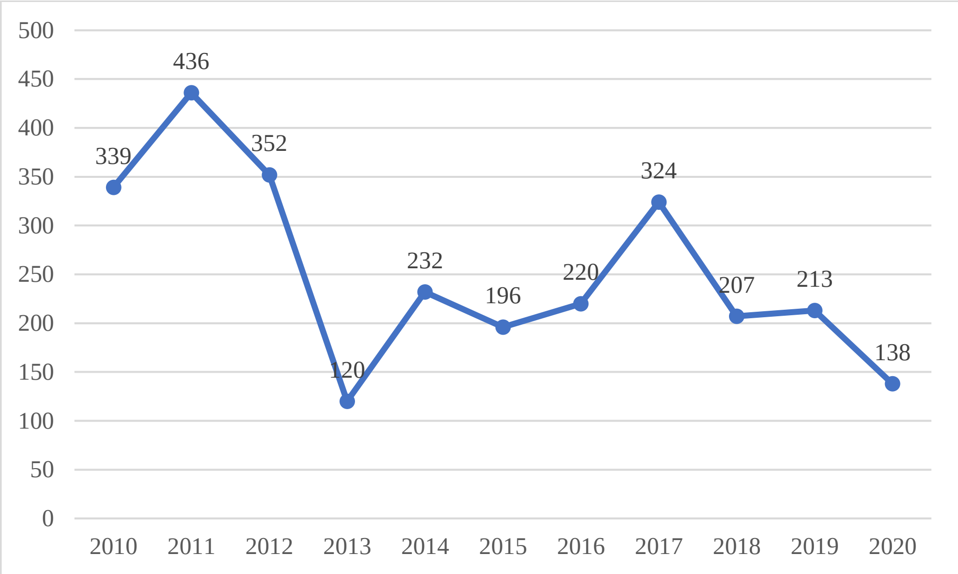
Source: own processing based on fincrime.net

Figure 8. Corruption investigated cases by the Romanian police during the period 2010-2020



Source: own processing based on fincrime.net

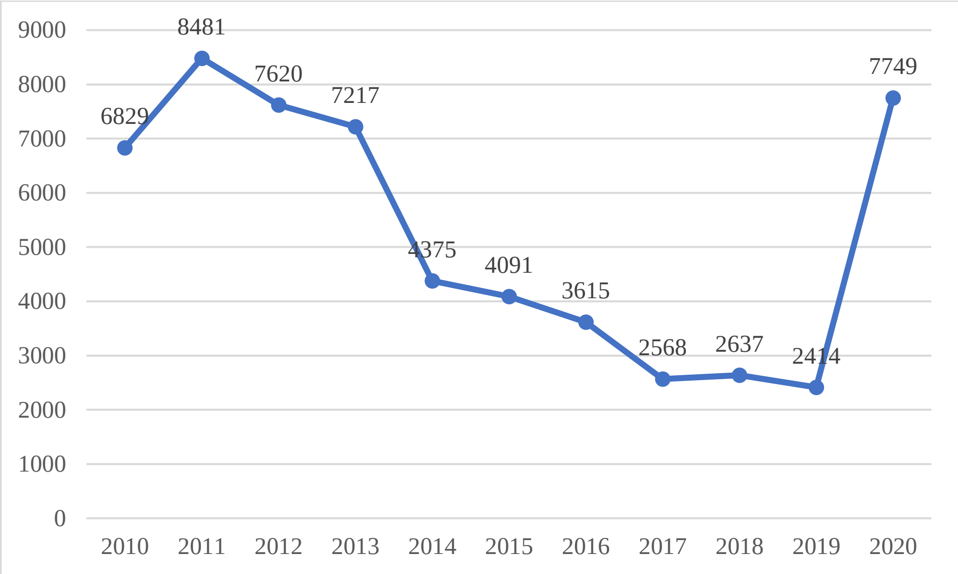
Figure 9. Cases of money laundering investigated by the Romanian police during the period 2010-2020



Source: own processing based on fincrime.net

Figure 10 shows the evolution of the number of tax evasion investigated cases in Romania during the period 2010-2020. Tax evasion is the only category of fraud that has more cases investigated in 2020 than in 2010. Tax evasion cases went up from 2010 to 2011, then decreased until 2019 from 8481 to 2434, after that, in 2020 there was another increase. It's worth noting that this happened during the global COVID-19 crisis. COVID-19 containment measures have had a substantial impact on corporations, leading them to experience difficulties to sell existing inventory, block trade credit, and suffer income decreases. Furthermore, businesses were obliged to face increased information risk, risk of bankruptcy, and a deterioration of business credibility (Baker et al., 2020b; Halling et al., 2020; Liu et al., 2021). During the epidemic, enterprises depended on internal resources to manage liquidity due to economic challenges and high external financing costs (Holmström and Tirole, 2000). Cash tax savings are a key internal source of funding, and as financial limitations tighten during COVID-19, enterprises were more inclined to save extra money by not paying taxes (Athira and Ramesh, 2023). Financially restricted businesses are more prone to engage in tax evasion activities because it helps them deal with financing issues resulting from financial constraints (Alm et al., 2019). Low morale, when it comes to taxes among firm executives, dissatisfaction with tax administration, and an increasing number of trade restrictions are all major factors that influence the likelihood of tax fraud (Nikulin, 2020). Small businesses with a higher level of trust in the government and that have optimistic growth expectations appear to have higher tax morale (Moerenhout and Yang, 2022).

Figure 10. Tax evasion investigated cases in Romania during the period 2010-2020



Source: own processing based on fincrime.net

6. Conclusions

To summarize, the first part of the research investigated the various forms of business fraud and the most commonly used techniques used for committing it by developing two fraud classification systems, the first more general, beginning with the classifications provided by the ACFE (2016) and Wells (2017), and the second considering methods and scope. In this section of the study, we observed that corporate fraud can take many forms. The first classification identified five types of corporate fraud: corruption, misappropriation, financial statement fraud, securities fraud, and cybercrime; the second classification identified four groups: financial statement manipulation through earnings management techniques; bankruptcy and insolvency fraud, tax evasion, and cyber fraud.

Concerning the case study for Romania, that examines the evolution of fraud in Romanian companies from 2010 to 2020, the investigated cases of bankruptcy and insolvency fraud, company law breaches, corruption, and money laundering show a decreasing tendency. This downward tendency can be explained in two ways. On the one hand, corporate crime laws are constantly evolving both nationally and internationally (for example, the issue of new standards for the prevention of money laundering and corruption, the Whistleblowing EU Directive, and the modifications of Romanian Law No. 31 of November 16, 1990 on Companies) and these changes are beneficial and are gradually accomplishing their goal. On the other hand, this declining tendency can be attributed to the growing complexity of fraud, which reduces the number of cases investigated while increasing hidden fraud.

This study is limited by the geographical area for which the data was accessed, which were only available for Romania, but also by the measuring methods utilized, which were confined only to cases of fraud confirmed and investigated, undiscovered cases not being included.

As future research directions, it would be interesting to expand the study to include other countries and estimate the amount of undetected corporate fraud.

This research is relevant for policymakers, companies, users of financial statements, and academics interested in the study of corporate crime since it examines the complex and developing problem of fraud. More specifically, this study suggests that preventing financial fraud requires a multi-level strategy that includes corporate governance, internal control and external regulations. Detecting financial fraud in companies timely has numerous benefits, including assisting investors in avoiding risks, avoiding long-term problems for businesses, and increasing general trust in the organization. A classification of the techniques used by fraudsters can help auditors and financial stakeholders identify some red flags that may indicate the presence of fraud.

Acknowledgment: This work was supported by a grant of the Romanian Ministry of Education and Research, CNCS - UEFISCDI, project number PN-III-P4-ID-PCE-2020-2174, within PNCDI III.

7. References

Achim, M. V., & Borlea, S. N. (2020). *Economic and Financial Crime, Corruption, shadow economy, and money laundering*. Springer Nature Switzerland AG. doi:https://doi.org/10.1007/978-3-030-51780-9

Achim, M.V., Borlea, S.N. & Văidean, V.L. (2021). Does technology matter for combating economic and financial crime? A panel data study. *Technological and economic development of economy* 27 (1), 223-261

Achmad, T., Ghozali, I., & Pamungkas, I. D. (2022). Hexagon fraud: Detection of fraudulent financial reporting in state-owned enterprises Indonesia. *Economies*, 10(1), 1-16. doi:10.3390/economies10010013.

Adamson, J., & Adamson & Associates. (2023). Retrieved 06 15, 2023, from https://www.adamsontrustee.com/what-is-bankruptcy-fraud-understanding-bankruptcy-laws-and-the-criminal-code-of-canada/

Ahmad, A. H., Masri, R., Zeh, C. M., Shamsudin, M. F., & Fauzi, R. U. (2020). The impact of digitalization on occupational fraud opportunity in telecommunication industry: a strategic review. *PalArch's Journal of Archaeology of Egypt/Egyptology*.

Albrecht, W. S. (2014). Iconic fraud triangle endures: Metaphor diagram helps everybody understand fraud. *Fraud Magazine*, 1-7.

Albrecht, W. S., Howe, K. R., & Romney, M. B. (1984). *Deterring fraud: the internal auditor's perspective*. Institute of Internal Auditors.

Alkebsee, R., TIAN, G., Garefalakis, A., Koutoupis, A., & Kyriakogkonas, P. (2021). Does Independent Director's Cash Compensation Matter? Evidence from Corporate Fraud. *Evidence from Corporate Fraud*, 23(4), 977–996. doi:https://doi.org/10.3846/jbem.2022.16217

Alm, J., Liu, Y., & Zhang, K. (2019). Financial constraints and firm tax evasion. *International Tax and Public Finance*, 26(1), 71-102. doi:10.1007/s10797-018-9502-7

Association of Certified Fraud Examiners (ACFE). (2016). *6 Report to the Nations on Occupational Fraud and Abuse*. Retrieved 05 27, 2023, from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.acfe.com/fraud-resources/fraud-risk-tools---coso/-/media/51FB0E7892E24FC392ED325FE0A42C2A.ashx

Association of Certified Fraud Examiners (ACFE). (2022). *Occupational Fraud 2022: A Report to the Nations*. Retrieved 05 20, 2023, from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://acfepublic.s3.us-west-2.amazonaws.com/2022+Report+to+the+Nations.pdf

Athira, A., & Ramesh, V. K. (2023). COVID-19 and corporate tax avoidance: International evidence. *International Business Review*, 32(4), 102143. https://doi.org/10.1016/j.ibusrev.2023.102143

Avortri, C., & Agbanyo, R. (2020). Determinants of management fraud in the banking sector of Ghana: the perspective of the diamond fraud theory. *Journal of Financial Crime*, 28(1), 142-155. doi: https://doi.org/10.1108/JFC-06-2020-0102

Awalluddin, M. A., Nooriani, T. I., & Maznorbalia, A. S. (2022). The relationship between perceived pressure, perceived opportunity, perceived rationalization and fraud tendency among employees: A study from the people's trust in Malaysia. *Studies in Business and Economics*, 17(2), 23-43. doi:10.2478/sbe-2022-0023

Baker, H. K., Purda, L., & Saadi, S. (2020a). Corporate fraud exposed: An overview. In H. K. Baker, L. Purda-Heeler, & S. Saadi, *Corporate Fraud Exposed* (pp. 3-18). Emerald Publishing Limited. doi: https://doi.org/10.1108/978-1-78973-417-120201002

Baker, S. R., Bloom, N., Davis, S. J., & Terry, S. J. (2020b). Covid-induced economic uncertainty. *National Bureau of Economic Research*.

Beasley, M. S., Carcello, J. V., Hermanson, D. R., & others. (1999). *Fraudulent financial reporting: 1987-1997: an analysis of US public companies*. Retrieved 05 15, 2023, from https://egrove.olemiss.edu/aicpa_assoc/249/

Bologna, G. J., & Lindquist, R. J. (1995*). Fraud auditing and forensic accounting: new tools and techniques*. New Jersey: John Wiley & Sons.

Cepec, J. (2014). Corporate insolvency law–a necessity of market economy, lessons from history and Slovenia. *Acta Histriae*, 22(3), 765-790.

Cheliatsidou, A., Sariannidis, N., Garefalakis, A., Azibi, J., & Kagias, P. (2023). The international fraud triangle. *Journal of Money Laundering Control*, 26(1), 106-132. doi:https://doi.org/10.1108/JMLC-09-2021-0103

Chorvatovičová, L., & Saxunová, D. (2016). Usefulness of financial statements and annual reports in the process of accounting fraud detection. *Managing Global Changes: Proceedings of the joint international conference*, 233-247.

Cressey, D. R. (1950). The criminal violation of financial trust. *American sociological review*, 15(6), 738-743.

Cressey, D. R. (1953). Other people's money; a study of the social psychology of embezzlement. *Free Press*.

Cotoc (Bodescu), C.N., Șcheau, M.C. & Achim, M.V. (2020). Anti-money, 19th RSEP International Economics, Finance & Business Conference – Virtual/Online 1-2 December 2020, Anglo-American University, Prague, Czechia, 16-28.

Crowe, H. (2011). Why The Fraud Triangle Is No Longer Enough. *Horwath, Crowe*.

Cumming, D., Dannhauser, R., & Johan, S. (2015a). Financial market misconduct and agency conflicts: A synthesis and future directions. *Journal of Corporate Finance*, 34, 150-168. doi:https://doi.org/10.1016/j.jcorpfin.2015.07.016

Cumming, D., Leung, T. Y., & Rui, O. (2015b). Gender diversity and securities fraud. *Academy of Management Journal*, 58, 1572–1593. doi:https://doi.org/10.5465/amj.2013.0750

Dellaportas, S. (2013). Conversations with inmate accountants: motivation, opportunity and the fraud triangle. *Accounting Forum*, 37(1), 29-39.

Dias, A. A. (2021). Risks and fraud: A theoretical approach. *Revista Perspectiva* Empresarial, 8(2), 7-2. doi:https://doi.org/10.16967/23898186.712

Dong, W., Liao, S., & Zhang, Z. (2018). Leveraging Financial Social Media Data for Corporate Fraud Detection. *Journal of Management Information Systems*, 35(2), 461–487. doi:https://doi.org/10.1080/07421222.2018.1451954

Dorminey, J., Fleming, A. S., Kranacher, M.-J., & Riley Jr, R. A. (2012). The evolution of fraud theory. *Issues in accounting education*, 27(2), 555-579. doi:10.2308/iace-50131

Dorminey, J., Fleming, A. S., Kranacher, M.-J., & Riley Jr, R. A. (2012). The evolution of fraud theory. *Issues in accounting education*, 27(2), 555-579. doi:https://doi.org/10.2308/iace-50131

Dumitrescu, M. S., & Marica, M. E. (2019). Cybercrime in Digital Era. *New Trends in Sustainable Business and Consumption.*

Esen, M. F. (2020). A Robust Multivariate Outlier Detection Method for Detection of Securities Fraud. *International Journal of Business Analytics (IJBAN)*, 7(3), 12-29.

Fich, E. M., & Shivdasani, A. (2007). Financial fraud, director reputation, and shareholder wealth. *Journal of Financial Economics*, 86(2), 306–336. doi:https://doi.org/10.1016/j.jfineco.2006.05.012

FinCrime.net. (n.d.). *FinCrime*. Retrieved 05 20, 2023, from https://fincrime.net/en/

Fu, C., Deng, X., & Tang, H. (2023). Who cares about corporate fraud? Evidence from cross-border mergers and acquisitions of Chinese companies. *Review of Quantitative Finance and Accounting*, 60(2), 747–789. doi:https://doi.org/10.1007/s11156-022-01111-6

Ghaisani, H. M., & Triyono, A. D. (2022). Analysis of Financial Statement Fraud: The Vousinas Fraud Hexagon Model Approach and the Audit Committe as Moderating Variable. *The International Journal of Business Management and Technology*, 6(6).

Gómez, M. G., & Sánchez, R. V. (2018). Bankruptcy reforms in the midst of the Great Recession: The Spanish experience. *International Review of Law and Economics*, 71-95.

Graham, J. R., Li, S., & Qiu, J. (2008). Corporate Misreporting and Bank Loan Contracting. *Journal of Financial Economics*, 89(1), 44-61. doi:https://doi.org/10.1016/j.jfineco.2007.08.005

Greenlee, J., Fischer, M., Gordon, T., & Keating, E. (2007). An investigation of fraud in nonprofit organizations: Occurrences and deterrents. *Nonprofit and voluntary sector quarterly*, 36(4), 676-694. doi:10.1177/0899764007300407

Gryazeva, E., Mayorova, O., Malchikova, N., Nemkova, M., & Paravina, M. (2021). International financial fraud: economic and psychological aspects, classification and ways of minimization. *Economic Annals-XXI*, 189, 15-25. doi:https://doi.org/10.21003/ea.V189-02

Gupta, P., & Gupta, S. (2015). Corporate frauds in India – perceptions and emerging issues. *Journal of Financial Crime*, 22(1), 79-103. doi:https://doi.org/10.1108/JFC-07-2013-0045

Halling, M., Yu, J., & Zechner, J. (2020). How did COVID-19 affect firms' access to public capital markets? *The Review of Corporate Finance Studies*, 9(3), 501–533

Hamid, F., Hashim, H. A., & Salleh, Z. (2012). Motivation for earnings management among auditors in Malaysia. *Procedia-Social and Behavioral Sciences*, 65, 239-246.

Haß, L. H., Müller, M. A., & Vergauwe, S. (2015). Tournament incentives and corporate fraud. *Journal of Corporate Finance*, 34, 251-267. doi:https://doi.org/10.1016/j.jcorpfin.2015.07.008

Hauser, C. (2019). Fighting against corruption: does anti-corruption training make any difference? *Journal of Business Ethics*, 159, 281-299.

Hollinger, R. C., & Clark, J. P. (1983). *Theft by Employees*. Lexington Books Lexington, MA.

Holmström, B., & Tirole, J. (2000). Liquidity and risk management. *Journal of Money, Credit and Banking*, 295–319.

Homer, E. M. (2020). Testing the fraud triangle: a systematic review. *Journal of Financial Crime*, 27(1), 172-187. doi: https://doi.org/10.1108/JFC-12-2018-0136

Hribar, P., & Jenkins, N. T. (2004). The Effect of Accounting Restatements on Earnings Revisions and The Estimated Cost of Capital. *Review of Accounting Studies* 9, 337-356. doi:https://doi.org/10.1023/B:RAST.0000028194.11371.42

International Federation of Accountants. (2004). *International standard on auditing 240 the auditor's responsibilities relating to fraud in an audit of financial statements*. Retrieved 05 23, 2023, from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ifac.org/_flysystem/azure-private/publications/files/A012%202013%20IAASB%20Handbook%20ISA%20240.pdf

Jaffery, I. H., & Mughal, R. A. (2020). Money-laundering risk and preventive measures in Pakistan. *Journal of Money Laundering Control*, 23(3), 699-714. doi:10.1108/JMLC-02-2020-0016

Kagias, P., Cheliatsidou, A., Garefalakis, A., Azibi, J., & Sariannidis, N. (2022). The fraud triangle-an alternative approach. *Journal of Financial Crime*, 29(3), 908-924. doi:https://doi.org/10.1108/JFC-07-2021-0159

Karmann, T., Mauer, R., Flatten, T. C., & Brettel, M. (2016). Entrepreneurial orientation and corruption. *Journal of Business Ethics*, 133(2), 223-234. doi:10.1007/s10551-014-2305-6

Karpoff, J. M., Lee, D. S., & Martin, G. S. (2008). The Cost to Firms of Cooking the Books. *Journal of Financial and Quantitative Analysis*, 43(3), 581-611.

Kiymaz, H. (2020). Types of corporate fraud. *Corporate Fraud Exposed*. Emerald Publishing Limited.

Liu, Y., Qiu, B., & Wang, T. (2021). Debt rollover risk, credit default swap spread and stock returns: Evidence from the COVID-19 crisis. *Journal of Financial Stability*, 53, 100855.

Lokanan, M. (2018). Informing the fraud triangle: insights from differential association theory. *Journal of Theoretical Accounting Research*, 14(1).

Mansor, N., & Abdullahi, R. (2015). Fraud triangle theory and fraud diamond theory. Understanding the convergent and divergent for future research. *International Journal of Academic Research in Accounting, Finance and Management Science*, 1(4), 38-45. doi:10.6007/IJARAFMS/v5-i4/1823

Mapimele, F., & Bokang, C. M. (2019). The cybercrime combating platform. *14th International Conference on Cyber Warfare and Security*, 237-242.

Mardani, S., & Shahriari, H. (2017). Fraud detection in process-aware information systems using process mining. *Proc. 21st Century, E-Syst. Theno*,, 307-344.

Maria, E., & Gudono. (2017). Empirical test of fraud triangle theory on local government (evidence from Indonesia). *International Journal of Applied Business and Economic Research*, 233-248.

Meulbroek, L. (1992). An empirical analysis of illegal insider trading. *Journal of Finance*, 47, 1661-1699.

Moerenhout, T., & Yang, J. (2022). Tax Evasion Attitudes of Small Firms in Low- and Middle-income Countries: Evidence from Nigeria. *Development Policy Review*, 40(6). doi:10.1111/dpr.12616

Muhsin, K., Kardoyo, M., & Nurkhin, A. (2018). What determinants of academic fraud behavior? From fraud triangle to fraud pentagon perspective. *KnE Social Sciences*, 3(10), 154.

Muhtar, Sutaryo, & Sriyanto. (2018). Corruption in Indonesian local government: Study on triangle fraud theory. *International Journal of Business and Society*, 19(2), 536-552.

Muntean, N., Creţu, R. C., & Muntean, I. (2019). The impact of fiscal policies on corporate insolvencies in the european countries. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, 19(2), 263-268.

Murdock, H. (2008). The three dimensions of fraud: auditors should understand the needs, opportunities, and justifications that lead individuals to commit fraudulent acts. *Internal Auditor*, 65(4), 81-83.

Nikkel, B. (2020). Fintech forensics: Criminal investigation and digital evidence in financial technologies. *Forensic Science International: Digital Investigation*. doi:https://doi.org/10.1016/j.fsidi.2020.200908

Nikulin, D. (2020). Tax evasion, tax morale, and trade regulations: Company-level evidence from Poland. *Entrepreneurial Business and Economics Review*, 8(1), 111-125. doi:10.15678/EBER.2020.080106

Okpa, J. T., Ajah, B. O., & Igbe, J. E. (2020). Rising trend of phishing attacks on corporate organisations in Cross River State, Nigeria. *International Journal of Cyber Criminology*. 14(2), 460-478.

PwC. (2020). *Global Economic Crime and Fraud Survey 2020*. Retrieved 05 14, 2023, from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.global-screeningsolutions.com/industries/global-economic-crime-and-fraud-survey-2020-1.pdf

Ramamoorti, S. (2008). The psychology and sociology of fraud: Integrating the behavioral sciences component into fraud and forensic accounting curricula. *Issues in accounting education*, 23(4), 521-533.

Saluja, S., Aggarwal, A., & Mittal, A. (2022). Understanding the fraud theories and advancing with integrity model. *Journal of Financial Crime*, 29(4), 1318-1328. doi:https://doi.org/10.1108/JFC-07-2021-0163

Sari, M. P., Mahardika, E., Suryandari, D., & Raharja, S. (2022). The audit committee as moderating the effect of hexagon's fraud on fraudulent financial statements in mining companies listed on the Indonesia stock exchange. *Cogent Business & Management*,, 9(1). doi:https://doi.org/10.1080/23311975.2022.2150118

Șcheau, M.C.., Achim, M.V., Găbudeanu, L., Văidean, V.Ll., Vîlcea, A.L. & Apetri, L. (2023). Proposals of Processes and Organizational Preventive Measures against Malfunctioning of Drones and User Negligence, *Drones* 7 (1), 64

Shehata, N., Nathan, S., Farooq, O., & Dahawy, K. (2022). External audit and tax evasion: evidence from India. *Applied Economics*, 1-14. doi:https://doi.org/10.1080/00036846.2022.2123103

Shi, W., Aguilera, R., & Wang, K. (2020). State ownership and securities fraud: A political governance perspective. *Corporate governance: an international review*, 28(2), 157-176. doi:10.1111/corg.12313

Skousen, C. J., Smith, K. R., & Wright, C. J. (2009). Detecting and predicting financial statement fraud: The effectiveness of the fraud triangle and SAS No. 99. *Corporate governance and firm performance* 13, 53-81. Emerald Group Publishing Limited.

Smith, G. S., & Crumbley, D. L. (2009). How divergent are pedagogical views toward the fraud/forensic accounting curriculum? *Global Perspectives on Accounting Education*, 6, 1-24.

Soneji, P. T. (2022). The Fraud theories: Triangle, Diamond, Pentagon. *International Journal of Accounting, Auditing and Performance Evaluation*, 18(1), 49-60.

Strakova, L. (2021). Motives and techniques of earnings management used in a global environment. *SHS Web of Conferences*, 92. doi:https://doi.org/10.1051/shsconf/20219202060

The Institute of Internal Auditors - IIA. (2019). *Fraud and Internal Audit. Assurance Over Fraud Controls Fundamental to Success*. Retrieved 05 23, 2023, from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://epi.iiauat.org/globalassets/documents/resources/fraud-and-internal-audit-assurance-over-fraud-controls-fundamental-to-success-april-2019/fraud-and-internal-audit.pdf

Vousinas, G. L. (2019). Advancing theory of fraud: the SCORE model. *Journal of Financial Crime*, 26(1), 372-381.

Wells, J. T. (2017). *Corporate fraud handbook: Prevention and detection*. John Wiley & Sons.

Wolfe, D. T., & Hermanson, D. R. (2004). The fraud diamond: Considering the four elements of fraud. *The CPA Journal*.