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RESEARCH ARTICLE / ARAŞTIRMA MAKALESİ

Anti-Fraud and Anti-Corruption Tools in the Struggle Against Fraudulent Acts in the Public Sector

Kamu Sektöründe Sahtekarlık Eylemlerine Karşı Kullanılan Dolandırıcılık ve Yolsuzlukla Mücadele Araçları

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ABSTRACT

This study reveals the implications of anti-fraud and anti-corruption policies in the struggle against public sector accounting fraud and addresses the effectiveness of a vast number of methods for detecting fraudulent acts. This study also focuses on the terms and concepts of public sector fraud and corruption in order to provide a better understanding of the fraudulent acts committed within the public sector. This study's essential research aims are directed toward deterring the fraudulent actions of organizations (both government and state-owned enterprises [SOEs]) from the public sector's viewpoint and their financial results. In summary, the study deals with how to prevent fraudulent acts that are likely to be carried out and aims to provide a better understanding of the methods used to detect fraud and corruption in the public sector.

Keywords: Public Sector Fraud, Public Sector Corruption, Anti-Fraud Tools

ÖZ

Kamu sektöründe meydana gelen muhasebe hilelerine ve yolsuzluklarına karşı bu suçlarla mücadelenin sonuçlarını ve politikalarını değerlendirmeyi amaçlayan bu çalışma, çok sayıda hileli eylem tespit yöntemi ve bu yöntemlerin etkinliğini ele almaktadır. Bu çalışma aynı zamanda kamu sektöründe gerçekleştirilen hileli eylemlerin daha iyi anlaşılmasını sağlamak için kamu sektörü kapsamında hile ve yolsuzluk kavramlarına ve bu kavramların kapsamına odaklanmaktadır. Çalışma, kamu sektörü bağlamında işlenen dolandırıcılık eylemlerinin gerek kamu kuruluşları gerekse de KİT'ler tarafından finansal sonuçlarıyla beraber değerlendirilmesi ve önlenmesi gerektiğini belirtmektedir. Özetle, gerçekleşmiş veya gerçekleşmesi muhtemel hileli eylemlerin nasıl önlenebileceğinin ele alındığı bu çalışma, kamu sektöründe meydana gelen hile ve yolsuzluğun tespitinde kullanılan yöntem(ler) in daha iyi anlaşılmasını amaçlamaktadır.

Anahtar kelimeler: Kamu Sektörü Dolandırıcılığı, Kamu Sektörü Yolsuzluğu, Dolandırıcılıkla Mücadele Araçları

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1. Introduction

Corporate crimes can be expressed not just as an accounting problem but also as a social phenomenon (Wells, 2004) for both the private and public sectors and have come to the fore following the accounting scandals that emerged one after another in recent decades. Corporate crimes are not very obvious, clear, easy to understand, detectable, or measurable. According to the Federal Bureau of Investigation (FBI), these kinds of crimes are financial based and their main aim is to avoid losing money, equity, and ownership/services or to gain an upper hand (FBI, 2019). Each corporate crime such as fraud and corruption results in companies' or nations' limited growth and infrastructure opportunities. Corporate crimes like these offer nations no advantages; what is more, they bring financial instability and chaos, inhibit favorable investment circumstances, and even pave the way for bankruptcy (Johnson-Rokosu, 2013). Fraud gives companies and nations headaches and irritate markets and their players intensely on a global scale. Having companies and nations get involved in corporate crimes such as fraud in terms of determining and assuring the survival and success of their existence and sustainability is a critical issue for their future. Combatting fraud poses brand new and littleknown challenges to companies and nations.

As reported by the Association of Certified Fraud Examiners (ACFE, 2016), the government and public administration industry has been ranked as the second most risky sector after the financial services industry with regard to bearing the risks of fraud. In 2018, the government and public administration industry was ranked third in terms of the highest rates of corruption after the energy (53% of all the fraud cases) and manufacturing (51% of all the fraud cases) industries (ACFE, 2018). According to data obtained from ACFE's 2022 Report, the government and public administration industry ranks second in terms of a median loss of \$150,000 USD while facing 198 fraud-related cases, followed by the banking and financial sector with a median loss of \$100,000 USD resulting from 351 fraud cases (ACFE, 2022).

In conjunction with the results obtained from the Global Economic Crime Survey PricewaterhouseCoopers (PwC, 2011) conducted in June 2011, information about the government and public sector are seen to have been extracted from this survey, with government and state-owned enterprises (SOEs) able to encounter fraud cases more often than any listed private institutions.

In that sense, the constant concerns that companies and nations have in today's world, where they are just trying to compete on the global arena, are as follows: Why has the issue of fraud become a hot topic for the corporate global agenda, how can fraud-related risks be minimized, and how should actors fight fraud? In view of such information, governments and institutions have started to plough down everything that stood in the way of their sustainability and financial stability. In parallel with this purpose, they have begun attaching more importance to detecting fraudulent risks that have been boosted by frequent fraud cases and to creating an enabling regulatory environment while dealing with fraud-based public displeasure. Moreso, both governmental and private organizations have started developing risk assessment frameworks and audit implications and setting out clear anti-fraud rules to allow both internal and external environment actors to benefit from a clear understanding of what the organization's moral standing is against wrongdoing. Another way of fighting fraud involves utilizing a whistle-blower hotline, which refers to a service that helps insiders and outsiders provide immediate, timely, and prompt notice of a claim in order to reveal an illegal practice or toxic workplace behavior with the aim of detecting and deterring fraud and corruption.

The reason why fraud needs to be placed high at the top of the agenda is that a vast number of companies and nations have become aware of the significant results of fraud in today's digital world. Schweinhart et al. (1993) emphasized the issue of fraud by saying, "For every dollar spent, seven dollars are saved in the long run" (Welsh & Farrington, 2000, p.345). Every company pays for their crimes when the time comes, and the weed of crime bears bitter fruit. For this reason, all organizations should take preventive measures against these kinds of crimes in order to combat them and manage their fraud-related risks.

2. Theoretical Background

2.1. Public Sector Fraud

The perception of crime is mainly based on the law being broken by an overt act, omission, criminal neglect, or malpractice that requires punishment. Although the rule of thumb is that two main types of crime exist (i.e., property crime and violent crime), other types of crime such as corporate crime also exist that don't involve violence or property damage (Montaldo, 2017). Corporate crime differs from other types of crimes such as street crime and violent crime and are not as clearly criminal as murder, kidnapping, and theft are. Corporate crime mostly is not very obvious, clear, or easy to understand.

The literature has several definitions and perspectives about the terms of fraud and corruption. Some researchers support the idea that these two terms differ from one another, with one term not being able to be used in the same manner as the other synonymously. However, fraud and corruption have had several definitions proposed in the literature, and the literature can be said to still lack any broadly accepted definition for either of these two distinct terms. According to Kingsley (2015, p.203), fraud is defined as "the intentional misrepresentation of reality with the aim of manipulating or deceiving an organization or individual," while Perlmutter and Schoen (2007, p. 40) defined fraud as "violation of any rules, guidelines, procedures, or codes that guide company employees in their moral and ethical practices." Another study by the Transparency International New Zealand (2019) defined fraud as "an intentional act by one or more individuals among management, those charged with governance, employees, or third parties that involves the use of deception to obtain an unjust or illegal advantage." The legal definition of fraud can vary depending on the legal culture of the nations, with only England, Northern Ireland, and Wales applying legal guidelines for dealing with fraud and economic crime through the Fraud Act of 2006 which was enacted on January 15, 2007; the act includes a legal definition of fraud as a result (Kingsley, 2015). According to Arowosaiye (2012, p.1), fraud refers to "actions that involve deception for dishonestly generating a personal gain for oneself and/or a loss for another." From the perspective of the Association of Certified Fraud Examiners (ACFE, 2022) fraud can be defined as "any crime for gain that uses deception as its principal modus operandi." To sum up, the foundation stone of committing a corporate crime such as fraud is to gain economic profit; in other words, the underlying reason for fraud is completely economic.

Fraud can affect a wide range of people, with victims such as individuals, small- and medium-sized enterprises (SMEs), and large companies in addition to government and public sector companies, public sector enterprises (PSEs), and state-owned enterprises (SOEs; National Crime Agency, 2017). As defined in the Anti-Corruption Glossary by Transparency International (2022) the public sector covers both governments and their decentralized parts as well as their law enforcement forces, police, army, transportation, education, and healthcare systems that are funded by public resources with the aim of enhancing their citizens' quality of life. The main point that should be taken into consideration is that those services are given without seeking any profit. In today's fast-paced and competitive business environment and complex risk landscape, almost all government and public administration sector players as well as the business sector (or corporate sector) are defenseless against the threat of fraud. Taxation-based fraud like tax avoidance and tax evasion seems to cause the greatest losses for local governments (Jackson, 2013). The National Fraud Authority (2011) of UK estimated the expected losses in the public sector at roughly £21 billion, £12 billion for the private sector, £4 billion for individuals, and £1.3 billion for charities. One remarkable point is that the public sector has the biggest slice of fraud-based losses at 55% of the total losses in the UK. Fraud has catastrophic consequences such as financial distress, social injustice, and income inequality and can even destroy an entire economic system.

According to the latest global data obtained from the Financial Cost of Fraud 2018 (Crowe, 2018), between 1997-2017 the cost of fraud continued to increase, although many economies returned to growth except for 2008 when the global recession started. When looking at the Financial Cost of Fraud 2019, global fraud-based losses were equivalent to 6% of the total global GDP and cost roughly £3.89 trillion, or $5.127 trillion US. To make clear, the total financial cost of losses global fraud generated was equal to 180% of the UK's total GDP (Button & Gee, 2019). As reported in the Annual Fraud Indicator 2016 by the University of Portsmouth Center for Counter Fraud Studies, the total cost of public sector fraud was forecast at £37.5 billion per year in the UK (Annual Fraud Indicator, 2016).

2.2. Public Sector Corruption

Corruption can be defined as the "misuse of entrusted power or violation/abuse of trust with the aim of getting self-interest, personal benefit, or private gain" (Anti-Corruption Resource Center, 2019). Although corruption covers dishonest acts such as bribery, cronyism, nepotism, favoritism, artificial pricing, blackmail, theft, embezzlement, tax evasion, and forgery, it doesn't include mistakes or unintentional acts (Curtin University, 2015).

The research handbook Fraud and Corruption Awareness Handbook prepared by the World Bank (2019, p.1) identified fraud and corruption as the single concept of fraudulent practices and placed this in the literature. According to this handbook, fraud and corruption had been used to refer to "a fraudulent implication including any action, omission, misrepresentation, or deception with the aim of obtaining any advantage and profit or refraining from any obligation, knowingly or unknowingly." Along the same lines, the report Anti-Corruption Guidelines for World Bank Guarantee and Carbon Finance Transactions (2019, p.35) popularized the term of corrupt practice to describe the concept of corruption and defined it as "the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party."

Meanwhile, although a considerable amount of literature has been published on corruption, no generally agreed upon definition exists for the term in the literature. Because the definition of corruption varies among researchers, clarifying the scope of the term is important. Transparency International (2022) defined corruption as "the abuse of entrusted power for personal gain." Khan (2005) emphasized the misuse of power while defining types of corruption. William's (2005) definition of corruption parallels Khan's perspective. From William's point of view, corruption is a broad concept that covers any immoral, illegal, or unethical activity. From a different perspective, Dye (2007, p.313) defined corruption as "a kind of mode of action that deflects away from ethics, law, morality, tradition, and virtue." The Glossary of Statistical Terms prepared by the Organisation for Economic Co-operation and Development (OECD, 2019) also defined corruption as the "active or passive misuse of powers of appointed/elected public officials for personal financial or any kinds of profit." OECD particularly emphasized corruption's remarkably unfavorable effects on wealth, economic development, financial stability, trade, and the general health of an economy and set up the G20 Anti-Corruption Working Group (ACWG) in 2010 in order to eliminate the unwanted consequences.

In this day and age, public sector corruption has become a major threat to countries' national security systems. While corruption takes a large share of public resources, it also causes unjust enrichment of people involved in public costs to a limited extent. This situation also prevents states from playing an active role in resource allocation (Tanzi, 1997).

As the Federal Bureau of Investigation (FBI, 2019) stated, public sector corruption costs billions of dollars each year and has the ability to impact national border security, national economic security, national public health, and infrastructure safety. Public sector corruption can be defined as the abuse of public office for self-interest and should be deterred because it is a type of action that leads to enormous economic devastation, instability, insolvency, debt restructuring, and other effects (Boylan & Long, 2003). Public sector corruption is known to endanger and destroy massive legislation while preventing public sector and public services from reaching citizens and disturbing organizations and citizens' daily lives. For this reason, combating public sector corruption by implementing a comprehensive plan of attack in order to remove corruption-based obstacles and collaborating with other organizations have become more important than ever (Vyas-Doorgapersad, 2007).

2.3. Fraudulent Acts

Historically, fraud and corruption have often been perceived to be interchangeable and are still viewed as gargantuan twins. These terms are often used interchangeably without precision. To put a finer point on it, some researchers define fraud and corruption as one term involving "the unethical behaviors of a person that ends up with weakening the value of the organization as a result of nepotism, conflict of interest, collusion, cartels, gifts, hospitality, disproportionate lobbying, exploitation of public office, abuse of authority, disclosure of information and vote rigging." (Chartered Institute of Public Finance and Accountancy, 2011).

As mentioned before, this research uses fraud as a generic term that embraces all fraudulent acts such as fraud, corruption, and other patterns of illegal activities.

According to the report Strategic Framework for the Prevention of Fraud and Corruption (United Nations High Commissioner for Refugees [UNHCR], 2013), these two concepts were assembled under the roof of fraudulent acts, which refers to both fraud and corruption in order to provide more convenience to readers. UNHCR stated fraudulent acts to be able to emerge in many forms, including document forgery, bribery, falsifying invoices, fraud in the selection procedures of recruitment processes, falsifying expense claims, and many more.

Pursuant to the most frequently known fact about fraudulent acts, almost all public sector organizations including SOEs, no matter what their nature is, accept their sui generis reality involving unique understandings, sets of rules, regulations, implications, standards, and plans. Although every organization has a unique organizational culture with anti-fraud and anti-corruption policies, the risk of fraudulent acts that can generate losses to taxpayers, damage reputations, and cause disagreements about trustworthiness are always present.

Fraudulent acts in the public sector can be seen as a major obstacle to overcome with the aim of performing fundamental public services salubriously. For the very reason, civil servants should show sensitivity in dealing with fraud-related risks to detect, deter, and combat public sector fraud (GOV.UK, 2019). The Cross-Government Fraud Landscape Annual Report 2018 (Centre of Expertise for Counter Fraud, 2018) clearly reported and primarily concentrated on the fraud landscape, the total costs of the detected public sector frauds, and errors were roughly £191million, an increase of £86million from 2016-2017. Similarly, prevented fraud and recovery tended to increase in 2016-2017. Just as public sector fraud can reach huge amounts of monetary loss as could be seen from the aforementioned report, it can also lead to enormous economic devastation, job loss, insolvency, debt restructuring, and nationalization (Khondaker & Bremer, 2018).

Fraudulent acts not only lead to individuals becoming unjustly rich, but they also affect basic macroeconomic variables such as investment and growth and cause income distribution to deteriorate (Jain, 2001). These acts also jeopardize the sustainability of institutions by negatively affecting states' financial stability. Studies on the consequences of fraudulent acts show that the effects of fraud tend to reverberate throughout the economy rather than being limited to specific transactions based on fraud/corruption.

One of the most important methods used to measure corruption accurately was developed by Transparency International (TI, 2021). TI has determined countries' perceptions toward corruption since 1995 through the corruption perception index (CPI). CPI is one of the most comprehensive evaluation methods researchers frequently use to measure corruption and allows for comparisons to be made between countries (Iliman & Tekeli, 2016). CPI scores countries between 0 and 100 points, with lower scores showing higher perceived corruption in that country. In this context, a score of 100 indicates the cleanest situation, and 0 indicates the highest degree of corruption. In the light of 2021 data, approximately two-thirds of countries' CPIs remained below 50 points. When considering all 180 countries, the average CPI value is 43. Western Europe and European Union countries got the highest scores (66/100), while the lowest scores (33/100) belong to the Sub-Saharan Africa Region (TI, 2021).

The monetary aspect of the costs when organizations encounter public sector fraud might be just one dimension of the catastrophe. In other words, collateral destruction can have further economic results (PwC, 2007). Additionally, organizations confess and shed light on the hidden story of the fraudulent acts with a specific focus on the scandal's social cost in addition to its economic dimension. The fundamental point is that numerous organizations have started to notice the remarkable results of fraud in the digital world. When taking into account the total costs of fraudulent acts, the situation reflects its true colors, with total costs getting higher and higher. The bad news is that as the given economic consequences become more likely to be measured, organizations may undervalue or miscalculate the collateral damage while at the same time looking out for their adversely damaged, injured reputation, brands, and images and preserving motivation. For this very reason, fraudulent acts that abuse trust between citizens and the public sector should be deterred by proactively identifying and removing the causal and enabling factors of fraudulent acts (Cendrowski & Martin, 2012) as soon as possible when they get detected.

3. Combating Public Sector Fraudulent Acts

Currently, fraudulent acts and their destructive consequences seal the fate of other citizens and organizations and destructively impact them more specifically than ever before. Concordantly, citizens' concerns, needs, and expectations governments need to satisfy have become more sophisticated, mature, and challenging. In order to achieve these demands, organizations put legal compliance tools and mechanisms that reference and address ethics and conduct matters in their official records (Weaver et al., 1999).

Almost every organization knows that fraudulent acts that cause huge economic disasters, destroy the whole economic system, and result in breach of trust continue to be independent of other crime forms and are one of the major causes of organizations' deepest pains. Because citizens' confidence is a crucial factor in a healthy public sector, organizations should avoid committing fraudulent acts.

In addition to all the direct monetary costs of fraudulent acts, mentioning the secondary (indirect) costs of these cases is also beneficial. When taking all the primary and secondary costs of fraudulent acts into consideration, the act shows its true colors while the overall costs get higher and higher. The fundamental step for an organization is to overcome potential fraudulent acts before they come to light in order to get on with its life. In other words, deterring fraudulent acts is more effective than recovering from the harm.

When addressing deliberate actions of fraud, effective remedial measures should limit opportunities to commit fraud and make fraud lose its charm in the eyes of those doing harm. Accordingly, methods for deterring fraud such as presenting fraud strategies, programs, guidelines, and actions as well as fraud awareness guidance and training can promote and secure companies' stability and help them to survive. Due to the impossibility of preventing all fraud cases before potential harm is done, detecting measures like analytical methods that uncover anomalies, data mining, risk assessment, and other time-based mechanisms are obviously better (Chartered Institute of Management Accountants [CIMA], 2008).

In accordance with previous studies such as PwC (2010), organizations can be said to take precautions with the aim of minimizing and deterring the risk of fraudulent acts. Although entirely deterring fraudulent acts is impossible, organizations should still do as much as they can in order to reduce the risk of fraud by taking all the necessary precautions like strict internal control implications, regulations, sets of rules, norms, or other preventive applications. However, one shouldn't forget the main point is that organizations should secure the highest standards of effectiveness for these anti-fraudulent implications, policies, and programs.

According to the survey conducted by PwC (2010), a vast number of methods exist for detecting fraudulent acts. Figure 1 indicates the most successful detection methods.

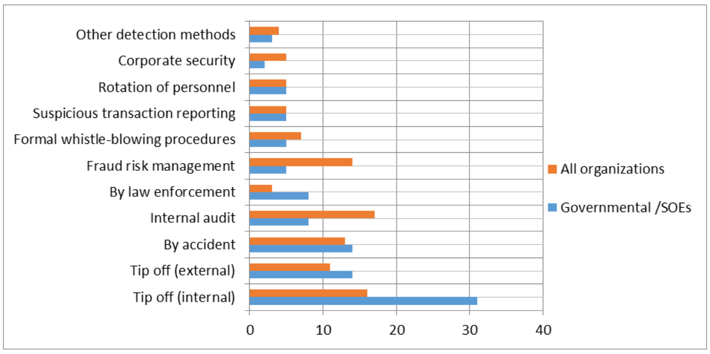

Figure 1. Detection methods (Source: PwC Public Sector Research Centre, 2010)

Unexpectedly, 14% of all recognized fraud cases were detected unintentionally, while 5% were discovered through organizations' official whistle-blowing systems according to PwC's (2010) study. Meanwhile, nearly half of organizations (45%) uncovered fraudulent acts with the help of unofficial (or informal) methods; for example, internal and external tip offs during internal audits detected 8% of all fraudulent acts in government/state-owned enterprises (SOEs). What is even more surprising is that the detection rate of fraudulent acts by internal audits was 17% when looking at all industries.

3.1. Risk Assessment

People generally perpetrate fraudulent offenses because they believe they have the right to do so; in other words, they feel free to commit these acts (CIMA, 2008). Constructing a far-reaching extensive anti-fraud plan inhibits people from committing fraud easily. This doesn't mean that companies will have the potential to wipe out all fraud cases. But it does provide companies with a sense of being able to detect potential risks, triggers, and perpetrators, to absorb typical fraud typologies, and also to construct safeguard measures (Deloitte, 2022). Implementing anti-fraudulent implications and deterrent regulations is regarded as one of the fundamental methods for combatting public sector fraudulent acts in terms of avoiding probable monetary and internal damage. Here, organizations should detect all the fraudulent risks that they may face from top to bottom within the body of the organization. In this direction, companies should determine and spot potential fraudulent risks, evaluate their likely effects, and compile a list of actions to manage the specified risks. These steps are the constituent parts of the risk management cycle. In line with the risk management cycle, companies need to take the following actions (CIMA, 2008):

1. Form a risk management group and set goals
2. Describe hot zones (risk areas)
3. Find out and weigh the scale of risk
4. Create a risk response policy
5. Apply the policy and allocate responsibilities
6. Carry out and observe the proposed measures
7. Inspect and improve the process, and repeat.

In order to manage fraud risks, companies should think about recognizing and describing all the potential fraud risks that the company bears. As the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2022) mentioned, organizations need to create their own control environment while conducting the method of fraud risk assessment (FRA), which can be defined as the set of standards, processes, and structures that enables internal controls to be conducted within an organization.

3.2. Red Flags

Fraud risk indicators are another control method used to combat fraud. This control method is also often referred to as red flags (Gullkvist & Jokipii, 2013). Red flags are used to express situations that are unusual in nature or that differ from normal activity. More specifically, red flags are a sign that something unusual is going on with the company and may need further investigation. However, red flags do not determine a person's or act's guilt or innocence; it merely points out potential fraud risks as a warning to companies against potential fraud.

A red flag denotes extraordinary situations that require more attention and meticulous research beyond the ordinary course of companies. The red flag approach acts as an early warning system to alert companies to the existence of possible fraud. The red flag approach is a method used to detect, identify, and strengthen the company's vulnerabilities and potential economic crime cases. In addition, organizations develop and implement proactive deterrent plans of action and maneuver to take precedence over the possible upcoming fraudulent acts with the aim of achieving sustainable growth. In addition to these precautions, organizations should also reveal, deter, control, manage, and relieve the red flags in their policy designs. Red flags can also be seen not only in policy design but also in internal audit procedures and contracting and auditing (International Public Sector Fraud Forum, 2019).

The presence of red flags does not always result in economic crime. A mistake committed by the company is just a mistake and does not constitute a criminal element. For this reason, detecting, identifying, and following up on red flags is important; an investigation should be conducted and handled meticulously if crime is detected (DiNapoli, 2008).

3.3. Data Analytics Methods

In today's communication era, organizations make use of ever more advanced information technology and data analytics methods in order to prevent and combat fraud (PwC, 2018). Improvements in information and communication technologies are advancing so rapidly in today's world. These developments have also increased the pace at which fraudulent acts mature and have accelerated their impacts. This situation has led government/SOEs to collaborate and interoperate with each other to share the best practices in terms of filling knowledge gaps, increasing efficiency, and encouraging employees according to the Guide to Managing Fraud for Public Bodies (International Public Sector Fraud Forum, 2019).

In addition to these developments in the deterrence approach, organizations also benefit from the opportunities of technological infrastructure, which covers the collection of technological techniques, skills, operations, methods, or processes in order to overcome possible fraud.

Fraud analytics bring human and technology together with the aim of unearthing extraordinary or unusual business activities. This human-technology coevolution enables potential fraudulent transactions to be revealed by identifying anomalies after investigating and verifying data patterns and discrepancies in the data set. Fraud analytics offers companies a dynamic approach to uncovering potential fraud. By means of fraud analytics, companies can directly access the information that is useful to them from the huge amount of data with a very complex structure with the help of multi-directional analyses, and thus they can make their decision-making processes more rational (Cahill et al., 2002).

3.4. Whistleblower Hotlines

Another way to combat fraudulent acts involves utilizing whistle-blower hotlines, which refers to services that help insiders and outsiders give immediate, timely, and prompt notice of a claim in order to reveal illegal practices and toxic workplace behaviors. Whistleblowers are identified as the most powerful weapons in the fight against fraud and report potential law violations to the competent authorities. They can enable companies to specify possible fraudulent offenses through their knowledge of the fraud crisis. In this direction, companies will have the chance to find out and analyze cases much earlier in order to minimize the damage (SEC, 2022).

Although whistleblower hotlines can have a fundamental impact on the reporting process of deterring fraud, having whistleblowers make protected disclosures all the time is not easy. Sometimes coming out with a fraud assertion after detecting irregularities can be nightmarish for a whistleblower because of being excluded by other employees. Sometimes fraud allegations can also be hard to prove or support with evidence in relation to misconduct or lawbreaking. According to the report conducted by ACFE (2022), companies with whistleblower hotlines are more successful at discovering fraud cases more rapidly and also have lower costs and less damage than companies that don't use hotlines. Furthermore, companies are 3.5 times more successful at exposing fraud by means of external audits and roughly 2 times more successful than unexpectedly revealing fraud (ACFE, 2022). 24/7 confidential hotlines and open channels of communication should be effective, clear, and well-communicated in order to protect both whistleblowers and the company by means of providing a critical service for whistleblowers (Libit, 2014).

3.5. Other Methods

Organizations should be aware of the importance of fraud and corruption principles before going to war against fraudulent acts. Predicting the possible fraudulent risks to deal with or face plays a vital role for the government/SOEs' survival. These organizations should be prepared to handle these challenges with the help of proactive precautions, develop a culture of trust, and promote open and honest communication (PwC, 2010). According to the results of PwC's research, the fundamental problem that causes stress is job-loss (staff reduction) anxiety. Precisely for this reason, organizations should observe personnel in order to assess their performance and detect when they feel under pressure. Organizations should also retain control over distrustful and doubtful operational activities (PwC, 2010).

When talking about the fraudulent risks within an organization, having organizations do exactly as they declare in their code of conduct (or code of ethics), set of rules, laws, norms, and regulations is vital for defeating these risks. Companies also benefit from statistical data analysis, employee training seminars, employee reference checks, and annual performance evaluations (Bierstaker, 2006).

According to the Guide to Managing Fraud for Public Bodies as prepared by the International Public Sector Fraud Forum (2019), all companies should be aware of five principles as specified below before fighting against fraud:

- There is always going to be fraud
- Finding fraud is a good thing
- There is more than one solution
- Fraud and corruption are ever changing
- Prevention is the most effective way to address fraud and corruption.

4. Conclusion and Discussion

After experiencing the dramatic consequences of massive corporate scandals and facing their economic and social outcomes in recent years, fraudulent offenses have currently been placed at the top of the agenda. The devastating outcomes that result from these offenses are mostly gigantic and compelling, and identifying, evaluating, and estimating the outcomes are a real challenge. Exposing fraud is not easy. Although most cases are caught accidentally, vigorous efforts are still made by governments to control and prevent probable fraudulent acts through prevention and detection methods. For this purpose, governments, institutions, and organizations engage in appropriate detection and prevention tools together with their fraud awareness and management plans (Center for Financial Reporting Reform [CFRR], 2017).

As mentioned in the Global Fraud Survey carried out by ACFE (2016), the public sector was the second sector to most face fraudulent acts after the financial services/banking sector. As of 2022, the government and public administration sector became the sector to suffer the second highest median loss ($150,000 US) by facing 198 fraud-related cases. On a deeper level, corruption is the most common occupational fraud scheme (57% of all cases) in the public sector (ACFE, 2022). In the government and public sector, recent data show cybercrime to cause the most disruptive fraud incidents (36%) and is a looming threat to the whole industry. The government and public sector also experience fraud cases mostly because of asset misappropriation (33%) and customer fraud (28%; PwC, 2022).

According to the report of the aforementioned survey from PwC (2010), remarkable progress has occurred in organizations and individuals' understanding of awareness for identifying fraud. Despite all these improvements, there are still some unseen considerations that stand in organizations' way to deter possible fraudulent acts. As the volume and scope of a public organization grows, the risk of fraud also increases. Although developing the perception of fraudulent risks has occurred dazzlingly fast, some fraudulent risks will always exist that need to be unveiled and identified clearly.

Despite organizations putting a lot of time, money, work, and effort into creating an anti-fraud culture with the purpose of managing and deterring fraudulent acts, the risk of fraud always exists. Prior studies have noted the importance of anti-fraud and corruption tools as deterrents, but the most important question to ask here is "To what extent are these anti-fraudulent tolls being used effectively, and do they really work?" This study set out with the aim of assessing the importance and effectiveness of these tools in deterring fraudulent acts. Tip offs both internal and external have the highest rates in detecting fraud. Contrary to expectations, the most interesting finding was that the rate of fraudulent acts detected accidentally (i.e., unintentionally) was higher than many detection methods. This study handles the anti-fraudulent tools that are used as an instrument to uncover fraudulent acts. However, these results are not very encouraging, because the results obtained from empirical research doesn't support the notion that proper anti-fraudulent policies, management, control, and communication systems and procedures are quite sufficient at deterring fraudulent acts.

The Occupational Fraud 2022: A Report to the Nations (ACFE, 2022) defined 18 common anti-fraud control methods and evaluated their effectiveness. Surprisingly, job rotation/mandatory vacation policies, and surprise audits were found to be the most effective control tools, although more than half of organizations don't provide these tools in their anti-fraud management plans. Data monitoring/analysis and formal fraud risk assessments are defined as other influential/highly effective control mechanisms public organizations should implement. Courageous internal control activities and efforts are perceived as the most efficient way for governments to mitigate fraud (CFRR, 2017). However, even governments with outstanding internal control mechanisms can't assure that they've built a fraud-proof society. Due to this reason, further steps should be taken, and more efforts are needed to deter public sector fraudulent acts.

According to the Public Sector Internal Audit: Focus on Fraud Report prepared by the World Bank Group Centre for Financial Reporting Reform (CFRR, 2017) all organizations should ultra-fastidiously consider all potential fraud risks. In order to develop well-functioning deterrence strategies to fight against fraud, determining what the risks are and how these risks should be conducted as a suitable and sufficient assessment are extremely vital. In accordance with this purpose, both endogenous and exogenous fraud risks should be described and spotted first. After determining potential fraud risks, actual deterrence tools should be examined to see whether they are working effectively at preventing fraud. If not, residual fraud risks should be evaluated after identifying the weaknesses of the fraud management system.

As already implied in previous research, the primary element triggering fraud cases in the public sector is internal control processes' weaknesses and deficiencies. Internal control as a deterrent tool is well known to work more effectively by uncovering 17% of all fraudulent acts compared to other control mechanisms. Interestingly, however, internal audits aren't as effective as expected in the public sector: they uncover just 8% of all fraud cases (PwC, 2010). According to the PwC's (2016) Fighting Fraud in the Public Sector IV report, most economic crimes committed within public sector institutions are largely brought to light by inspection of distrustful and doubtful transactions, accidental detection, and regular periodic internal audit processes. These results show that the method or tool considered the most effective in one sector may not be equally important in another.

Despite the fact that roughly two-thirds of government enterprises/SOEs have carried out a proper fraud risk assessment, only 5% of all fraudulent acts were uncovered through the fraud risk assessment (PwC, 2010). Meanwhile, a vast number of government enterprises/SOEs declared that they imply a zero-tolerance policy in order to fight against fraudulent acts. In contrast with this declaration, just 40% of fraudulent cases can be seen to have led to civil, disciplinary, or criminal proceedings being taken against employees. This reality brings up the question, "Does zero-tolerance always literally mean zero?"

The reason why fraudulent acts need to be placed high at the top of the agenda is that almost all organizations are aware of the significant results of fraudulent acts in today's digital world. Schweinhart et al. (1993) stated, "For every dollar spent, seven dollars are saved in the long run." Every organization pays for their crimes when the time comes, and the weed of crime bears bitter fruit. For this reason, organizations should take preventive measures against these kinds of crimes in order to combat them and manage their fraud-related risks.

To sum up in this day and age, fraud cases are well known to be an undeniable and inescapable fact. However, the most fundamental step to take in order to prevent public sector frauds is to take preventive measures against fraudulent risks and manage them. This is because beating a potential fraudulent act before it comes to light is always less expensive than dressing the wounds of the fraudulent act. Also, identifying one single tool as the most effective for deterring fraud is challenging. All fraud deterrence mechanisms (e.g., accessibility, human resources management, citizen and stakeholder participation, open government, and e-government, managing conflicts of interest, compliance-friendly environment, monitoring and oversight, and accountability and scrutiny- the four-eyes principle) have advantages and disadvantages, and as such should be considered carefully in order to make a sensible decision (United Nations Office on Drugs and Crime, 2019). Instead of adopting and applying one specific tool, public sector organizations should benefit from all control mechanisms.

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