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FRAUD RISK IN TIMES OF CRISIS AND THE DEVELOPMENT OF ITS MITIGATION TOOLS

The phenomenon of fraud has accompanied organizations since their beginnings. Its scale and frequency of occurrence are changing with the economic, legal and economic situation in the domestic and international markets. The factors conducive to its escalation are crisis situations, the determinants of which are to be found in both external and internal factors. Hence, in order to reduce the probability of occurrence and the effects of the impact of fraud risk on the organization, it is necessary to take appropriate measures and implement control mechanisms. The purpose of the publication is to analyze the development of anti-fraud controls diagnosed on the basis of periodic studies of the phenomenon of fraud and conducted by the ACFE organization between 2006-2022 and to assess the degree of their application in Polish business entities. The basic research method was quantitative and qualitative analysis. The analyses carried out showed that entities use anti-fraud controls. However, the prevalence of their application is progressing in accordance with the implementation of legal regulations and guidelines in this area. This means that state and international organizations' activities significantly impact the development of anti-fraud controls.

Keywords: fraud risk, fraud risk management, crisis

JEL Codes: D81, D82, D84, D85

Introduction

Fraud is a common phenomenon experienced by almost every organization. It represents certain market deviations that marginalize the theory of rational action¹. In turn, one of the assumptions of the theory of economics is the assertion of the infallibility of the market and its participants, which is supposed to ensure the rationality of decisions². Modern economics usually presents the free market as a well-functioning mechanism; however, this theory often deviates from reality³. This is because the market is unable to deal with the problems caused by fraud as susceptibility to fraud is a feature usually overlooked in economic theory⁴. In turn, the problem of rationality has long been described in the literature on the subject; among others, J.S. Mill, J.M. Keynes and J.K. Galbraith pointed out the discrepancy between economic theory and socio-economic reality⁵. They criticized the assumption of rational action, pointing out that economic theories should consider the lack

¹ E. Mączyńska: Kryzysy jako impulsy zmian systemów społeczno-gospodarczych, *Mazowsze Studia Regionalne, Mazowieckie Biuro Planowania Regionalnego w Warszawie*, 37, 2/2021, p. 11-32.

² A.G. Akerlof, R.J. Shiller, R. Shiller: *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*, Princeton University, Princeton 2009, p. 198-200.

³ G. Rist: *The History of development. From western origin to global faith*, Zed Books, London, New York 2014.

⁴ E. Mączyńska: Niezwywalne funkcje państwa – refleksje wokół książki G.A. Akerlofa i R.J. Shillera pt. *Złować frajera. Ekonomia manipulacji i oszustwa*, PTE, Warszawa 2017, p. 49-50.

⁵ S.P. Dunn, S. Pressman: *The Economic Contributions of John Kenneth Galbraith*, *Review of Political Economy*, 17, 2/2005, p. 161-209; Dzionek-Kozłowska J., *Model homo economicus. Geneza, ewolucja wpływ na rzeczywistość gospodarczą*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2018, p. 21-22.

of human rationality in decision-making⁶. It is worth noting that the economic theories of time increasingly take the paradigm of man being guided by non-economic rationale into account⁷.

The absolute assumption of rational action is impossible under the conditions of the development of the phenomenon of fraud, which is now one of the key threats to the modern economy⁸. The scale of this phenomenon intensifies depending on the economic situation. The frequency and scope of its occurrence also vary. Hence, its development is significantly influenced by crisis situations, which cannot be excluded from economic life⁹. Although, as Otmar Issing noted, according to Jean Monnet, a crisis is always needed to make progress¹⁰. However, given the scale of the growth of fraud, its effects may be much less beneficial to the economy. This is confirmed by a survey conducted by the Association of Certified Fraud Examiners (ACFE)¹¹, which indicates that as many as more than half of respondents observed an increase in fraud 12 months after the financial crisis began in 2008¹². In turn, the results of a survey of market players at the time showed that the uncertainty of the economic situation, and thus the risks of fraud risk, are becoming increasingly noticeable¹³. This is influenced not only by the pandemic situation related to COVID-19, but also by the armed conflict in Ukraine and the accompanying energy crisis the effects of which could be long-term. Fear of a recession may result in reduced investment and liquidity problems for business entities, and the consequence of this may be a growing risk of fraud – especially financial fraud – which may take various forms: embezzlement of assets, fraudulent financial reporting, or corruption¹⁴.

The reasons for the growing risk of fraud in times of crisis should be seen in relation to both external and internal factors. Among the external determinants of economic crises, exogenous and endogenous factors should be mentioned. The former are a consequence of such phenomena as epidemics, wars, fraud, and speculation. The latter are related to the industrialization of the economy which, as industry develops, transforms from local to economy-wide and international¹⁵.

Internal determinants of economic crises refer to the situation and structure within market entities. First and foremost, among them is the growing pressure associated with the company's deteriorating performance or the likelihood of its bankruptcy. Employees

⁶ K. Wach: Od człowieka racjonalnego do emocjonalnego. Zmiana paradygmatu nauk ekonomicznych, *Horyzonty Wychowania*, 9 (17)/2010, p. 96.

⁷ Dopfer K.: The Economic Agent as Rule Maker and Rule User: Homo Sapiens, Economicus, *Journal of Evolutionary Economics*, 14/2004, p. 179.

⁸ G.A. Akerlof, R.J. Shiller: *Złowić frajera. Ekonomia manipulacji i oszustwa* wyd. 2, Polskie Towarzystwo Ekonomiczne, Warszawa 2021, p. 198-200.

⁹ M. Bochenek M.: Rozważania historyczno-semantyczne na temat kryzysów ekonomicznych, *Acta Universitatis Nicolai Copernici, Ekonomia*, 63, 2/2012, p. 147-159; M. Bochenek: Lekcja z historii kryzysów gospodarczych na świecie, *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 39, 1/2009, p. 54-62.

¹⁰ O. Issing: The COVID-19 crisis: A Hamilton moment for the European Union? *International Finance* 2020, p. 340-347, <https://doi.org/10.1111/infi.12377>

¹¹ The Association of Certified Fraud Examiners (ACFE) has been publishing Reports to the Nation on Occupational Fraud and Abuse since 1996. It is the largest known privately funded study on the subject.

¹² Occupational Fraud: A Study of the Impact of an Economic Recession, ACFE, Austin TX 2019.

¹³ D. Słomski: Takiej kumulacji zagrożeń dla biznesu nie było od lat 80. Oto sześć głównych powodów, *Business Insider*, 2022, <https://businessinsider.com.pl/biznes/glowne-problemy-przedsiębiorców-takiej-kumulacji-nie-było-od-lat-80/xm98tn8> (access: 28.08.2022).

¹⁴ M. Kutera: *Nadużycia finansowe. Wykrywanie i zapobieganie*, Difin, Warszawa 2016, p. 5-27.

¹⁵ N. Omar, Z.A. Johari, S. Hasnan: Corporate Culture and the Occurrence of Financial Statement Fraud: A Review of Literature, *Procedia Economics and Finance*, 31/2015, p. 367-372.

particularly feel this pressure¹⁶. As a result, there is a need to take urgent, immediate solutions which are often accompanied by irrationality of action entailing dishonest and unethical behavior, a desire to take advantage of emerging loopholes in procedures, laws, or other opportunities that mitigate the effects of crisis situations¹⁷. As a consequence, a phenomenon of information asymmetry occurs when the parties have different information about the company, which can result in fraudulent situations¹⁸.

It is worth noting that information asymmetry plays a special role in explaining the phenomenon of fraud and abuse. It indicates that economic agents operate in an environment of constant uncertainty caused by inadequate information. Thus, when making decisions, market participants are guided by previous choices, basing future economic figures on information that is no longer valid. In many situations, information asymmetry is a roadblock to a mutually beneficial contract. This consequently leads either to moral hazard fraud or to the abandonment of the deal by the one party who feels uninformed (adverse selection). The phenomenon of information asymmetry is a subject of academic¹⁹ and research interest²⁰. It refers to the creation of such problems as the aforementioned adverse selection, the problem of agency or moral hazard, which have important implications for the rationale for committing fraudulent acts.

Taking into account the above considerations, the current economic situation and the experience of previous financial crises, entities cannot afford to be indifferent to the risks of fraud²¹. Unfortunately, the growing number of corporate scandals over the past century indicates that despite the efforts made and regulations introduced, the frequency of reported fraud cases remains high²². Currently, fraud has become one of the primary contributors to an organization's losses. Studies show that they reach up to several percent of companies' annual revenues²³. This shows that fraud is a serious and constantly evolving

¹⁶ M. Marmot, E. Bloomer, P. Goldblatt: The Role of Social Determinants in Tackling Health Objectives in a Context of Economic Crisis, *Public Health Reviews*, 9/2013, p. 1-2.

¹⁷ Tarcza antyfraudowa – jak zapobiegać nadużyciom w czasie kryzysu?, Tarcza antyfraudowa - jak zapobiegać nadużyciom w czasie kryzysu?, PwC, 2020, <https://www.pwc.pl/pl/artykuly/tarcza-antyfraudowa-jak-zapobiegac-naduzyciom-w-czasie-kryzysu.html> (access: 28.08.2022); D.R. Hermanson, S. Justice, S. Ramammorti, S., Jr, R.A., Riley: Unique Characteristics of Predator Frauds, *Journal of Forensic Accounting Research*, In-Press, 2 (1)/2017, p. A31-A4, <https://doi.org/10.2308/jfar51747>

¹⁸ Ch.S. Armstrong, J.E. Core, D.J. Taylor, R.E. Verrecchia: When does information asymmetry affect the cost of capital, *Journal of Accounting Research*, 49, 1/2011, p. 140.

¹⁹ J. Oleński: *Ekonomika informacji. Metody, PWE, Warszawa 2003*; A. Blajer-Gołębiowska: Modelowanie niepełnej informacji za pomocą teorii gier, [in:] D. Kopycińska (ed.), *Działania ekonomiczne podmiotów rynkowych*, Wydawnictwo Katedry Mikroekonomii Uniwersytetu Szczecińskiego, Szczecin 2007, p. 1311-1329.

²⁰ G. Akerlof: The Market for Lemons: Qualitative Uncertainty and the Market Mechanism, *Quarterly Journal of Economics*, 84 (3)/1970, p. 488-500, <https://doi.org/10.2307/1879431>; A. Mirrles: Information and Incentives. The Economics of Carrots and Sticks, *The Economic Journal*, 107/1997, <https://doi.org/10.1111/j.1468-0297.1997.tb00050.x>; T. Bernat, K. Hawran, J. Kowalik: Asymetria informacji w modelu pryncypał-agent – wyniki badań eksperymentalnych, *Przedsiębiorstwo i Region*, 8/2016, p. 65-75, <https://doi.org/10.15584/pir.2016.8.7>; B. Wachnik: Model przyczynowy zjawiska asymetrii informacji w informatycznym przedsięwzięciu wdrożeniowym, *Annales Universitatis Mariae Curie-Skłodowska Lublin*, 52, 2/2018, p. 172-183. <https://doi.org/10.17951/h.2018.52.2.171-183>

²¹ B. Dorris: Coronavirus Pandemic is a Perfect Storm for Fraud, *ACFE*, 2020, <https://www.acfeinsights.com/acfe-insights/coronavirus-pandemic-is-a-perfect-storm-for-fraud> (access: 29.08.2022).

²² M. Miller: Global profiles of the fraudster: Technology enables and weak controls fuel the fraud, *KPMG*, 2016, <https://advisory.kpmg.us/articles/2017/global-profiles-of-the-fraudster.html> (access: 29.08.2022).

²³ J. Karpoff, D. Lee, G. Martin: The consequences to managers for financial misrepresentation, *Journal of Financial Economics*, 88 (2)/ 2008, p. 193-215, <https://doi.org/10.1016/j.jfineco.2007.06.003>

problem²⁴. Therefore, fraud detection should become a priority in organizations²⁵; however, anti-fraud systems cannot prevent every case of fraud. As part of identifying and diagnosing fraud, it is necessary to implement control mechanisms in the organization, including appropriate methods and techniques to reduce the risk of fraud²⁶. To this end, companies implement proactive and passive anti-fraud controls. The task of the former is to prevent a fraud situation, while the latter is to verify its causes and effects after the event. Proactive tools primarily include document examination, internal audit, management review, account reconciliation, surveillance/monitoring, and automated transaction/data monitoring. These are established at the organizational level; hence proper identification of risks and knowledge of their causes and effects are an important part of fraud risk management. On the other hand, as an example of passive tools, we should mention, among others: tips, internal audits, management reviews, document examination, by accidents, account reconciliation, automated transaction/data monitoring, external audits, surveillance/monitoring, notification by law enforcement, and confession. These mechanisms are oriented toward specific actions taken to detect a fraudulent act and assess its effects on the organization. Some of these mechanisms, such as internal audits, can be active and passive. The ACFE's research shows that much lower fraud losses are incurred by companies that have previously identified a fraudulent situation as a result of proactive internal mechanisms within the organization. This is in contrast to passive tools, resulting in longer-lasting patterns and greater financial losses for the organization²⁷.

Research methodology

The conducted research aims to analyze anti-fraud controls applied in Polish business entities. Anti-fraud controls verified based on research on the phenomenon of fraud conducted by the ACFE organization were taken as a reference. The choice of the published list was related to the high evaluation of the effectiveness of the indicated tools. For this purpose, ACFE reports for the years 2006-2022 were analyzed. The evaluation of the application of the indicated anti-fraud controls in Polish business entities conducted based on the example of the 20 largest listed companies on the Warsaw Stock Exchange included in the WIG20 Index. The study period covered a period from 2017-2021. The basic research method was quantitative and qualitative analysis.

The choice of entities included in the WIG20 Index was motivated by the fact that they are required to disclose information on actions taken to manage fraud risk. This is confirmed by the Principles of Corporate Governance for Supervised Institutions introduced by the Financial Supervision Commission and the Good Practices of Companies Listed on the GWP published by the Polish Stock Exchange. They indicate the need to put in place mechanisms for detecting, overseeing and notifying abuses, and applying procedures to prevent conflicts of interest²⁸. These entities are also required to implement the

²⁴ M. Bekiaris, G. Papachristou: Corporate and accounting fraud: Types, causes and fraudster's business profile, *Corporate Ownership & Control*, 15 (1-2)/2017, p.467-475, <http://doi.org/10.22495/cocv15i1c2p15>

²⁵ K.A. Adeyemo: Frauds in Nigerian Banks: Nature, Deep-Seated Causes, Aftermaths and Probable Remedies, *Mediterranean Journal of Social Sciences*, 3 (2)/2012, p. 279-289.

²⁶ A.A. Boateng, G.O. Boateng, H. Acquah: A Literature Review of Fraud Risk Management in Micro Finance Institutions in Ghana, *Research Journal of Finance and Accounting*, 5 (11)/2020, p. 42-29.

²⁷ Occupational Fraud 2022: A Report to the Nations, ACFE, Austin TX 2022, 6-65.

²⁸ Zasady ładu korporacyjnego dla instytucji nadzorowanych, Komisja Nadzoru Finansowego, 2014, https://www.knf.gov.pl/knf/pl/komponenty/img/knf_140904_Zasady_ladu_korporacyjnego_22072014_38575.pdf (access: 29.09.2022); *Dobre Praktyki Spółek Notowanych na GWP 2016, Giełda*

provisions of Article 49 of the Accounting Act, under which they are required to publish, as a part of their disclosure of non-financial information, a description of material risks associated with the company's operations that adversely affect its operating policies, including corrupt activities²⁹. However, none of these provisions specify exactly what mechanisms these should be. Thus, the catalog of legally binding instruments to reduce the risk of fraud is left to the discretion of business entities.

Reports were used as source material: Report of Occupational Fraud: A Report to the Nations for the Years 2006-2022 (published by the ACFE), and non-financial reports presenting information on anti-corruption published by the analyzed companies. The latter provides information on fraud prevention mechanisms, and the obligation to publish them has been imposed on market players since 2017. The beginnings of the reporting were not easy as they included very limited information on measures taken to mitigate the risk of fraud. Despite the fact that, at present, there is an apparent trend toward increasing information on fraud control mechanisms, this area still requires improvement on the part of the entities.

The qualitative assessment focused on the use and development of anti-fraud controls based on research conducted by the ACFE. The information obtained made it possible to verify the extent to which the analyzed group of market entities uses the indicated anti-fraud controls as mechanisms for reducing fraud and what the process of change in this regard has been over the period studied, which was used to conduct a quantitative analysis.

The results of the survey were used to assess the degree of use of fraud mitigation mechanisms. The publication is a continuation of a series of articles on fraud and abuse in companies, the tools used in their mitigation, and the disclosure of information about them.

Results

Control mechanisms to reduce the risk of fraud are anti-fraud controls, which are updated every two years by the ACFE organization in the form of published reports. Their development over the 2006-2022 period is shown in Table 1. This period takes into account three crises. The first, the economic crisis in the financial and banking markets which took place between 2007 and 2009, was initiated by the collapse of the high-risk mortgage market in the United States. The second covers 2014, when a conflict that was part of the Russian-Ukrainian war, which has been ongoing since 2014, took place. The third, which began in 2021 and was triggered by the COVID-19 pandemic, has been further aggravated since 2022 by the armed conflict in Ukraine. Its effects, which include growing disinformation (among other things), are already being felt.

The data in the table shows that the development of anti-fraud controls occurred only in 2008 – before that, the entities were limited to the use of classic mechanisms such as auditing and training. After 2008, there was a clear increase in the use of mechanisms, which again occurred in 2014. It is worth pointing out that both dates are critical because they cover the indicated periods of crisis situations which initiated the expansion of the catalog of anti-fraud controls in 2008 and 2014, respectively. In 2006, the list of anti-fraud

Papierów Wartościowych, 2016, p. 14, 18, https://www.gpw.pl/pub/GPW/files/PDF/GPW_1015_17_DOBRE_PRAKTYKI_v2.pdf (access: 29.09.2022).

²⁹ Ustawa z dnia 29 września 1994 roku o rachunkowości, Dz.U. 1994, nr 121, poz. 591 as amand., art. 49b ust. 2 pkt. 3 i 5.

tools used was relatively poor and limited to basic mechanisms, often driven by legal obligations. In 2008, entities significantly expanded the anti-fraud toolkit in use. In contrast, in 2014, new tools such as proactive data monitoring/analysis, a dedicated fraud department, function, or team and also formal fraud risk assessments were implemented. The data in the table indicates that mechanisms such as code of conduct and external audits are currently the most popular. At the same time, it should be noted that an external audit is a tool that most entities – especially market-based ones – are required to use under separate legal regulations.

Table 1. Popularity of the use of anti-fraud controls between 2006 and 2022 [%]

Anti-fraud control/ Percent	2006	2008	2010	2012	2014	2016	2018	2020	2022
Rewards for Whistleblowers		5	7	9	10	12	12	13	15
Job Rotation/Mandatory Vaca-		12	15	17	20	19	19	23	25
Surprise Audits	29	25	29	32	33	38	37	38	42
Anti-fraud Policy		36	39	47	45	50	54	56	60
Fraud training for employees	46	39	40	47	48	52	53	55	61
Fraud training for manag-		41	42	47	48	51	52	55	59
Hotline	45	43	49	54	54	60	63	64	70
Employee Support Programs		53	45	57	52	56	54	55	56
Independent Audit Committee		50	53	60	62	62	61	62	67
Management review		41	53	60	63	65	66	65	69
External audit of internal con-		54	59	67	65	68	67	68	71
Internal Audit/FE Department	59	56	66	68	71	74	73	74	77
Management of Certification		52	59	68	70	72	72	73	74
Code of Conduct		61	70	78	77	81	80	81	82
External audit	75	70	76	80	81	82	80	83	82
Proactive data monitor-					35	37	37	38	45
Dedicated fraud department,					39	41	41	44	48
Formal fraud risk assessments				35	33	39	41	41	46

Source: own elaboration based on ACFE Report of Occupation 2006-2022, <https://www.acfe.com/fraud-resources/report-to-the-nations-archive> (access: 28.08.2022).

A relatively low percentage of entities use surprise audits, job rotation/mandatory vacations, or rewards for whistleblowers. Low interest is also shown in new mechanisms that emerged after 2014. The ACFE's research shows that of the tools identified, tools such as job rotation/mandatory vacation and surprise audit are the most effective in minimizing fraud losses. Unfortunately, these are the least popular among entities³⁰, although an increase in their use is evident over the years analyzed. Mechanisms such as anti-fraud policy, fraud training for employees, hotline, management review, management of certification of F/S and code of contact have also gained in popularity. In 2022, they showed more than a 20% increase in use compared to 2008. The above indicates that entities are implementing anti-fraud controls, with some more popular and others less so. However, only the use of all types of anti-fraud controls is associated with the lowest median of fraud losses, according to the ACFE.

Taking into account the analysis presented, the use of the indicated anti-fraud controls in Polish business entities listed on the Warsaw Stock Exchange as part of the WIG20

³⁰ Occupational Fraud 2022: A Report to the Nations, ACFE, Austin TX 2022, p. 6-65.

Index was verified. However, it should be noted that concerning Polish entities, there is an apparent problem with the disclosure of this type of information. Hence, the analysis covered 2017-2021, when the non-financial reporting obligation was introduced. Since then, there has been an increase in the number of disclosures on fraud mitigation tools, which may be a consequence of the establishment of the non-financial reporting obligation and increased information awareness on the part of entities, as well as the need for their implementation. However, drawing definitive conclusions on progress in this regard is somewhat difficult due to the unclear reporting system, resulting from the lack of clear guidelines for separating the area of fraud risk management and the failure to maintain uniformity in this regard. The results of the analysis are shown in Table 2.

Table 2. Application of selected anti-fraud controls in Polish entities included in the WIG20 Index in 2017-2021 [%]

Anti-fraud control/Percent of cases	2017	2018	2019	2020	2021
Rewards for Whistleblowers	5	5	5	5	5
Job Rotation/Mandatory Vacation	0	5	5	5	5
Surprise Audits	10	5	10	5	10
Anti-fraud Policy	90	90	90	100	100
Fraud training for employees	90	90	90	90	90
Fraud training for managers/executives	90	90	95	95	95
Hotline	15	20	30	45	45
Employee Support Programs	10	10	35	20	40
Independent Audit Committee	85	90	100	100	100
Management review	55	55	60	60	60
External audit of internal controls over financial	5	5	5	15	20
Internal Audit/FE Department	80	80	85	95	95
Management of Certification of Financial State-	100	100	100	100	100
Code of Conduct	95	100	100	100	100
External audit	100	100	100	100	100
Proactive data monitoring/analysis	70	80	90	90	90
Dedicated fraud department, function, or team	20	20	30	50	60
Formal fraud risk assessments	50	55	60	70	80

Source: own elaboration based on reports and statements on non-financial information published in 2017-2021 by companies included in the WIG20 Index

The data in Table 2 shows that the surveyed entities are taking measures to reduce the risk of fraud by implementing anti-fraud controls. However, not all of them are used. The most popular among the surveyed entities are an anti-fraud policy, an independent audit committee, a code of conduct, and an external audit. It is worth noting, however, that in addition to the anti-fraud policy, the other two are required by external regulations for listed entities to apply. The dominant item under anti-fraud controls is training for managers and employees. For years, there has been a definite trend toward undertaking preventive methods in the form of training, meetings and general education on fraud risk reduction. Almost all entities have established an independent audit committee within their structures. Also, a significant number of respondents apply proactive data monitoring/analysis and as many managements of certification of financial statements. The former involves verifying data and information to prevent fraud, while the latter means that

a certified independent auditor has audited and signed the financial statement. A significant number of entities have an audit department, but most have not indicated whether so-called “surprise audits” are conducted.

The data presented show that the overwhelming majority of respondents have a whistleblowing system in their structures. The same is true of the hotline system, which, as a rule, applies to whistleblowing. It should be pointed out that a fairly significant number of entities have implemented procedures to protect whistleblowers; however, most of them do not use a reward system for whistleblowing. It is worth pointing out that, with regard to whistleblowing, the greatest progress in its implementation into organizational structures occurred with the enactment of Directive (EU) 2019/1937 of the European Parliament and of the Council of October 23, 2019³¹, on the protection of whistleblowers, which was almost immediately reflected in the reports of the entities. While in 2017 there was a noticeable lack of implementation of whistleblowing in organizations, in 2019 there was already a clear increase in the use of this tool by 15% and, in 2021, by 30% compared to 2017. The adoption of tools such as hotlines and employee support programs followed this.

During the period under review, dedicated fraud departments also became more important. However, it is noteworthy that this function was also assigned as an additional function to audit or compliance departments. Only a few entities established separate fraud departments. Regarding job rotation/mandatory vacation mechanisms, it should be noted that these tools have a very low degree of application in the surveyed entities. Although the companies show staff turnover rates, they do not relate to minimizing the risk of fraud.

The survey showed that the investigated group of Polish entities is taking measures to reduce the risk of fraud. The development of anti-fraud controls is also visible, which, from the perspective of the progress of fraudulent methods and techniques, should be evaluated positively. The recurrence of crisis situations has taught us that we cannot remain passive in emerging crises and their consequences and accompanying consequences of fraud.

Conclusions

Fraud is a common occurrence in the economy. The effect of its impact on companies is different and further compounded by crises. Therefore, it is necessary to take appropriate measures in the form of anti-fraud controls, which cannot always prevent the occurrence of a fraud situation, but at least mitigate its effects. An assessment of the degree of application of selected anti-fraud controls was carried out for 20 companies listed on the WSE within the WIG20. They constitute a group of the largest companies with the highest liquidity. Hence, their selection was not coincidental as they should exhibit the highest level of protection against fraud risk and, therefore, be best equipped with controls. The analyses carried out showed that the entities use the anti-fraud controls under study as mechanisms to mitigate the risk of fraud. This implies the maturity of businesses in the face of the growing scale of fraud, thus recognizing the need to take measures to strengthen the company's defense system against fraud and manipulation. However, what is noticeable concerning Polish business entities is the lack of transparency and uniformity in the

³¹ Dyrektywa Parlamentu Europejskiego i Rady 2014/95/UE z dnia 22 października 2014 r. zmieniająca dyrektywę 2013/34/UE w odniesieniu do ujawniania informacji niefinansowych i informacji dotyczących różnorodności przez niektóre duże jednostki oraz gupy, Dz.Urz UE 15.11.2014, L. 33/1.

disclosure of information on fraud risk management. The control mechanisms that are implemented in business entities are, as a rule, integrated into other elements of the organizational structure. This should not be pointed out as inappropriate, but only hindering the acquisition of relevant information. Given its growing scale, reporting on fraud risk should be a separate item of reports. Yet, the tools analyzed, even if used, are not necessarily applied as the result of a focus on the problem, which is the need to reduce the risk of fraud. Hence, it is necessary to strive for transparency of published information. Moreover, the prevalence of fraud indicates the legitimacy of permanently including this issue in economic theory research and undertaking research aimed at counteracting it. This should be reflected in corporate reporting.

The advent of mandatory non-financial reporting has, in a way, obliged companies to apply the information about the control mechanisms to the risk of fraud public. Although the information they include on this subject is not yet comprehensive, as it is limited to indicating general data, there is also a lack of feedback on their effectiveness. Yet, striving to raise community awareness and ensuring independence in reporting on performance is extremely important in shaping a positive image of the organization. Entities should not forget to build airtight internal control systems based on adequate and effective controls. However, the lack of sufficient internal protection, low effectiveness of internal control and audit instruments causes the amount of fraud to remain continually high. The accompanying mood of the international situation, including the volatility of economic and business factors, exacerbates the phenomenon of fraud and abuse. In addition, it is necessary to consider the determinants of social and technological development, as well as the intensifying processes of globalization, internationalization and, in particular, the liberalization of capital flows – which make it easier for fraudsters to access knowledge, information, or data. This raises the question of whether, when fully equipped with all the anti-fraud controls analyzed, business entities will be sufficiently protected from the consequences of fraud, which may be a result of the current or upcoming crisis. This question will be answered in the course of further research conducted in the coming years. However, taking into consideration the significant progress in the development of anti-fraud controls, it should be noted that organizations are certainly much more prepared to protect themselves against the risk of fraud than in previous years. The coming years will be a test for the adequacy and effectiveness of the anti-fraud controls developed over the years. It is worth noting that a significant part of them was shaped by legal regulations and guidelines, while others were the result of operators' own experiences and actions. Thus, neither state legislatures, standardization organizations, nor economic operators can remain indifferent to further improvement of anti-fraud controls as the current ones may prove insufficient in view of the effects of the ongoing crisis.

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Ryzyko oszustw w czasach kryzysu i rozwój narzędzi je ograniczających

Streszczenie

Zjawisko oszustw towarzyszy organizacjom od początku ich istnienia. Jego skala i częstotliwość występowania zmienia się wraz z sytuacją ekonomiczną, prawną i gospodarczą zachodzącą na rynkach krajowym i międzynarodowym. Czynnikiem sprzyjającym jego eskalacji są sytuacje kryzysowe, których determinant należy upatrywać zarówno w czynnikach zewnętrznych, jak i wewnętrznych. Stąd celem ograniczenia prawdopodobieństwa występowania i skutków oddziaływania ryzyka oszustw na organizację, należy podejmować odpowiednie działania i wdrażać mechanizmy kontrolne. Celem publikacji jest analiza rozwoju mechanizmów ograniczania oszustw i nadużyć, zdiagnozowanych na podstawie cyklicznych badań zjawiska oszustw, prowadzonych przez organizację ACFE w latach 2006-2022 oraz ocena stopnia ich zastosowania w polskich podmiotach gospodarczych. Podstawową metodą badawczą była analiza ilościowa i jakościowa. Przeprowadzone analizy wykazały, że podmioty wykorzystują badane mechanizmy ograniczania ryzyka oszustw i nadużyć. Jednakże powszechność ich zastosowania postępuje stosownie do wdrażanych regulacji prawnych i wytycznych. Oznacza to, że działalność instytucji i organizacji państwowych oraz międzynarodowa ma znaczący wpływ na rozwój mechanizmów ograniczania oszustw i nadużyć.

Słowa kluczowe: oszustwo, ryzyko oszustw, zarządzanie ryzykiem oszustw, kryzys

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