

Occupational Fraud in a business context

How to define it, why individuals do it and how to fight it

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<p>Abstract:</p> <p>In this thesis I will focus on finding out how the academic and business world defines occupational fraud in a business context, why would anyone according to them want to perpetrate occupational fraud and how occupational fraud can be countered before and after it has been perpetrated. The main initiator for writing about this topic is that economic crime has significant consequences for the companies and societies where they are perpetrated. Through this thesis I want to shed light on the problem and collect the most important theories, issues and solutions provided by researchers and professionals about the topic. The chosen research method will be structured literature review, since the sensitivity of the topic makes it more difficult to get first hand data on the topic. The definition of occupational fraud varies according to what focus the author has, but the definitions have similarities. Why a person would commit occupational fraud is a complex matter since the motivation for committing occupational fraud is a very personal one, but a person may also become a perpetrator because of mental illness or without any clear motivator. There was a clear indication that the traditional model that focuses on the individual as perpetrator is wrong, since occupational fraud done in collusion with others is clearly more costly and more difficult to track than the ones done by a single individual. The "typical" occupational fraudster is a highly educated middle aged male, but this does not cut out the possibility of other individuals committing the crime since succeeding in occupational fraud has a lot to do with individual characteristics. It came out very strongly that company culture, management style, clear legislation, systematic and strong whistleblower-programs and segregation of tasks is essential in preventing and finding out about planned or perpetrated occupational fraud.</p>	
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1.INTRODUCTION

1.1. Background

Economic crime is a hidden crime that is generally not perceived by the public as tangible and threatful as street crime. This has resulted in overlooking and ignoring the significance of economic crime by governmental authorities, institutions and businesses worldwide for a very long time, and only recently has the negative impact of economic crime on companies, markets and the society been acknowledged. In this thesis I am going to focus on occupational fraud, which is one type of economic crime in a big variety of different economic crimes. Occupational fraud is divided into three major categories: corruption; asset misappropriation; and financial statement fraud. As Free (2015, p.190) points out: “It is frequently observed that fraud has a greater economic impact on society than any other category of crime.” This statement is supported by several other articles (for example Máté et al. 2019, p.1214 and Moore 2018, p.259). It is important to note that the estimated annual costs of occupational fraud for companies, organisations and societies vary, but according to the Report to the Nation-survey which is made by Association of Certified Fraud Examiners (ACFE) and that is published for the public every second year, the CEOs who participated in the survey estimated that the annual cost of occupational fraud is about 5% of the companies annual revenue. (ACFE 2020, p.11)

1.2. Research objectives

This thesis will focus on occupational fraud in a business context and can act as a “tool-box” for professionals fighting occupational fraud and for persons who might have an interest in the subject (members of the board of a company, the Chief Financial Officer, fraud examiners, auditors or individuals who work in the economic department). When you dig deeper in the material about occupational fraud, you notice that it has several definitions, so it is reasonable to ask what is actually considered to be occupational fraud in a business context. This

question is important because you need a consistent definition on what occupational fraud is to be able to establish when it has been perpetrated. So, my first research question will be:

Rq 1. How is occupational fraud defined in a business context?

When I know when occupational fraud has been committed, my next question will be who commits occupational fraud and why would they do it? Through an understanding of what triggers fraudulent behaviour, it is also easier to establish what you are fighting against and what countermeasures are needed to counter it. Therefore my second research question will be:

Rq 2. Why do individuals commit occupational fraud?

Lastly, my aim is to find out what is considered to be the best way to identify and counter occupational fraud. How do you stop a person from committing occupational fraud, and how do you find out if a crime has been perpetrated?

Rq 3. What kind of measures are there to fight occupational fraud?

1.3. Limitations

In this thesis I will focus on occupational fraud in a business context, which means that fraud perpetrated on the public side will not be taken into account. One big reason for this is that even though there are several similarities between the private and public sector, they also have several distinctive features that are typical only for the particular sector. The reason why this thesis is made about occupational fraud “in a business context” is because occupational fraud affects corporates (big companies) and small companies alike and therefore it is important not to cut out one or the other type of company because of company size.

Fraud and occupational fraud have many definitions and are in many ways the same thing. Not even researchers and professionals in the field agree on the definitions, which was one of the incentives to make this thesis. The big variety of definitions came out clearly in the research material, since the articles did not always correspond with each other when it came to the definition of fraud or even occupational fraud. It was also noticed that an article could talk about occupational fraud without specifying that it was occupational fraud and therefore I have not cut out citations or models that only talk about fraud, since that would cut out a big deal of insightful material about the topic of occupational fraud. In this thesis occupational fraud will also be called occupational fraud, fraud or fraud in a business context.

In some of the articles were mentioned sources that I could not find when I tried myself to get my hands on the original source, and therefore in these cases I will name the original source and refer to the secondary source I had found it from (in the case of original sources of Cressey 1953, Albrecht et al 1984 and Kranacher et al. 2011). It is also important to note that because of the sensitive nature of occupational fraud, it is very difficult to get reliable and accurate statistics about the frequency and damage of occupational fraud and therefore the given data is mostly estimates made by experts.

In this thesis I will focus on fraud research but I will also use insights from forensic accounting research to get a deeper understanding of the topic. Therefore our focus will be a less technical one and focus on why individuals commit occupational fraud and how the absence or presence of certain factors affect how inclined an individual is to commit fraud. In other words I will focus on the “soft methods” of fighting occupational fraud. And as Ozili (2020, p. 94) states, it is important to make difference between these two categories of fighting white collar crime (fraud research versus forensic accounting):

“It is important to stress that although fraud research is a wide and multi-disciplinary literature, fraud research is not the same as forensic accounting research. Forensic accounting research investigates how accounting and non-accounting tools are used to detect fraud patterns in the financial statements of companies and the effectiveness of such tools while fraud research, on the other hand, focusses on the study of fraud motivations, types of fraud,

the contexts in which fraud exists, institutional factors that encourage or discourage fraud, etc.”

1.4 Structure of the thesis

This thesis consists of six chapters and it includes a lot of quotes and models, which may affect the readability in a negative way, but because the chosen research method is structured literature review and the research questions are such that quoting several authors and articles serves a clear function, I hope the reader will bear this inconvenience.

The structure of the thesis is as follows: the first chapter is the introduction where I define the research objectives and how the thesis contributes to the broader issue, in the second chapter I will go through the theoretical framework where I make definitions and explain different basic phenomena related to the research topic. In the third chapter I go through the chosen research methodology, the justification for using the specific method in this thesis and how the research material was collected. In chapter four I go through the findings of the collected material. In chapter five I will discuss the findings and in chapter six I make the conclusions of the results of this thesis and make suggestions for further research on the topic.

2.THEORETICAL FRAMEWORK

Occupational fraud is considered to belong to the group of economic crime offences, or as it is also called: white collar crime. The first one to theorize about economic crime and to invent the term “white collar crime” was Edwin Sutherland in his article *White collar criminality* (1940, p.1). He was the first one who made a distinction between the so-called blue collar crime and white collar crime and stated that economic crime (white collar crime) is also a crime, which it in the past hadn’t been considered to be. Since Sutherland’s article, blue collar crime referred to violence and theft crimes (street crime) that were considered to be

perpetrated by the working classes because of poverty, whereas white collar crime referred to violent free crimes such as fraud, done by educated males from the upper classes of the society. The reason why white collar crime was considered to be the type of crime that the upper classes commit, is that they are individuals who are respected by the society, they have influential connections and have the education to commit complicated economic fraud schemes (Sutherland 1949, p. 9-10). This also influenced the way the perpetrator was treated when the perpetrator was caught, and according to Sutherland (1940, p.7-8) “upper class” criminals avoided conviction in the majority of the cases whereas perpetrators from the lower social classes were always convicted in one way or another.

According to more recent research there are no boundaries on who can commit economic crimes: it can be committed by individuals in high or low positions within the company. Also gender, social status or education does not affect the tendency of committing occupational fraud. (ACFE 2020, p.46-47 and Lingnau et al. 2017, p.1197) Therefore the earlier assumption that economic crime is only perpetrated by the upper class males is not accurate. It is also noteworthy that from the collected material only one article by Stlowy & Breton (2004, p.17-18) spoke of fraud as a crime of the management.

The authority in research, training and executing fraud examinations is the Association of Certified Fraud Examiners who define Occupational fraud as follows (ACFE 2020, p. 6): “*Occupational fraud* is formally defined as the use of one’s occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization’s resources or assets.” In short, fraud is a trust crime and occupational fraud can be committed by an individual or individuals who work in the private or in the public sector.

As can be seen from the Fraud Tree (figure 1), the offence group of occupational fraud includes many different economic crimes. Occupational fraud is divided into three major categories: corruption; asset misappropriation; and financial statement fraud.

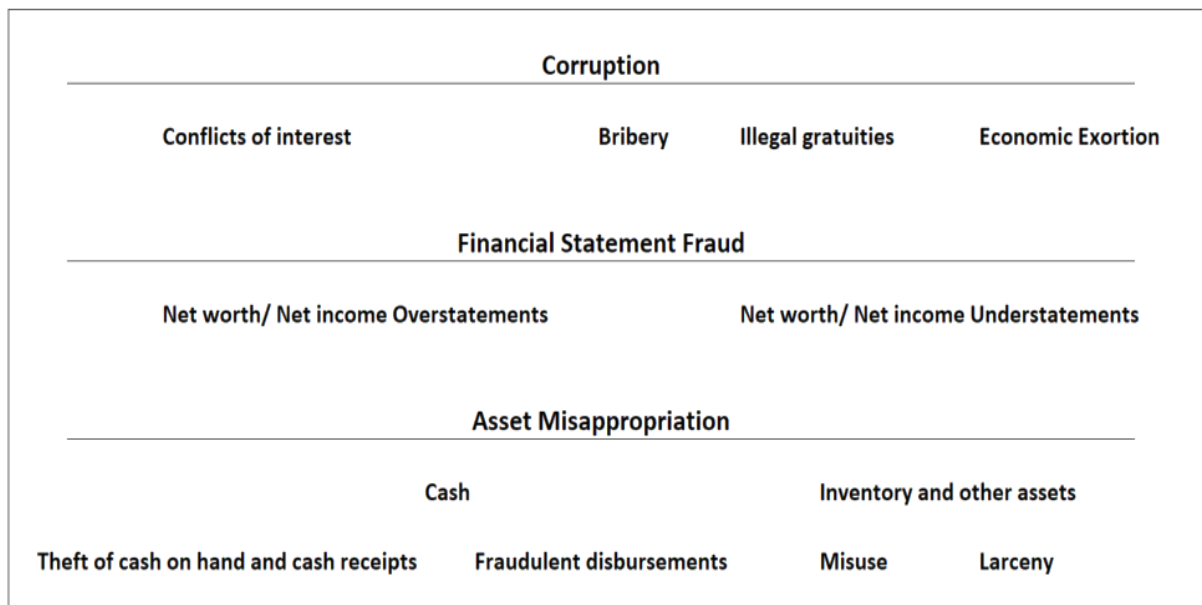


Figure 1. Occupational Fraud and Abuse Classification System, “The Fraud Tree” (an modified adaption from ACFE 2020, p.11).

With corruption is meant crimes such as bribery, extortion and conflict of interest; in other words situations where the individual influences other individuals decision making through mischievous behaviour. Financial statement fraud is when an individual or individuals overstate or understate the economic result of a company to gain personal gain. Asset misappropriation is when an employer misuses the company’s resources by stealing money or by misusing machines or materials to her or his own benefit.

According to Report to the Nation-report by ACFE (2020, p. 17) there are five different ways the perpetrators try to conceal occupational fraud: “In 40% of the cases the perpetrator created fraudulent physical documents, 36% altered physical documents, 27% altered electronic documents or files, 26% created fraudulent electronic documents or files and in 12% of the cases they did not try to conceal the perpetrated fraud.”

According to ACFE (2020, p.10-14); a typical occupational fraud case lasts 14 months before it is detected and it causes a loss of 8 300\$ per month for the organisation. The most common type of fraud is asset misappropriation schemes, that also are the least costly (median loss 100 000 \$), whereas financial statement fraud schemes were the least common but also had the

most expensive median loss 954 000 \$). The same report also concludes that “In one-third of the cases in our study, the fraudster committed more than one of the three primary categories of occupational fraud”. (ACFE 2020, p.12)

3.METHODOLOGY

3.1. Different research methods

There are two main types of research methods; qualitative and quantitative. Qualitative research method can be described as a research method that focuses on theories based on observation (you start with observation and then you draw conclusions from those observations), whereas quantitative research creates first a theory, tests it and then presents the results. It is still important to note that the difference between qualitative and quantitative research methods are not as clear cut as sometimes stated because you may also start with a theory before conducting a qualitative study. (Bryman & Bell 2015 p. 25)

For the collection of research material I have used a model that is based on the structure of Bryman (2012, p. 384) for committing a qualitative study:

- 1.General research questions
- 2.Selection of relevant sites and subjects
- 3.Collection of relevant data
- 4.Interpretation of data- Collection of further data
- 5.Conceptual and theoretical work- Tighter specification of research questions
- 6.Writing up findings

Usually by qualitative research method is meant research that is done by interview or questionnaire with open answer possibilities. Also observation where the researcher or the respondent describes what they have seen or experienced and how it felt (possibly both physically and mentally) is commonly used by qualitative researchers. It is still important to note that structured literature review is considered to be qualitative research, which means that the research method of this thesis is qualitative. You could also say that qualitative research focuses on describing textual data, whereas quantitative method focuses on numerical data. (Bryman 2012, p. 36-37)

3.2. Structured literature review

In some cases, like in the case of this thesis, the research questions are about a sensitive, maybe even a bit taboo topic, so it may be difficult to get respondents to answer to traditional questionnaires or participate in interviews. And even if there would be enough participants, there would always be a considerable risk in the reliability of the results since the respondents may not give honest answers due to the sensitivity of the topic. As an example we can mention Moore (2018,p. 268), who reported that she got a response percentage of 2% to her questionnaire when she was doing her research about occupational fraud. So therefore to be able to get sufficient amounts of reliable data, the chosen method for this thesis will be structured literature review. Structured literature review is done by collecting secondary data and using it as our research material, which in this case means collecting articles and literature that is relevant to the research questions by other researchers and professionals.

To collect secondary data has several advantages. Firstly the data is peer-reviewed and already “tested” which means that the data has passed the academically and professionally set standards for reliable sources. Secondly it makes it easier to collect a big set of reliable data that captures the various aspects of the studied phenomena. Lastly, since the data has already been collected and processed by someone, it makes it easier and faster to analyze the data and research results, which makes it in turn easier to see trends and make well educated conclusions of the collected research material.

The negative side of a structured literature review is understandably that the research is dependent on secondary data that may not always be accurate or is biased. In the case of fraud, there are a lot of cases that are not reported, and therefore they don't end up in the statistics. Also the variation in how economic crimes and occupational fraud is defined and recorded in different countries creates an extra challenge for researchers. This results in wrong or distorted data and therefore it can understate the amount of fraud cases or the impact of fraud on the company and society (and the economic system as a whole). Obviously information from secondary data also includes the possible biases of the interviewer,

interviewed, the creator or the respondents of the questionnaires. This is good to have in mind when evaluating results. It is then the researchers job to see the bigger picture past the biased results, the so-called “human factor” by approaching the results with a critical mind and using a big, reliable and versatile amount of data.

3.3. Data collection

As source material for the thesis the author used academic and professional articles and books that were relevant to the topic. The articles and material for the research was taken from four online scientific databases: ABI/INFORM, Emerald Insight, Academic Search Complete (EBSCO) and Libguide-database that was available through Arcada University of Applied Sciences library services. Other material and articles were taken from renowned and commonly approved professional databases in this field, such as ACFE and ASANET websites.

Following the model of Bryman (2012) the search for material was started using words and sentences broadly associated with the topic from the previously mentioned databases. When new words that had to do with the topic were discovered, those words were used as well to find material for the systematic literature review. It is important to note that in some sources occupational fraud was separately mentioned as the type of perpetrated crime whereas in some other sources the same type of crime was just defined as fraud. I have therefore accepted articles where they define fraud in a business context as fraud and articles where they specify it as occupational fraud.

The articles that were found with the search words were skimmed through to determine if the article was relevant for the thesis or not. The articles that weren't considered relevant or did not stand to the given standards of academic writing and objectivity or integrity were dismissed. The articles that passed the first funnel were read in full and made notes on. Those that were found irrelevant or in other ways biased were dismissed. Then the articles were read again, and with the help of the big set of data that was collected, the different findings were

categorized into different topics. From these categories of topics generalizations could be made to answer the given research questions.

The criteria for the material that was used as sources for the research was as follows: it had to be peer-reviewed, published in an academic journal or book, a acknowledged and widely approved source of information for professionals, in full text, in english and be available through one of the above mentioned databases or sources. Sources that did not fill one of these requirements were declined from the research material. There was some material that I could not get my hands on even if I knew the original title and author of the seminar presentation, article or book. Therefore an exception was made in the case of seminar presentations, articles or books that were cited by at least two different authors in two different articles that fulfilled the earlier mentioned research data criterias. There was no limit to publishing date and the articles were published between 1940 and 2020. No geographical area was excluded from the thesis (for further information see table 1).

When I went through the articles that had passed the different criterias for the research material, it came out that there were certain topics and themes that were recurring in the material and therefore could be considered important to the subject. To be able to get a better grasp of these themes and better analyse the material I have divided the most important themes into five main categories that examine the phenomena from different angles.

To see the whole table of the articles and sources see appendix 1. The articles were arranged in the table according to category, main theme, description of content, author and publication year and if the article also belongs to another category and if so, what category. Note that the articles are not in alphabetical order within the categories. Seventeen of the articles belonged to two categories and are mentioned twice in the table (once in each category). Please note that the material was not always “clear-cut” to belong to a certain category, since often the topics overlapped each other and even if an article could belong to two different categories, it could have even belonged to a third or a fourth category as well, but for the sake of simplicity the material could only belong to two different categories.

Table 1. Methodological chart.

Type of methodological approach	Qualitative
Type of method	Structured literature review
Used databases	ABI/INFORM, Emerald Insight, Academic Search Complete (EBSCO) and Libguide-database
Used websites	acfe.com, asanet.org
Requirements for material	peer-reviewed articles or professionally approved books, in full text, in english, relevant to the research questions, no geographical restrictions
Date of publishing	1940-2020
Amount of unique sources used in the thesis	49
Amount of sources if articles that goes in two categories are counted	66 (17 articles belonged to more than one)
Original sources that could not be found in the used databases	3
As search words was used	<p>“fraud in business context”</p> <p>“fraud in corporate context”</p> <p>“fraud in company context”</p> <p>“fraud triangle”</p> <p>“tools for fighting company fraud”</p> <p>“ tools for fighting corporate fraud”</p> <p>“ tools for fighting fraud in a business context”</p> <p>“fighting fraud”</p> <p>“fighting fraudulent behaviour in corporates”</p> <p>“forensic accounting”</p> <p>“Whistle-blowing”</p> <p>“Collusion in fraud”</p> <p>“Occupational fraud”</p> <p>“Fighting occupational fraud”</p>
Categories based on the research material	Theory of occupational fraud. Law. Sociology and psychology. Society and economy. How to fight occupational fraud

The justification for the chosen categories is that they provide answers to the research questions, and support the understanding of the phenomena of occupational fraud in a business context (see table 2).

Table 2. Which category answers to which research question (Author's own composition).

	Theory of occup. fraud	Law	Sociology and psychology	Society and economy	How to fight occup. fraud
Rq 1.	x	x			
Rq 2.	x		x	x	
Rq 3.	x	x	x	x	x
Rq 1. How is occupational fraud defined in a business context? Rq 2. Why do individuals commit occupational fraud? Rq 3. What kind of measures are there to fight occupational fraud?					

I will now go through the chosen categories and give the justification for choosing them: “Theory of occupational fraud” gives us the answer to what occupational fraud is and the definition of occupational fraud, it also goes through the basic theories about occupational fraud and the evolution of the theories. In “Law” there are the legislative and juridical perspectives of explaining and fighting occupational fraud. “Society and economy” explains the consequences and costs of occupational fraud (both from micro and macro point of view) since the individual affects the society and economy and the society affects the individual. “Sociology and psychology” explains the social and psychological incentives to commit occupational fraud and the consequences of the crimes on the short and long term. “How to fight occupational fraud” answers the question how occupational fraud can be prevented and how to effectively and how to fight occupational fraud when discovered.

4.RESULTS

In this chapter I will go through the findings of the articles, books and other sources that passed the given criterias (see table 1) and that was relevant to the research questions: “How is occupational fraud defined in a business context”, “Why do individuals commit occupational fraud” and “What tools are there to fight occupational fraud”. This chapter is divided into seven sub-chapters that are relevant to the topic. I will start with analyzing the occurrence of different categories in the research material and make conclusions on what it tells us about the focus and historical evolution of occupational fraud research and prevention. After that I go through the specifics of occupational fraud, the different theories and models about occupational fraud, what the research material says about how to fight occupational fraud and lastly make a summary of the results.

4.1. Frequency of articles and what that tells us about occupational fraud research

From table 3 that is based on appendix 1 we get an overview of the distribution of the articles according to frequency of category and time of publishing, and we can see that the categories in the collected material has been unevenly distributed amongst the publishing years.

Table 3. Distribution of articles according to frequency of category and time of publishing (Author’s own composition).

Year of publication	1940-2000	2001-2005	2006-2010	2011-2015	2016-2020	
Theory of occup. fraud	2	2	4	5	9	22
Law	0	0	1	1	2	4
Sociology and psychology	0	1	2	1	6	10
Society and economy	0	0	0	5	7	12
How to fight occup. fraud	2	2	3	2	9	18
Total collected articles	4	5	10	14	33	66

To get an even better overview of the distribution of the different categories I have made a pie chart (figure 2) based on table 3 where we can see that the majority of the articles were about or included the “Theory of fraud” (33% of the articles), which is followed by “How to fight fraud” (27%), “Society and economy” (18%), “Sociology and psychology” (15%) and “Law” (6%).

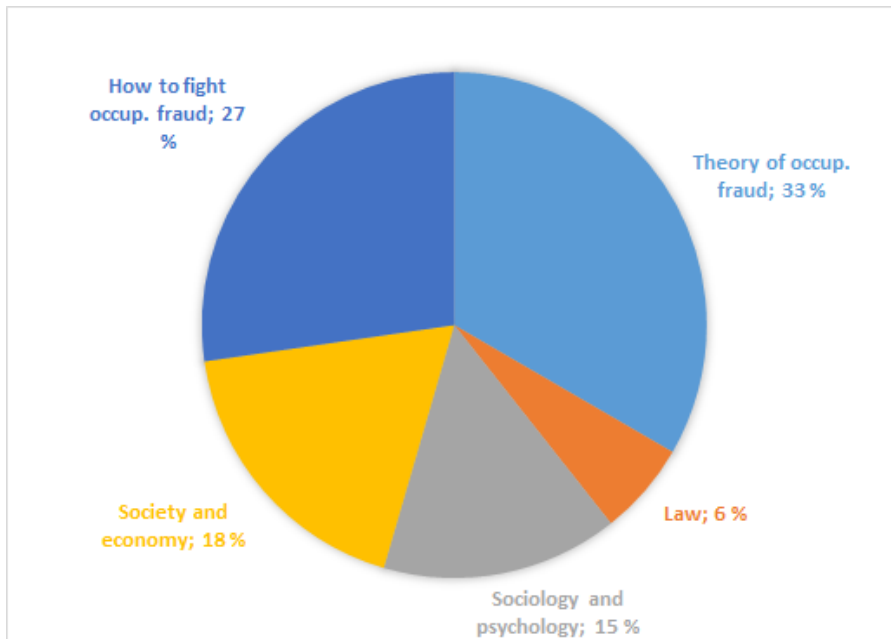


Figure 2. The distribution of different categories in the collected material (Author's own composition).

The later the publication year the more I could find material about occupational fraud (figure 3). It is important to put this into the context of that also the amount of published academic and professional articles has grown in general during this time period, but as we can see from table 2 and figure 3; the earlier the articles have been published, the more one-sided the representation of different categories are, and in turn the later the articles are published the more versatile the representation is. “Theory of fraud” and “How to fight fraud“ have been the most frequent categories during all years between 1940 and 2020 except between 2011 and 2015 when most articles were about “Theory of fraud” and “Society and economy”.

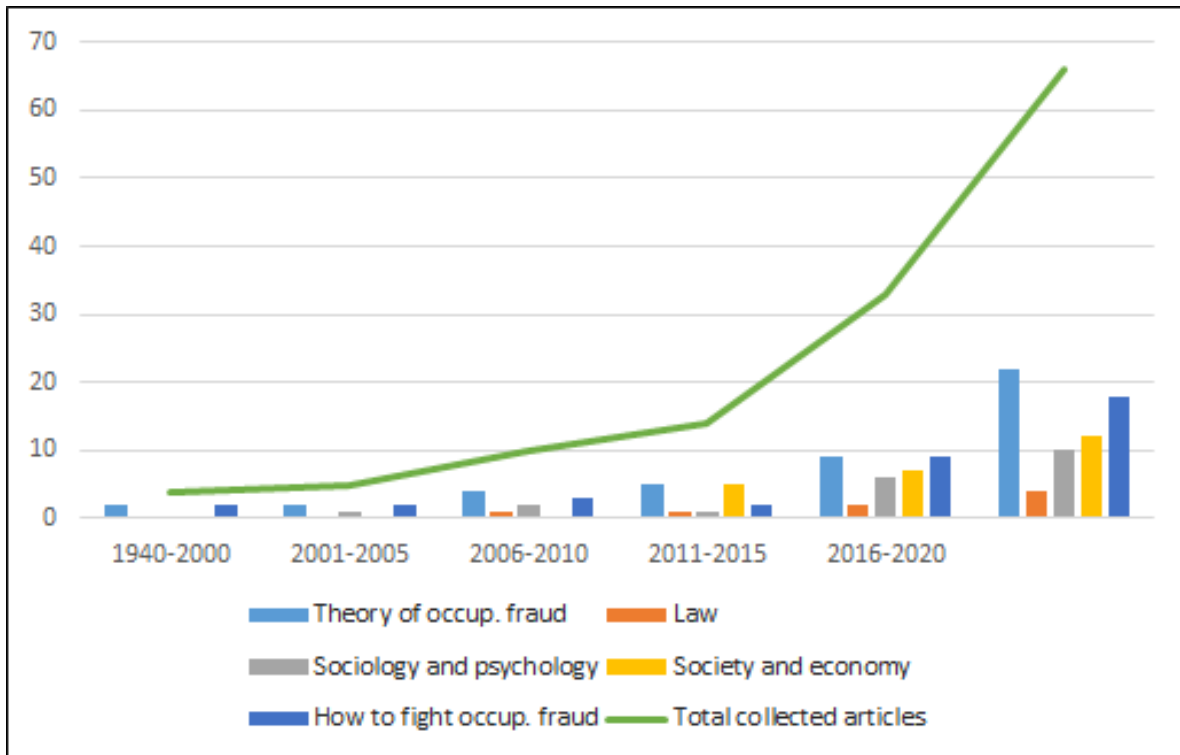


Figure 3. The growth of published articles compared with the growth of the different categories (authors own composition).

We can draw the conclusion based on figure 3, that in earlier years academia within occupational fraud research and the business sector has settled for one sided theorising, whereas in later years the research has broadened its scope from one sided theorising to more empirical research on the mechanisms and consequences of occupational fraud, which has consequenced in acknowledging the significance and complexity of occupational fraud to economy (both on micro and macro), society and the individual.

4.2. Why fighting occupational fraud is important

In the past occupational fraud has been considered to be a victimless crime, since it is “only” companies that lose money. But recent research proves that occupational fraud is not a victimless crime since the money that companies lose to occupational fraud could have been used for making new investments and paying profits to the owners. With these money gone the profitability of the company suffers, which in turn also has an impact on the society at

large through less employment and investments which in turn means less tax incomes for the country. (Kumar et al. 2018, p.188 and Rodgers et al. 2015, p.871)

The acknowledgement of the impact of occupational fraud on society and the economic system is reflected in the risen frequency of articles during later years that studies the phenomena from a society and economic point of view, and it also tells us that there has been an awakening on the consequences of occupational fraud, but the significance is still clearly undervalued (figure 4).

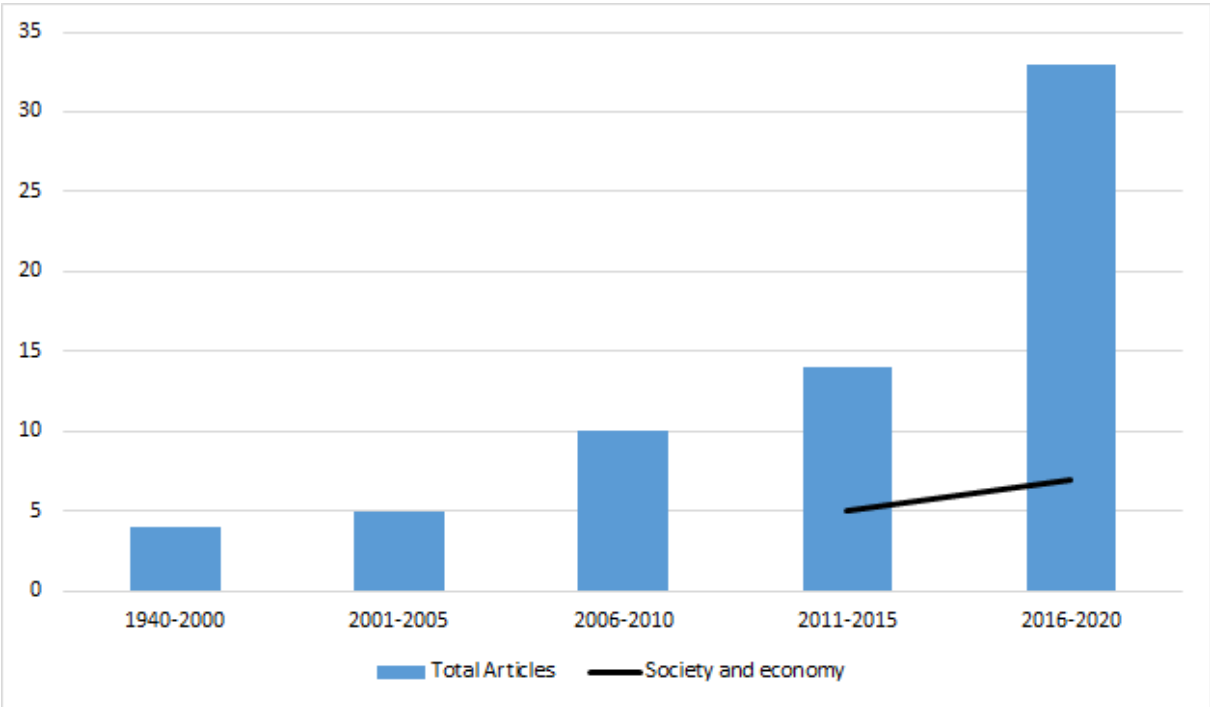


Figure 4. Chart on the frequency of articles about Society and economy in the collected material (Author’s own composition).

According to the Report to the Nation (ACFE, 2020), the median loss of occupational fraud for companies that have under 100 employees is annually 150 000 USD whereas the median loss for companies with over 10 000 employees is annually 140 000 USD. The median duration of a fraud scheme was 14 months and asset misappropriation schemes was the most common but least costly type of fraud, whereas financial statement fraud schemes was the least common but most costly type of fraud. (ACFE 2020, p.4 and 25) So as Glover and Aono

puts it (1995, p.4): “Fraud impairs efficiency, productivity and innovation because it siphons away resources to non-constructive activities. This limits an organization's ability to manage, grow and succeed”. See also Stlowy & Breton 2004, p.17.

In figure 5 below I have visualized the vicious circle of the cost of occupational fraud to companies. Note that this model could also be applied to reflect the impact of occupational fraud on the society, since the lost profits will result in less tax profits for the state, which in turn will reduce income that could be used for education and infrastructure and other important public spending.

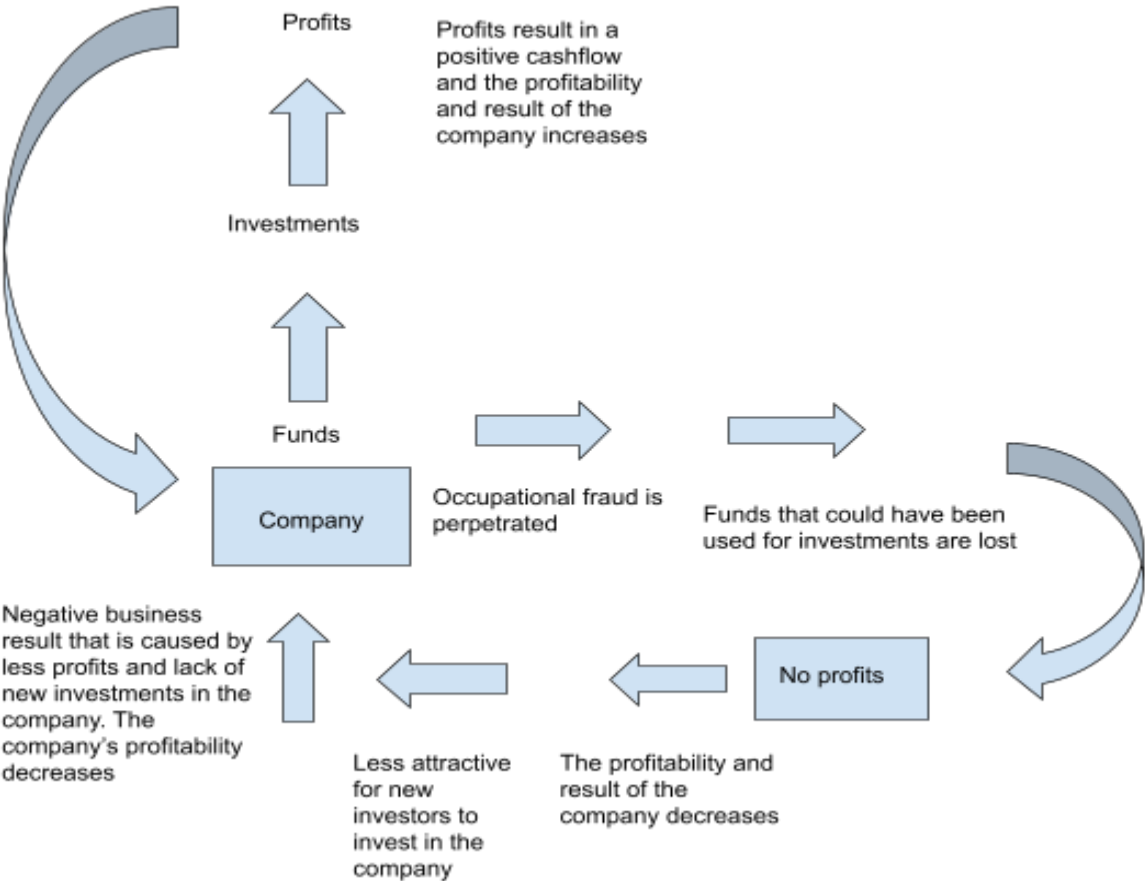


Figure 5. A visualization of the negative consequences of occupational fraud to a company's profitability (Author's own composition)

Button et.al (2012 p.68) claims that fraud should be considered as an unnecessary business cost that should be reduced to the minimum. Reducing the unnecessary cost of fraud makes the company more profitable, which in turn makes controlling the cost of occupational fraud

into a competitive advantage. This theory is supported by the articles that are mentioned by the authors above and is well visualized by figure 5.

Stakeholder theory by Rodgers et al. (2015, p.872) makes occupational fraud not only a problem of the company but the whole society: “Stakeholder theory puts forward that an organization exists not only to maximize shareholder value but also need to take into consideration the positive impact of its action on the firm’s other stakeholders.” or as Stlowy & Breton (2004, p. 17) puts it: “ In short, manipulating accounts is misleading society as a whole, not just the shareholders.”

So in other words the cost is not only the monetary value that has been lost to occupational fraud, but the cost that is embodied by mistrust between the parties of the economic system (companies, financing institutions and investors) and even disbelief towards the economic system itself. A good example of this mistrust is higher interest rate costs for mortgages and higher transaction fees in banking services. (Cohen 2015, p.308. See also Nawawi & Salin 2018, p.892; Omid et al. 2017, p. 267; Moore 2018, p.260; Perols 2011, p.19-20 and Lingnau et al. 2017, p. 1194)

The importance of trust is underlined by the research made by Dupont & Karpoff (2019, p.217) that points out that trust lies at the core of any economic transaction, since without trust people and businesses alike can not be sure that the other part will do as agreed (embodied in maleficent opportunism). An environment of distrust creates more costs since both parties make more controls that the conditions of the agreement are respected (lawyers, auditors). This has clear consequences for employment, business to business agreements and even in business to customer relationships. From these observations Dupont & Karpoff (2019, p.218) created the trust triangle that describes the mechanisms that make people and companies trust each other that makes economic activity possible:

- 1. Third-party enforcement:** Laws, institutions, regulations, and regulators
- 2. Related-party enforcement:** Market forces and reputational capital
- 3. First-party enforcement:** Personal ethics, integrity, and culture

We can conclude that the damage caused by occupational fraud is not only limited to the business world, it also in addition affects strongly on the rest of the society and political and economic system where the frauds are perpetrated: “Ultimately the cost of fraud is the impact it has on the moral fibre of our nation. Sociologists contend that fraud causes a pervasive attitude of “if others do it, so can I”, which fosters and perpetuates further indulgences of white-collar crime”. (Glover & Aono 1995, p.4) This in turn affects the general public's attitude towards crime in general, which in turn creates mistrust towards the legitimacy of the legislative system, institutions and authorities. It is also important to remember that where there is money, there is also the risk of organized crime as Vilks & Kipane (2018, p.2863) points out:

Undoubtedly, if crime affects the quality of life of the individual and the community, then crime can be seen as a social problem. Economic crime is closely linked to organized crime. Organized crime has a significant impact on government revenue and the overall business environment. The spread of organized crime, corruption and money laundering is a serious threat to the security of citizens and consumers, to freedom of movement, to the protection of businesses and to the free and fair functioning of competition.

It is also important to note that the problem with organized crime is that it rarely stays national, since it has a tendency to spread to other countries as well as Vilks & Kipane (2018, p.2867) states: “Economic crime, in general, has a significant impact on national and public security. Criminal groups of an economic nature accumulate large and hard-to-identify financial and material resources, and their activities are transnational in nature.”

4.3. Definition of occupational fraud

Since the majority of articles or sources described occupational fraud in one way or another, the articles that described a specific part of the phenomenon of occupational fraud in more depth or detail were put into the category of “ Theory of occupational fraud”. This means that those sources who just briefly described the phenomenon or gave a brief definition of occupational fraud were not included into the category. In other words if the focus of the article was in another aspect of occupational fraud, it was put into the category that the focus of the article was about. In more specific terms, articles that described a fundamental model or theory about occupational fraud, was put into the category of “Theory of occupational fraud”.

As we have already concluded in earlier parts of this thesis, sometimes the categorization of the different articles were challenging since the themes overlapped each other, but for the sake of simplicity the author took the freedom of categorizing the sources into different categories. Unfortunately this type of categorization method is not totally waterproof.

There have been many articles written about the theory of occupational fraud, which can be seen in figure 6, but interestingly enough, the fact that several articles are about theory of occupational fraud doesn't mean that there would be a clear and simple definition on what occupational fraud is.

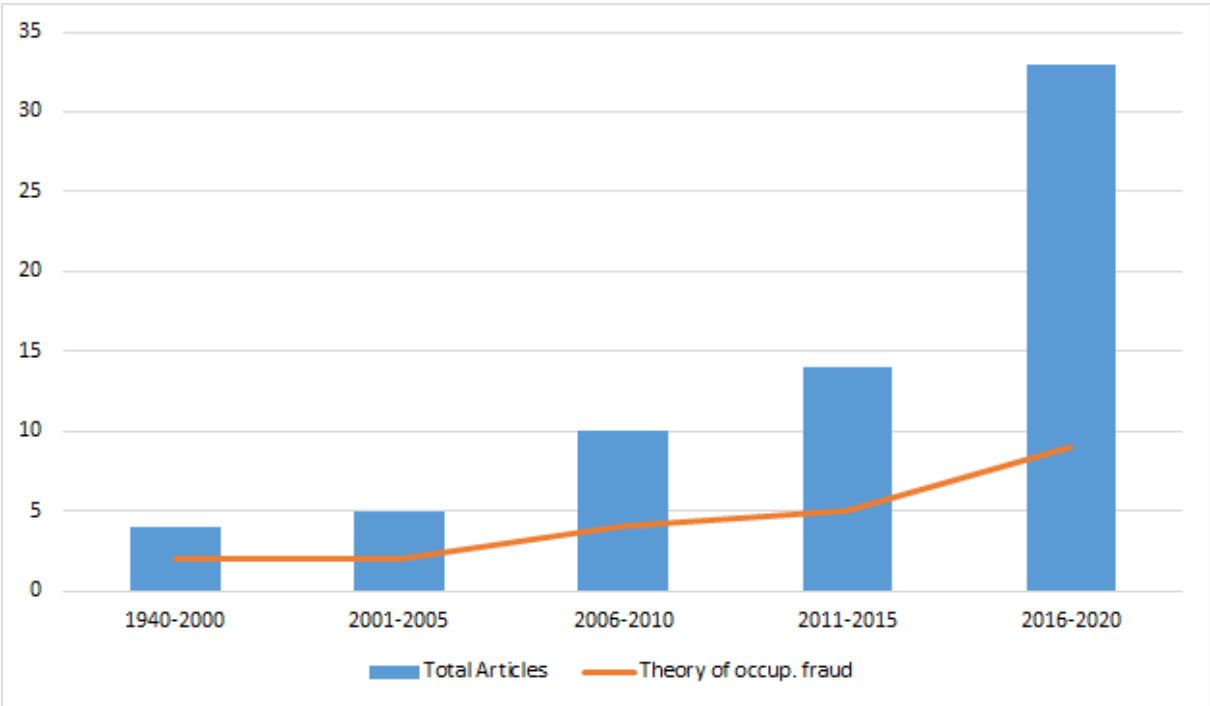


Figure 6. Chart on the frequency of articles about theory of occupational fraud in the collected material (Author's own composition).

It is important to note that as mentioned in the limitations of this thesis (1.3) in some of the material the perpetrated crime was specified as occupational fraud, whereas in other sources the same type of crime was just defined as fraud or fraud in a business context. In older material this can be due to the fact that the concept and term of “occupational fraud” was not yet invented, and everything that had to do with economic crime was called

“white-collar-crime” or just simply fraud and in more recent material it can have to do with the fact that occupational fraud as a term has not yet established itself as a term. This creates room for interpretation when going through the secondary data, which in turn leads to difficulties in being able to separate occupational fraud from other types of crime and to establish when specifically occupational fraud has been perpetrated.

The unclear lines between different economic crimes and the versatility of fraud definitions contribute to the confusion. But as Ozili (2020, p. 94) concludes, there are some similarities between the descriptions:

One notable progress in the literature is the richness of fraud definition. There is no generally agreed definition of fraud in the literature; however, there are informative keywords or terminologies that are associated with the definition of fraud. For instance: fraud is an “intentional”, “deliberate”, “purposeful act”, “omission”, “disclosure of less information”, “misrepresentation”, “non-disclosure of relevant information”, “to disguise”, “cheat”, “mislead investors” and “deceive firm owners, regulators and stakeholders” (Rezaee, 2005; Apostolou et al., 2001; Özkul and Pamukçu, 2012; Ozili, 2015). These informative keywords have been used to describe fraud, which is broadly an attempt by individuals, employees and firm managers to obtain pecuniary benefits that would not be obtained without taking such actions (Zahra et al., 2005; Ozili, 2015).

Ramamoorti (2008 p.522) defines fraud as following: “Fraud involves intentional acts of and is perpetrated by human beings using deception, trickery, and cunning that can be broadly classified as comprising two types of misrepresentation: Suggestio falsi (suggestion or falsehood) or suppressio veri (suppression of truth).”

Whereas Golden et al. (2006, p.2) gives four points that define what fraud is:

1. A false representation of a material nature
2. Scierter— knowledge that the representation is false, or reckless disregard for the truth
3. Reliance— the person receiving the representation reasonably and justifiably relied on it
4. Damages— financial damages resulting from all of the foregoing

Smith et al (2011 p.15) in turn defines fraud as “some form of intention of deception and/or dishonesty alongside the achievement of some kind of gain”. Allen et al (2006, p.161) concludes that fraud is in essence an act of criminal deception.

Watson (2003, p.41) approaches the subject from a different angle by stating that the definition of fraud is not the actual problem, but in general how an individual interprets the parameters of the definition.

It is also important to take into consideration the possibility of mistake, as Kumar et al (2018, p.189) points out, since something that could be suspected as occupational fraud could also be the consequence of human error (fault instead of fraud). This makes it even harder for the person investigating a possible crime to see if the crime has been intentionally perpetrated or if an intentionally committed occupational fraud has been disguised as a mistake by the perpetrator.

There are a lot of cases of occupational fraud that are not detected or that are not reported, and therefore it is difficult to give an accurate estimate of the costs and occurrence of occupational fraud based on different official databases where cases of fraud are registered. This makes the data that are abstracted from databases unreliable, and therefore it is difficult to make conclusions that would pass the academic and statistical requirements on reliable data. Also the fact that databases of different governmental agencies and institutions may be secret or protected by law, makes it difficult for researchers and professionals alike to get access to this information, which in turn makes it difficult to create a real and accurate picture of the different types and frequency of occupational fraud. (Máté et al. 2019, p.1214. See also Hendi 2013, p.355; Soltes 2019, p.923-924, 932; Pourhabibi et al. 2020, p.8-9 and Lingnau et al. 2017, p.1197)

So in other words there are many reasons behind why cases of occupational fraud are not reported: the variation of definitions of occupational fraud, lack of knowledge, lack of whistle-blower culture, fear of retaliation and the employer preferring settling between parties to avoid bad publicity for the company. (Hendi 2013, p.366 and Button et al. 2015, p.163)

4.4. Why people commit fraud

Recent fraud research emphasizes the importance of using psychological, sociological and criminological methods in countering fraud in advance instead of using the classical accounting methods of trying to spot committed crimes afterwards through forensic accounting or auditing the company accounts. Since the perpetrator of occupational fraud is a human, it is vital to understand what motivates a person to commit occupational fraud. Because any company can be a victim of occupational fraud, it is important to understand the reasons behind why the perpetrator committed the crime and how it was done. (Ramamoorti 2008, p.521-522 and Free 2015, p.191)

From figure 7 we can see that the significance of sociological and psychological factors have been lately acknowledged which is reflected in the rising frequency of articles that are about the psychological and social mechanisms that trigger or prevent fraudulent behaviour.

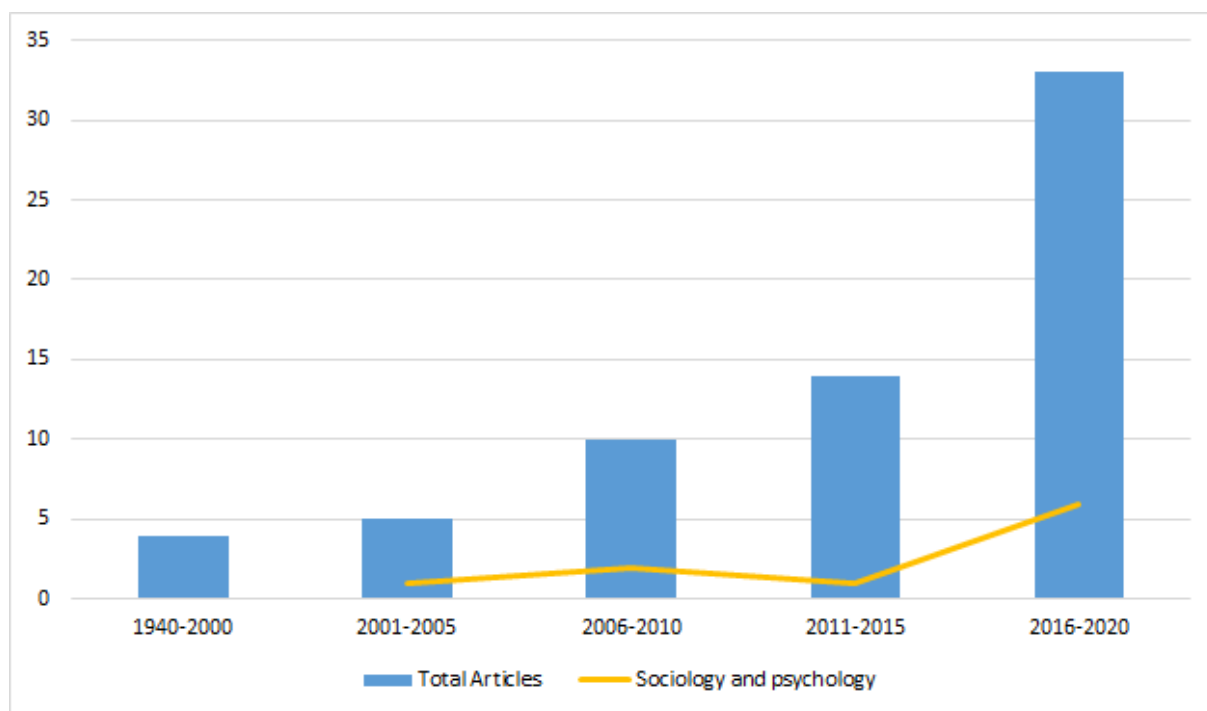


Figure 7. Chart on the frequency of articles about Sociology and psychology in the collected material (Author's own composition).

Most recent research on the causes of perpetrating occupational fraud underlines the meaning of opportunity and the perpetrators justification of the crime. Ramamoorti (2008, p.526) lists excuses that the perpetrators use to justify to themselves their fraudulent behaviour:

White collar criminals need excuses, and here's a typical list:

- Everyone's getting rich, so why shouldn't I?
- Taking money is just a temporary "borrowing," it will be returned when the gambling/betting winnings materialize.
- I deserve these "perks" as reasonable compensation, and the company can certainly afford it.
- This is victimless crime, if anything, and I am not hurting anyone; in fact what I am doing is good for the cause!
- It is not really a serious matter.

Ozili (2020, p. 98) continues on the meaning of justification for perpetrating the crime:

In a nutshell, if a fraudster believes that committing fraud will fulfil a higher moral well, the fraudster will have a strong incentive to commit fraud that achieves that moral good. At worst, in a court of law, fraudsters that have strong moral intent behind the fraud they commit are more likely to receive a lesser penalty than fraudsters with no convincing moral intent. Therefore, the morality of fraud is a concern that academics should not ignore in forensic accounting (and fraud) research.

Regulators, creditors, investors and management use the financial statements to estimate the profitability of a company or a department, so there is a big temptation for an individual to manipulate the financial statements if the actual results are not what they "should" be. (Youssef & Khan 2017, p.621. See also Ramamoorti 2008, p.524)

This means that individuals are taking advantage of information asymmetry to mislead colleagues, superiors, investors and even other third parties to make them believe that things are like the perpetrator wants it to be. (Stlowy & Breton 2004, p. 28) This is supported by the findings of Crawford & Weirich (2011, p.349) who report that the motivators for financial reporting fraud are as follows:

Financial reporting fraud is also a significant issue for closely held companies. The motivation for financial reporting fraud in private companies frequently relates to:

- desire by management personnel to achieve incentive compensation goals or keep their jobs;
- desire to increase the collateral base for asset-based lines of credit or the need to comply with loan covenants or retain/obtain financing arrangements;
- desire to achieve a sale or all or part of the company or buy out a minority shareholder;
- tax avoidance; or
- concealment of misappropriation of company assets by employees or owners.

Traditionally the individual's attitude towards fraud and obedience towards law and organisational ethics has been considered a measure of an individual's tendency to commit fraud. This is a problematic view since the perpetrator tries to conceal the committed crime or fraudulent intentions during interrogation. (Wilks & Zimbelman 2004, p.722)

4.5. Different theories and models about fraud

The reasons behind why a person would want to commit occupational fraud are complex and next we will go through different models that explain the psychological and social incentives that can trigger fraudulent behaviour. Most apparent reason for committing occupational fraud is pure greed and opportunism: “These types of fraud often take place when greed coexists with the possibility of deception. Given the liberty of our free capital market economy, the wealth that enterprises generate, and the temptation to defraud others, there will always be individuals who use criminal means to obtain wealth from others.” (Crawford & Weirich 2011, p.347-348)

To explain the incentives and motives of fraudulent behaviour, researchers and professionals in fighting occupational fraud have created different models, and the most famous and influential of them all is the model made by the former student of Edwin Sutherland, Donald Cressey who created the Fraud Triangle (1953). The Fraud Triangle states that there are three causal influences that affect the potential perpetrator: pressure, opportunity and rationalisation (see figure 8). (Dorminey et al. 2012, p. 557-559)

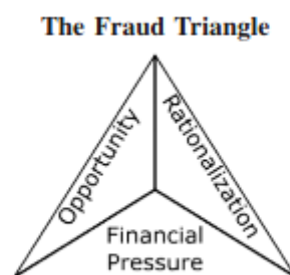


Figure 8. The Fraud Triangle (Adapted from Dorminey et al. 2012, p. 559).

Pressure for committing fraud can emerge if an individual has pressure of excelling in performance (excellence is rewarded with big bonuses) or if an individual struggles with economic debt that he or she does not manage to fulfill with the current income.

Opportunity is when a person has the possibility to commit fraud.

Rationalisation signifies the attitude of the individual of committing fraud and being able to justify fraudulent behaviour.

With the pass of time, there has emerged research that challenges the fraud triangle theory: in the Fraud Triangle it is assumed that the justification of the crime happens before the crime itself is committed, but it is important to acknowledge that the perpetrator may not think about the justification of the crime until after the crime has been committed. This means that anti-fraud efforts like awareness training may be inefficient and that a deeper understanding of fraud justification is essential in fighting fraudulent behaviour. (Free 2015, 183-185)

According to the research results of Anindya & Adhariani (2019, p.554-555), these three mentioned factors are not equally important to trigger fraudulent behaviour, but pressure alone is the most important one. Also Moore (2018, p.252-253) made a case about the insufficiency of the model.

Several contemporary academic researchers and professionals within forensic accounting and fraud prevention have further developed the Fraud Triangle as follows: Albrecht et al. (1984), created the so-called Fraud Scale-model (figure 9) by using pressure and opportunity from the Cressey's Fraud Triangle but replacing rationalisation with personal integrity. The Fraud Scale model emphasises the role of the potential perpetrators' morality. This logic is based on the notion that a person with a low integrity level is more inclined to be able to justify to herself criminal behaviour. (Free 2015, p.179-180)

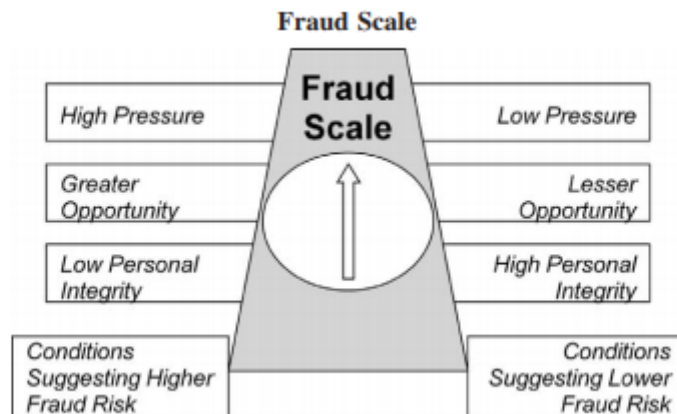


Figure 9. The Fraud Scale (Adapted from Free 2015, p.180).

According to Wolfe & Hermanson (2004, p. 39) incentive, opportunity and rationalization is not enough to explain why a person would commit fraud. Therefore they further developed on the model of the Fraud Triangle and created the Fraud Diamond (figure 10), where they added one more element: Capability.

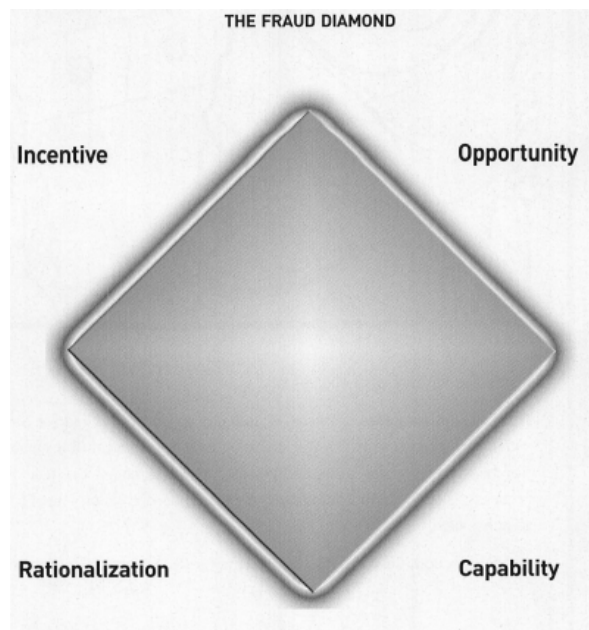


Figure 10. The Fraud Diamond (Wolfe & Hermanson 2004, p.38).

Wolfe & Hermanssons main argument is that the perpetrator needs to have the capability to commit the crime, since even if the elements of the Fraud Triangle would be there, but the perpetrator would not have the ability to exploit the situation, the crime would not be committed.

So what is then capability? Wolfe & Hermanssons (2004, p.39-40) explain that capability consists of:

1. The perpetrator needs to be in a position of trust in the organization to be able to see how the different processes are done, so that she would know what types of obstacles and opportunities there are to commit an occupational fraud.
2. The perpetrator needs to have the intelligence to be able to see the opportunity and to commit the fraud.
3. The perpetrator needs to have a strong ego and confidence in not getting caught.
4. The perpetrator needs to be persuasive and good in manipulating people to cooperate and to help in hiding the tracks and evidence of the committed occupational fraud.
5. The fraudster is consistent and convincing in her lies.
6. Handles well stress

In the so-called ABC-model by Ramamoorti et al. (2009, p.21-25) is described the factors that affect if an individual will commit fraud. It could be seen as a new version of the Fraud Triangle where the emphasis has been put on social factors:

Bad Apple - refers to the individual as the perpetrator and as a bad influence on the organisation culture and environment.

Bad Bushel - committing fraud in collusion, which makes the detection of occupational fraud much harder.

Bad Crop - the impact of corporate culture and society on the individuals attitude towards committing occupational fraud.

Cieslewicz (2010), developed the Fraud Square, where he added to Cressey's Fraud Triangle societal influence, which means that the perpetrator needs to be able to influence other people's behaviour (bad influence) to be able to perpetrate the crime. So it has similar elements as the Fraud Diamond and the ABC model on what affects an individual to become an occupational fraudster. (Free 2015, p.178)

The MICE model was developed by Kranacher et al. (2011) based on the Fraud Triangle to explain the motivators that are not impacted by pressure. MICE stands for Money, Ideology, Coercion and Ego. Money and ego implies motivators that are based on something that could be described as vanity. Ideological reasons for occupational fraud could be based on ideas about avoiding paying tax or the role of the state as a restrictor of individual freedom. With Coercion is meant situations where the perpetrator is “forced” to collaborate in an occupational fraud scheme that is masterminded by someone else. (Dorminey et al. 2010, p.20-21)

As Free (2015, p.181) pointed out, even though there are several different models that try to explain the reasons why anyone would commit fraud, there is an obvious risk of oversimplification and individual-orientedness when creating models about the fraudulent mind and reasons behind the actions. The human mind is a complex actor, and not always a rational one.

4.5.1. The profile of an occupational fraudster

The typical perpetrator is a male between the ages 31-45 and had been in the company for 1-5 years causing a median loss of 100 000\$ for the organization. An interesting fact is that occupational fraudsters that get caught usually don't have a previous criminal record. (ACFE 2020, p.45-48. See also Lingnau et al. 2017, p.1197)

It is important to note that the most costly occupational frauds are usually made by professionals in high positions within the company and they have several years experience in the industry. They know the company or the industry well and have the authority and position to get access to classified information, restricted accounts and databases. (ACFE 2018, p.33 and Wright 2017, p.21) This contributes to the amount of damage that they can create for the victim company or companies since they know the internal controls of the company, which also makes it more easy for them to conceal the tracks of the perpetrated crime and override the internal controls. (Hendi 2013, p.356 and Ramamoorti 2008, p.526)

There is also clear evidence that perpetrators with a university degree cause more damage than those who do not have an university degree. (Moore 2018, p.255) This does not mean that individuals with lower education would not be able to perpetrate occupational fraud, but on average people with higher education are more successful and more destructive when they commit occupational fraud. This is due to the fact that individuals with a higher education level are able to scheme and execute on average more intricate fraud schemes which require a high level of planning and sophisticated methods to perpetrate and cover the perpetrated crime, which in turn results in bigger losses for the company. This is supported by the Report to the Nation (ACFE 2020) that occupational fraud can be committed by anyone (22% of the cases where done by individuals with a high school degree or less and 41% of cases where done by employees).

In a study made by Feldman & Lobel (2010, p.1156 and p.1186. See also Soltes 2019, p. 930) it came out that individuals overestimate their own morals. They perceive themselves as more moral than they think other people are. The participants' estimation about other people's morals were correct whereas they were overestimating their own morality. This is an interesting result since it underlines the blindness of individuals rationality when it comes to their moral reflection of their own actions.

4.5.2. On collusion and co-offending

Many theories and models about occupational fraud focus on the individual as the perpetrator (for example Cressey's Fraud Triangle), but recently it has been recognized the importance and potential destruction power of occupational fraud that has been made in collusion. Collusion or co-offending is when at least two persons plan and perpetrate together a crime. (Free 2015, p.185 and ACFE 2020, p.48)

According to Free (2015, p.187) there is some common characteristics in co-offenders:

The three archetypes of co-offenders identified were as follows:

- (1) *Individual-serving functional bonds*: which characterize actors in a relationship bonded together by the view that co-offending offers a structure that provides, or enhances,

opportunities for fraud. Here, co-offenders find in their own individualistic self-interest to co-operate with others in the pursuit of individualistic benefits.

- (2) *Organization-serving functional bonds*: which characterize those bonded in a fraud to enhance the financial position of their organization. Organization-serving functional bonds underscore the importance of workplaces as sites of socialization and point to the criminogenic aspects of some organizational contexts.
- (3) *Affective bonds*: which refer to strong emotional attractions between two or more adults. These bonds are often tied to deep friendships and kinship, reflecting wider research in criminology highlighting the role of family relationships in the transmission of crime.

It is important to note that according to ACFEs Report to the Nation (2018, p.35 and 2020, p.48) when occupational fraud is done in collusion, it is a more costly crime than when perpetrated by a single individual. According to the same report (2020) in 49% of the cases there was one perpetrator who created a median loss of 90 000\$ to the organisation, in 18% of the cases there was two perpetrators who created a median loss of 105 000\$ to the organisation and in 33% of the cases there was three or more perpetrators who created a median loss of 350 000\$ to the organisation. The reason why occupational fraud made in collusion is so destructive is that when there are several individuals who are involved in perpetrating the crime, it is easier for them to override the internal security measures of the organisation and wipe out the security effect of segregated tasks and approve documents that a non perpetrator would never approve. It also makes it easier for the perpetrators to “clean” after each other’s traces of the perpetrated crime. Ramamoorti (2008, p.259) made a suitable remark, when he called fraud made in collusion as a “team sport”.

4.5.3. Industrial psychopathy or Corporate psychopathy

Fraudulent behaviour can also be the consequence of mental illness, most famously caused by something that is called Industrial psychopathy or corporate psychopathy. First of all we need to define what is considered to be psychopathic personality. According to Ramamoorti (2008, p.528) it is the following:

A psychopathic personality is characterized by a mental pathology with the following traits:

1. Amoral and antisocial behaviour,
2. Inability to form meaningful personal relationships, and
3. Extreme egocentricity and absence of empathy

And then we look at what the definition of corporate psychopathy is (Lingnau et al. 2017, p. 1193): “Corporate psychopaths are individuals successfully working in organizations, but are selfish, manipulative, and exhibit a lack of empathy, remorse, and conscience; therefore, they

may be viewed as risk factors for organizations.” Ramamoorti (2008,p. 528-529) describes in a similar way Industrial psychopaths, which could be seen as the same thing as corporate psychopaths. Carmen Kühn (2012) goes as far as to say that the Economic man, the Homo Economicus is by definition a corporate psychopath. (Lingnau et al. 2017, p. 1216)

With corporate or industrial psychopaths there is an apparent risk of social engineering. Social engineering is the act of manipulating and influencing people to get what you want. Instead of breaking into sensitive data-systems, they break into the minds of coworkers, obtain information and make them compromise their own work ethics for the benefit of the manipulator. (Ramamoorti 2008, p.527-528) It is then not so surprising that the consequences of Corporate psychopaths can be fatal for the organization: unhealthy working ethics, bullying, unfair treatment and a rise in the number of resignations of employees. (Lingnau et al. 2017, p. 1201)

To avoid that corporate psychopaths start to undermine the company from within, a healthy working environment where real and honest social skills are required and valued keeps the psychopaths away automatically, since they do not have the possibility to create roots in the organization. (Lingnau et al. 2017, p. 1217)

4.5.4. The role of society and organizational culture in shaping behaviour

There is a lot of research on how organization and corporate culture affects the occurrence of occupational fraud. There is a strong evidence that occupational fraud occurs more in organizations that have aggressive economic growth goals and a machiavellian working culture. (Hendi 2013, p.536-537, 361-362. See also Crawford & Weirich 2011, p.349; Nawawi & Salin 2018, p.895; Harjoto 2017, p.763; Johnson et al. 2019, p. 182-183; Smieliauskas et al 2018, p. 442 and Moore 2018, p. 258-259) So in other words organization and corporate culture affects strongly in what is considered to be acceptable and what is not.

Crawford & Weirich (2011, p.348) claims that manipulation of Generally Accepted Accounting Principles (GAAP) has been widely accepted within the business world. By manipulating the books or “cooking the books”, the companies have given manipulated and misleading information to third parties (owners, auditors, the market) without actually engaging in illegal activity that would break any law. (See also Stlowy & Breton 2004, p.11-12) The “silent acceptance” of this type of behaviour is problematic because of cultural transmission: A certain behaviour is the norm, and the attitudes and ethics of the organization is transmitted to the new employees even if it wouldn’t be considered as ethical by the surrounding world. (Kumar et al. 2018, p. 190-191)

4.6. How to fight occupational fraud

For companies to be able to stop occupational fraud, they need to know how to prevent, investigate and fight it. From the research material we could see that the topic has been widely researched and the frequency of the topic grew the later the article was published, with the exception of the years between 2011-2015 where it declined slightly (see figure 11).

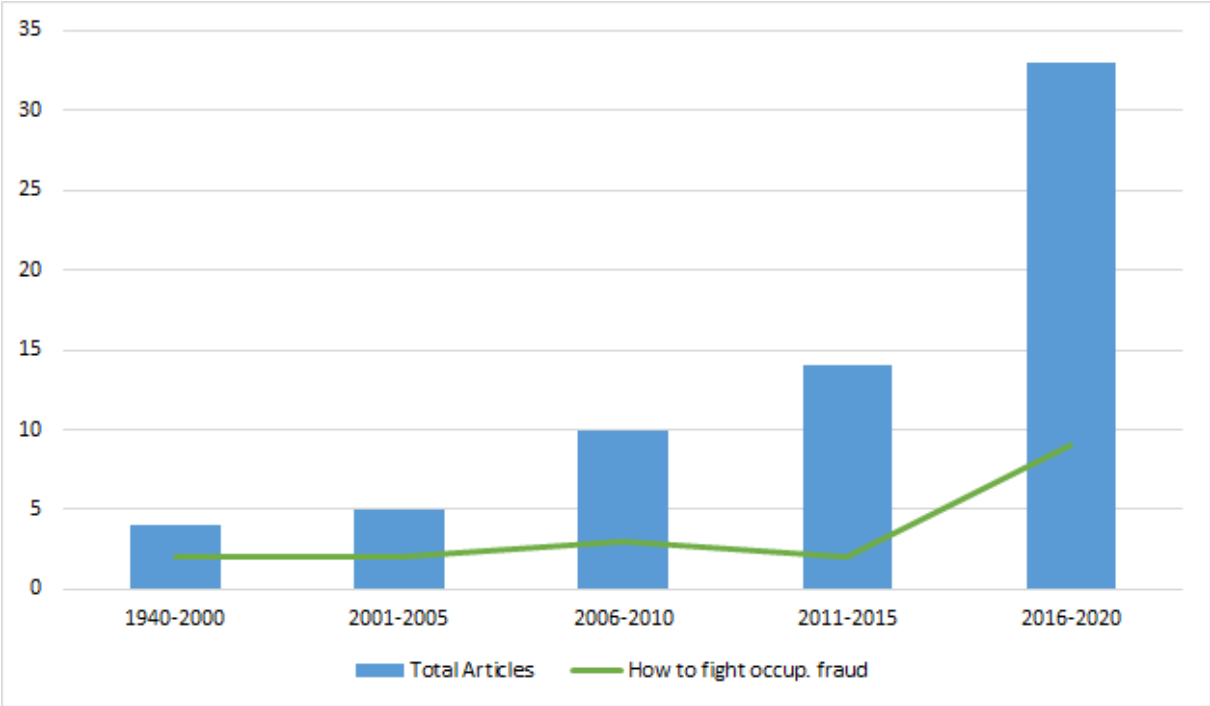


Figure 11. Chart on the frequency of articles about how to fight occupational fraud in the collected material (Author’s own composition).

As with categorization of articles into the “Theory of occupational fraud”-category is the same with “How to fight occupational fraud”, which means that articles or sources that only briefly explained about how to fight occupational fraud or did not include this topic were not included in the category of “ How to fight occupational fraud”. As we mentioned earlier in some cases it was not clear if the article or source should or should not be included into the category, since there were cases where it could belong into several categories. In these cases the articles or sources were categorized according to the focus of the article.

Traditionally the starting point of fighting occupational fraud has been that the crime has already been perpetrated, whereas according to the researched material the starting point should be how to prevent employees from committing occupational fraud, since it is also cheaper than detection and prosecution. (Máté et al. 2019, p.1225) So therefore it is important to research where it all begins, in the human mind: “In other words, when discussing the topic of fraud, we must inevitably bring in the human factor”. (Ramamoorti 2008, p.522)

According to the former president and Chief Executive of Association of Certified Examiners Toby Bishop, there are some common mistakes that companies make when it comes to preventing fraud. The biggest one is the common attitude that fighting fraud is no one’s responsibility; when it’s no one’s responsibility, it is easy to turn a blind eye, even when the risks are catastrophic. This also means that the risk-reduction opportunities are lost when there are no clear fraud risk goals or policies and fraud risks are undervalued because of human bias or inexperience. Also being overly reliant on fraud controls that are not fit for the purpose, ineffectivity in overseeing the management's anti-fraud programs and when companies confuse anti-fraud controls with the organizations operating effectiveness are common problems. (Bishop 2004, p.121-123)

Bishop (2004, p.121) also makes a point that different frauds should be fought against like different types of fires by firemen. He argues that otherwise there is the risk that you lose the sight of the big picture. He also categorizes the different types of fraud in three different categories of urgency: Potentially catastrophic, costly but non-fatal frauds and insignificant

frauds. Also Máté et al. (2019, p.1214) makes a point that occupational fraud is always unique and therefore fighting against it should be treated as an unique case and not to be fought with “universal” solutions.

4.6.1. Using Red-flags as a tool

With red-flags are meant facts that indicate that an individual has a bigger potential to commit occupational fraud or indicate that occupational fraud has been committed. The more red-flags are raised the bigger the probability that the individual will become a perpetrator or that he or she has already committed occupational fraud. Red-flags could be called risk-indicators or indicators of possible perpetrated fraud.

There are several so-called behavioural red-flags or warning-signs that usually hints that a person will commit or has committed occupational fraud. It is important to note that the existence of one or more red-flags does not automatically mean that occupational fraud has been perpetrated but as the Report to the Nation 2020-report stated, in 85% of the occupational fraud cases there were at least one behavioural red-flag, and in 49% of the cases there were multiple redflags that indicated that occupational fraud had been perpetrated. The most common behavioural signs/redflags were: no control of personal economy that is expressed in overspending, financial difficulties, too close relationship with a vendor or a customer, unwillingness to share duties, excessive defensiveness or suspiciousness towards other people, unethical behaviour in general and personal family problems. (ACFE 2020, p.49. See also Hendi 2013, p.360)

As there are behavioural red-flags there are also economic red-flags that indicate suspicious activity, and in table 3. that is based on Crawford & Weirich (2011, p.356-359) article gives examples of red flags that point out that financial reporting fraud (one of the main types of occupational fraud) has been perpetrated.

Table 4. Type and red-flag that indicates financial reporting fraud (Author's own composition that is based on the article of Crawford & Weirich 2011, p.356-359).

TYPE	RED FLAG
Earnings exceed cash flow	Reporting good results but being short of positive cashflow
Unusual end of period activity	Sudden increased activity and dramatic improvements on the operating results at the end of the reporting period
Deteriorating accounts receivable aging or excessive credit memo activity	There is a lot of outstanding receivables that still are waiting for payment and unusually high credit memo activity in certain accounts
Accounts receivable	Looking at the company and the previous sales and payment history; does the reported numbers support what has occurred at the company and does it make sense?
Inventories	Inventories increase even if the sales slow down or are stable
Fixed assets and other assets	Unexplainable increasing balance in fixed and and other assets
Liabilities	The reported balances and the aging of accounts payable does not make sense
Income statement	Revenue is improperly reported
Review of bank reports-collateral reports and loan covenant compliance certificates	Manipulation of financial reports and statements to get better borrowing base
Disclosures	False or misleading information in footnote

So in other words, the signs of occupational fraud are there in the form of red-flags, but the question is if the organisation is able to see the red-flags and if so, will it turn a blind eye to it or will it do something about the perpetrated or planned crime.

4.6.2. Graph-based anomaly detection

In fighting some types of occupational fraud, especially in financial statement fraud, you can use statistical algorithms and so called artificial intelligence (for example logistic regression and artificial neural networks) to prevent and detect suspicious or fraudulent behaviour.

(Perols 2011, p. 20). Using a multiplex network is key since using a singular view is not enough, the reason being that human behaviour and interaction is complex and can not be measured by using only one measurement. (Pourhabibi et al. 2020, p. 12-13) In coherence with this, using several different databases to make graph mining models that can predict and discover fraudulent behaviour or activity is an effective tool in fighting economic crime (Robinson & Scogings 2018, p.14). The problem is that the databases are not always accurate, which means that in turn the conclusions of the analyzes is not always accurate (as we already established earlier in part 3.2 and 4.3).

4.6.3. The role of law in fighting occupational fraud

Law had the least occurrence in the articles about occupational fraud which could reflect that the significance of legislation in fighting occupational fraud has not yet been greatly acknowledged (see figure 12). Usually crimes that are perceived as a great threat to society are countered with very specific legislation and have very clear punishments for breaking the law. So we can draw the conclusion that occupational fraud has not so far been considered a great threat to the state and the economic system.

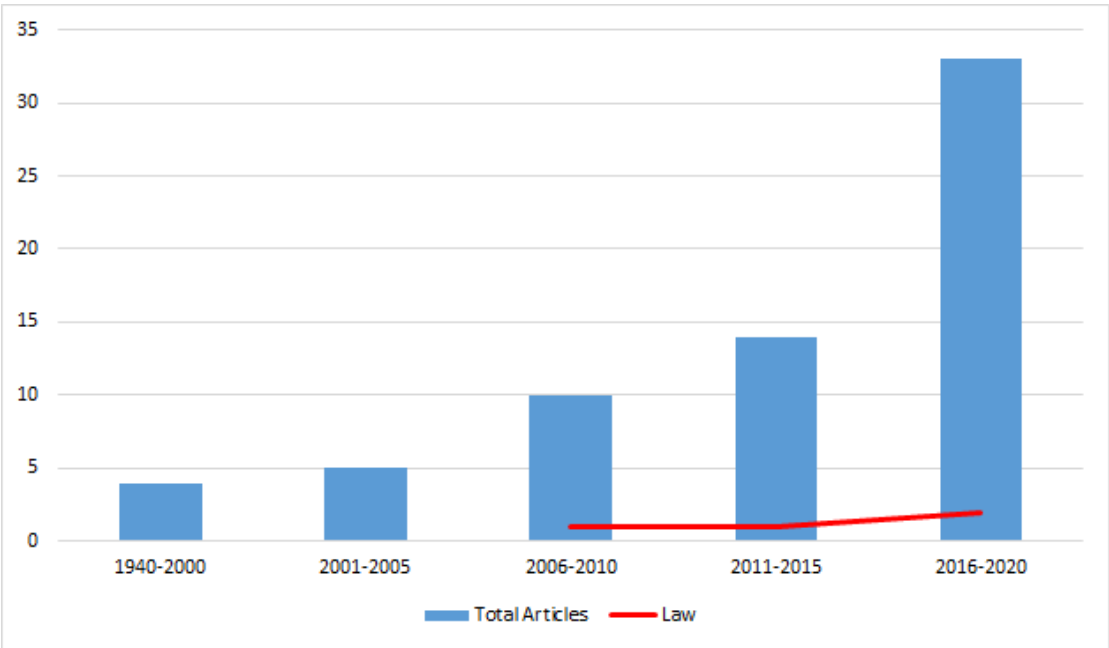


Figure 12. Chart on the frequency of articles about Law in the collected material (Author’s own composition).

The rules of the society are defined by laws that are guarded and enforced by different institutions of the state. Occupational fraud is considered to be illegal activity, which means that a person committing occupational fraud is breaking the law. So up to date legislation that is countering occupational fraud and economic crime is of great importance. (Máté et al. 2019, p.1218-1219) A similar function has the law-department or the lawyer of the company, more commonly called corporate counsel. The corporate counsel plays an important role in any anti-fraud measures for an apparent reason; since he, she or they are responsible for verifying that the agreements and actions of the company and employees follow the compliance policies of the company, state and international regulation. (Crawford & Weirich 2011, p.348-349)

It is also very important that if a crime is committed, in this case occupational fraud, there will be a proper punishment for the offence. But at the moment, it is very rare that a publicly traded company would want a criminal prosecution when an employee has committed occupational fraud. Currently it is more common that the company settles for internal disciplinary measures. (Soltes 2019, p. 928 and ACFE 2020, p.2020) This could be explained by the attitude of the companies that the court is not the place to deal with this type of crime since according to them the courts don't have the expertise and tools to handle the complexity of occupational fraud crimes and because of possible negative reputation implications for the company as a consequence of a public prosecution. (Smieliauskas et al. 2018, p.437)

One big trend that could be seen from the research material was the insignificance of the public law enforcement in dealing with economic crime (Button et al. 2015, p.162): "One of the themes that emerged from the research was the diverse and growing range of private sector sanctions deployed to deal with fraud in the absence of an adequate state response." In other words, there is a growing trend of privatizing the public law enforcement (Soltes 2019, p. 933). This is due to the fact that in many countries the police who handle economic crimes don't have enough funds to investigate all reported and suspected cases of occupational fraud (and economic crime in general). (Button et al. 2015, p.164)

The consequence of privatization of law enforcement could be that the traditional guarantee of equal justice would deter when the commercial influence would grow too big. Private law enforcement could also deter the consistency in the ruling of law in economic crime cases. (Button et al. 2015, p. 170) The careless attitude towards economic crimes is well reflected in the fact that there are no whatsoever programs for rehabilitation of individuals who commit fraud crimes. (Button et al.2015, p. 170)

As a consequence of globalization and digitalization of the society and economic sphere, also criminality has moved to the digital world where it takes advantage of unlegislated space (Vilks & Kipane 2018, p.2865): “A sufficiently large proportion of crime, especially of an economic and financial nature, becomes latent, 'invisible' and is not reflected in criminal statistics. Criminal expressions are moving to a digital environment where the identification of individual offenses is difficult and they are not qualified as criminal.” In other words, an unlegislated digital world creates a possibility and a considerable threat to commit occupational fraud or perpetrate different types of crimes without legislative consequences.

4.6.4. The importance of the HR-department and company culture in preventing occupational fraud

The role of the HR-department (Human Resources) in preventing and fighting occupational fraud is vital, since the HR-department does the recruitment of new employees, and takes care of the employment relationship during the whole lifespan of the employment. By doing a thorough scan of the applicants (checking degree certificates, calling former colleagues, verifying that stated previous jobs are accurate, checking crime registers to verify that an applicant hasn't been convicted for economic crimes or crimes that could jeopardize the trustworthiness of an applicant). This underlines the importance of the recruiting process since that affects what types of people work in the organization and according to the research made by Johnson et al. (2019, p.184) proactive people are more inclined to blow the whistle when detecting fraudulent behaviour in colleagues, which is for obvious reasons valuable for

the organization. The HR also plays an important role in creating a healthy and ethical company culture that has structures and policies for whistle-blowing and fair award programs. (Nawawi & Salin 2018, p.896 and Ramamoorti 2008, p.531) This is important since unclear or different guidelines between departments creates confusion and a good environment for committing occupational fraud and a possibility of disguising it as a human mistake or misunderstanding when revealed. (Nawawi & Salin 2018, p.902)

It is largely acknowledged that humans are partly results of their surrounding environment. In other words it is not insignificant where and with whom you work with since the people who you work with affect how you think and perceive the world, therefore the company culture has a vital role in increasing or decreasing fraudulent behaviour: “Consequently, corporate cultures can guide employees to “right” behaviour; or in other words-this is how we do things in this company.” (Watson 2003, p.51) Wright (2017, p.27) goes as far as stating that company culture is the most important tool in fighting occupational fraud (above any given legislation or internal control): “An “internal monitor” setting moral boundaries for acceptable behaviour is the best defence against fraud and failure and ultimately more reliable than rules and structures, essential though these undoubtedly are.”

Since companies are still mostly top-down managed, also the culture of the management board plays an important role in setting the tone on what is considered acceptable and what is not. (Ramamoorti 2008, p.529) It is also important to notice that occupational fraud that is committed by either the CEO or CFO or in collusion by these two actors creates the biggest losses for businesses. (ACFE 2020, p.38 and 46) Therefore it is not so surprising that through good governance the possibility of occupational fraud is much smaller than in companies with bad or sloppy Corporate governance policies. (Máté et al. 2019, p. 1226 and Johnson et al. 2019, p. 191)

Not only the employers and employees play an important role in detecting potential occupational fraud schemes, but also the stakeholders can play an important role in this: “Stakeholders can play a significant role in fraud detection and there is evidence that firm

stakeholders can detect corporate fraud. Dyck et al. (2010) show that firm stakeholders are powerful whistle-blowers against fraud and can provide useful information to help investigators detect fraud when there are monetary benefits to serve as a reward for whistleblowing. “(Ozili 2020, p.96)

4.6.5. Corporate Social Responsibility

Recent big financial scandals of corporate misdeeds during the 21st century have provoked a movement that demands a higher ethical and moral behaviour from corporates and that corporates admit their big influence on societies and on both local and global economy.

Corporate Social Responsibility (shortened CSR) has been created to answer these demands. CSR is a decision making model where corporate decisions are directed by ethical values, respect for legal standards, believing in sustainable economy and society growth and social welfare. (Rodgers et al. 2015, p.873. See also Harjoto 2017, p.762.)

According to Harjoto (2017, p.764) there is a lot of research that reveals that a higher ethical culture is usually measured by higher CSR score, which indicates that a corporation with a higher CSR score has a smaller risk of becoming a victim of occupational fraud, because the organizational culture does not support fraudulent behaviour.

4.6.6. The role of education, training and research in fighting occupational fraud

It is important to raise awareness within the company of what fraud is and what the consequences of it has to the perpetrator, company and society, since it reduces the possibility of committing fraud. In the research material it came out clearly that the importance of educating forensic accountants and fraud investigators can not be overstated, since in many cases they are the only ones who have the skill to see the fraudulent pattern of the perpetrator

and therefore are the only who are able to point out the crime. (Hendi 2013, p.354, 356, 361-369 and Ramamoorti 2008, p.521) And as Ozili (2020, p.93) states:

“Another factor that encouraged the growth in forensic and fraud research is the lack of confidence among investors about the reliability of information disclosed in the financial reports of large and complex organisations. The more complex the operations of large firms, the more difficult it is to detect financial and non-financial fraud once it has been committed, and the greater the need for the services of forensic accountants or investigators to help companies expose fraud hidden in accounting numbers and to trace fraud to the perpetrator.”

Therefore the importance of skillful auditors and fraud examiners is apparent and according to Kabuye et al. (2017, p.924) it is also important that they enjoy the respect of the management since if the management respects and values the work of the fraud examiners, then the employees follow the given example of honest behaviour. Fraud examiners should not only be good in numbers but also good with people, since there are people behind the numbers. Through interviews a skilful fraud examiner or forensic accountant can get hints on what is actually going on in a company and can detect possible incoherencies in the economic statements and the answers of employees or employers. (Ozili 2019, p.96) This just underlines the importance that the person who investigates a possible or occurred occupational fraud should not only be good with financial issues, but also be an individual who is able to read people and understand unsaid motives. (Hendi 2013, p.367-368 and Moore 2018, p.260) This just underlines the importance of previously mentioned knowledge in psychology (in other words how the occupational fraudster thinks and acts).

Internal monitoring and ethics control are very effective ways to prevent fraud, which means that through company culture and awareness-training, occupational fraud can be countered in a very cost effective and powerful way. (Wright 2017, p.27. See also Rodgers et al. 2015, p. 873) Watson (2003, p.52) underlines the importance of that companies have a well-formulated awareness program about what fraud is, the reason for this is simply that the lack of knowledge amongst personnel and the lack of guidelines about what fraud is and how to deal with it when encountered creates a window of opportunity for possible fraudulent behaviour. (See also Smieliauskas et al. 2018, p. 438) This is also supported by ACFE:s Report to the Nation (2020, p.21) that states: “Organizations that had fraud awareness training programs were more likely to gather tips through formal reporting mechanisms (56% tips with training

and 37% tips without training) and also increased the overall likelihood of tipping (48% with training and 38% without training).”

4.6.7. Whistleblowing

Whistleblowing is a figurative reference to the action of blowing the referee whistle when witnessing something that breaks against the law of a country or agreed rules of the organization. According to Nawawi & Salin (2019, p.264) whistleblowing is an example of prosocial behaviour: A person makes efforts to safeguard the wellbeing of the organization against any fraudulent or organization harming activity through whistleblowing. This is supported by the definition by Near & Miceli (1985, p.4): “We, therefore define whistle-blowing to be the disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action.”

According to Smaili & Arroyo (2017, p.95 and p.97) whistleblowers are not only insiders (people who are working for the company or are shareholders in it) but also outsiders (people who are not directly employed by the company, such as auditing companies, politicians, customers and investors and the like). With the same logic the whistleblowers are also categorized as an internal or external whistleblower according to the reporting channel (recipient of the complaint). In other words if the whistleblower informs a person about fraud or misconduct within the organization it is considered to be an internal whistleblower. If the person informs an external body about the misconduct, it is considered to be an external whistleblower.

Recently it has become more accepted to blow the whistle when witnessing criminal activity in companies, whereas in the past it was considered a professional suicide and there was no high regard for whistleblowers, whereas nowadays they are considered to be somewhat of heroes who fight against wrongdoing. (Feldman & Lobel 2010, p.1158-1159. See also Nawawi & Salin 2019, p.263)

Interestingly a person giving a tip about fraudulent behaviour is the most common detection method (43% in the cases of detected occupational fraud cases) which is followed by internal audit (15%) and management review (12%). The occupational fraud schemes that were detected by tip came 50% from employees and 33% of the cases were revealed through telephone hotline or email. Organizations with hotlines detect 49% of the occupational frauds with a tip, whereas if the organization didn't have a hotline the equivalent was 31%. (ACFE 2020, p.18-21)

So what affects if a person becomes a whistleblower or not? Smaili & Arroyo (2017, p.100-101) noticed two factors in their research about what affected whistleblowing behaviour:

In the case of whistleblowing, we note two types of dissonance in whistleblowing behaviour, one between the act of whistleblowing (behaviour) and the awareness that one's job could be in jeopardy (cognition), and the other when the individual decides to blow the whistle knowing that other stakeholders (employees and shareholders) will suffer financial consequences as a result of that behaviour (whistleblowing). In both cases, the whistleblower may feel discomfort because of the dissonance between his or her behaviour (whistleblowing) and its unwanted potential consequences.

So therefore having a clear whistleblowing policy is important but even more important is that those policies work not only in theory but also in real life. (Wright 2017, p.25) As Feldman & Lobel (2010, p.1154) concluded in their research, a big problem is that legal incentives for whistleblowing are ill-designed and can even be counterproductive. This obviously affects the attractiveness of whistle-blowing.

According to research made by Feldman & Lobel (2010, p.1179) monetary rewards for whistleblowing can surprisingly have a strong counterproductive effect. It seems that fines interfere with an individual's morals and creates an attitude that just the perpetrator pays the fine, it's ok to bend the rules sometimes. In other words, if there would not be a fine, individuals would follow the rules more strictly than when they get fined when breaking the rules. (Feldman & Lobel 2010, p.1182)

Nawawi & Salin (2019, p.270-271) made a research about what affects whistleblowing in a Malaysian company context and according to their results there is a clear parallel between

fear of retaliation and the willingness of becoming a whistleblower. The lack of anonymity of the whistle-blower, lack of rights of the whistleblower and fear that the authority in the organization will not take action when informed strongly affect the motivation to become a whistleblower. In short, fear and faith in the whistleblowing programs greatly affect how willing individuals are to blow the whistle.

So in other words, whistleblower anti-retaliation protection programs of the company or the country play a big role in how eager individuals are to become whistle-blowers in the event that they would want to report fraudulent behaviour in the organization. Individuals may stay silent even if they detect fraudulent behaviour in fear of physical, economic or mental harm that may be caused by the perpetrator who may be a senior or superior to the whistle-blower. (Nawawi & Salin 2019, p.261-263, Smaili & Arroyo 2017, p.112)

4.6.8. Segregation of tasks and internal audit

According to the research material there is a strong case in the importance of segregation of tasks and to have strong internal controls to avoid occupational fraud. (Crawford & Weirich 2011, p.350. See also Anindya & Adhariani 2019, p.553; Moore 2018, p. 257-258; Nawawi & Salin 2018, p.902; and Rodgers et al. 2015, p.874) The lack of internal controls can cause big damage to the organization, since one third of perpetrated occupational fraud were estimated to be caused by lack of internal control. (ACFE 2020, p.5.) With weak internal control and non existing segregation of tasks, there is a bigger opportunity of committing occupational fraud. (Moore 2018, p. 257)

The risk for occupational fraud is especially big in small businesses where usually one person is responsible for several different tasks, which in turn means that segregation of different financial tasks is non-existent and the conflict of interest is apparent. (Moore 2018, p. 249) Also the fact that small businesses don't afford to have costly anti-fraud measures, makes them even more vulnerable to becoming victims of occupational fraud. (Moore 2018, p. 270) And as ACFE (2020, p.36.) present, in small companies (with max.100 employees) 12% of

occupational fraud cases is done by overriding the internal controls whereas in bigger companies (over 100 employees) 20% of the occupational fraud cases is done by overriding the internal controls.

Collusion between perpetrators is as already mentioned in earlier sub-chapter (4.5.2) also a very problematic phenomenon from an internal control perspective, since the perpetrators can override the internal control systems. (Moore 2018, p.250-251) It is important to note that managers present a considerable big threat of overriding existing controls (22%), whereas owners and CEO:s (17%) and employees (15%) do not have the tendency of overriding the internal controls. (ACFE 2020,p. 36)

When the auditor is alarmed or aware of fraudulent behaviour, they are more inclined to detect details that point to fraud than when they are just auditing a company without knowledge about perpetrated crime. (Wilks & Zimbelman 2004, p.723) This creates the illusion of that if everything seems legitimate at the company, everything is as it should be. This attitude could be a contributing factor why occupational fraud has been discovered so rarely in internal and external audits (15% and respective 4% of the reported cases). (ACFE 2020, p.19) Ramamoorti (2008, p.526) states quite fittingly: “Absence of evidence is not evidence of absence”.

4.7. Summary of results

We can conclude that fighting occupational fraud is a complex matter that needs the attention of the whole organization and that starts from the attitude and culture of the company. The fact that the organisation has one or more counter fraud policies does not make the organisation safe from occupational fraud since there are many hazards that make the anti-fraud policies and measures ineffective.

From figure 14 we can see the category trend of the data used in this thesis and that were published between 1940 and 2020. We can conclude that it shows the change of how

occupational fraud has been historically perceived and that with the pass of time the versatility and impact of occupational fraud has been acknowledged.

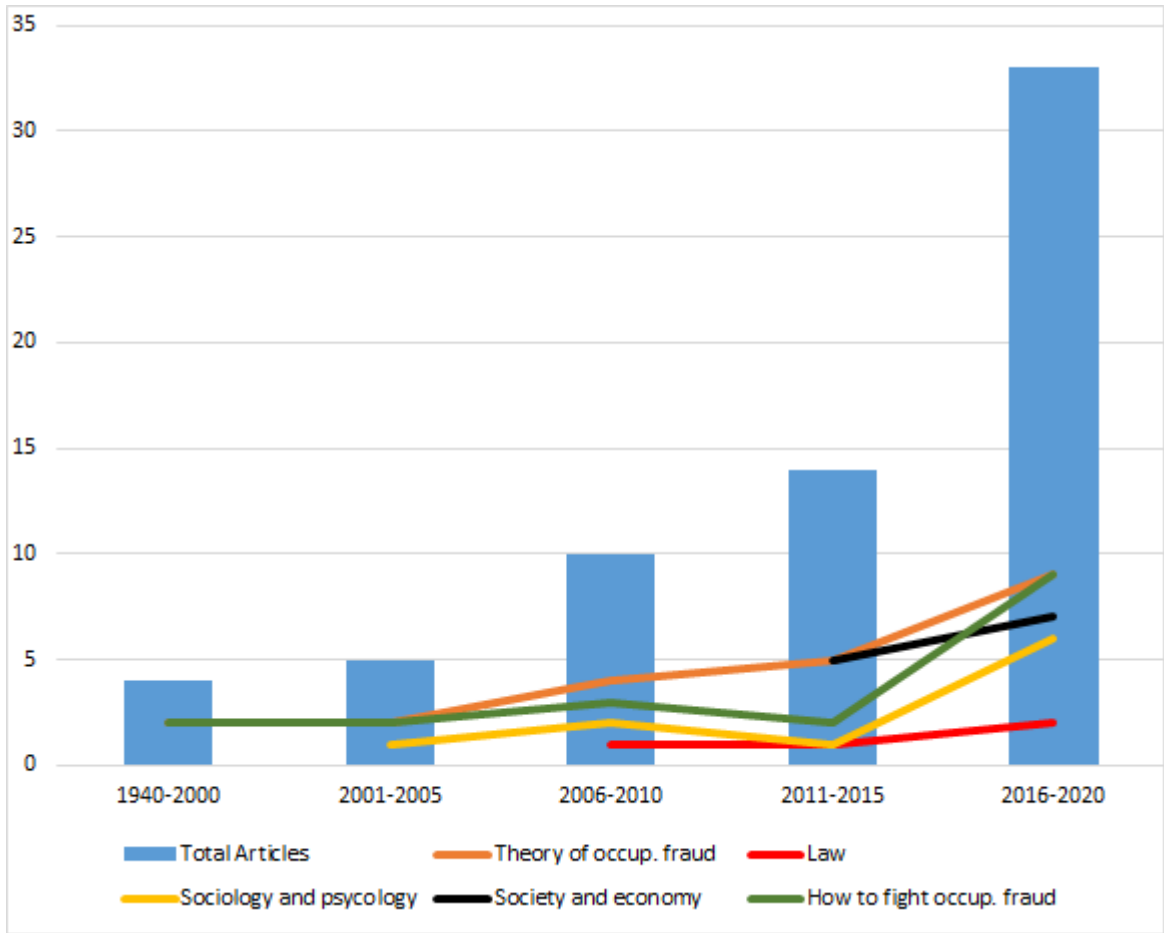


Figure 13. Chart of articles according to frequency of category and time of publishing (Author’s own composition).

There are many different definitions on what occupational fraud is, which is problematic since it gives room for interpretation about what is legal and what is not. The situation is not made easier by the fact that even academics and business professionals can talk about occupational fraud and call it fraud. A big problem for researchers is the big variation of definitions for occupational fraud and different recording practices of occupational fraud cases which has resulted in unreliable data. Also the difficulties to access registers and case databases due to the delicate nature of the crime has caused deranged results that don't give a realistic picture of the costs, frequency and effects of occupational fraud. There was also an interesting division between the research material if trying to perpetrate occupational fraud is enough or

if the perpetrated crime also has to cause economic losses for the company to be considered occupational fraud.

From the collected material we can draw the conclusion that the importance of fighting occupational fraud has been acknowledged after being ignored for a long time. Also it came out very clearly that the misconceptions on who can and who commits occupational fraud has to be revised. According to the material the average perpetrator is usually a male between 31-45 years of age and has several years experience in the industry. They don't have a previous crime record and the higher their education level is, the bigger losses they cause for the company. This does not mean that women or individuals with lower education would not perpetrate or succeed in perpetrating occupational fraud.

With the passage of time there have been created many different models that try to explain why people would commit occupational fraud. The ground stone to these models is the Fraud Triangle by Cressey (1953) which later researchers and professionals in the field of fighting economic crime have developed further and challenged. The models have been for a long time individual centric which is problematic since perpetrators can also collude with other individuals and it has been proven that when occupational fraud is committed in collusion, it is significantly more destructive for the victims.

It is widely acknowledged that company and management culture plays an important role in creating either a healthy or unhealthy culture where occupational fraud either becomes a part of the organisational culture or it is destroyed before it even has the chance to grow. Here plays an important role the Human Resources-department, the legislation on a national and international level, different education and research programs on occupational fraud, the segregation of tasks within the company and working hotlines for reporting criminal activity and whistleblower programs.

5.DISCUSSION

Occupational fraud belongs to the category of economic crimes, or white-collar crimes as it is also known, has traditionally not been considered to be a real threat to the society and to the business world, which also correlated in the frequency of how often occupational fraud was dealt with both from a micro- and macroeconomic point of view in the articles. But that view has been challenged during recent years by economic academia, forensic accountants and fraud examiners, and currently there is a consensus within the economic field that occupational fraud is the most costly of all crimes.

To find an answer to our first research question “How is occupational fraud defined in a business context”, is not as simple as you would imagine. Occupational fraud is a versatile and complex phenomena that has been described in very different ways even by scholars and experts. This has created confusion on the definition of what occupational fraud is. Even the term occupational fraud was not widely and coherently used which in turn creates the opportunity to commit fraud in the shadow of the unclear definitions. This was not made easier by the fact that the databases and archives where economic crimes are recorded are usually marked classified or restricted, has the result that researchers and fraud examiners struggle to get their hands on reliable data. It is also important to note that many cases of occupational fraud are not even registered anywhere because of lacking recording practices or because the companies do not report the crime.

Quite surprisingly I could not find a coherent answer to if causing damage is a criteria to occupational fraud, since in some articles the cause of damage for the organisation was required to be defined as occupational fraud whereas in others only the intention was enough to be considered occupational fraud.

After going through the research material it is clear that the works of Sutherland (1940 and 1949) and Cressey (1953) have had a significant impact on the field of fraud and forensic accounting research, especially on the theory that tries to explain why individuals perpetrate

occupational fraud. This was supported by the amount of articles that mentioned Sutherland and Cressey or based their new theory on these authors' theories. There were also articles that challenged the Fraud Triangle or challenged a part of the theory, but all the same it just underlined the significance of the theory.

The newer the article, the more emphasis was put on the economic significance of the consequences of occupational fraud as a crime. It has also been widely acknowledged that only an accounting, technical or theoretical approach is not enough to fight occupational fraud and the current view is that a “softer” approach such as psychological and sociological approaches is more effective in preventing occupational fraud. So in other words, the focus has to be put where it begins, in the mind of the potential perpetrator and the structures that support and nurture it. So it is clear that the second research question “Why do individuals commit occupational fraud?” and the third research question “What kind of measures are there to fight occupational fraud?” are closely tied together. This was reflected clearly in the frequency of articles that tried to understand the fraudulent mind and through that fight occupational fraud. Since occupational fraud is committed by humans, the issue of occupational fraud is a complex matter and has elements from several different fields that include sociology, psychology, criminology, economic theory, finance and auditing.

There is clear evidence that company culture is an important factor that affects the tendency of individuals to perpetrate fraud, which is an interesting find from the point of view of our second research question, “Why do individuals commit occupational fraud?”. It is very important to have a committed management that enforces and is committed to the anti-fraud measures and that it acts as the spokesperson for the anti-fraud measures and culture. The HR-department is also an important player in creating a healthy company culture, that keeps away mischievous individuals who could “poison” the company culture. Both the management and the HR-department plays a key role in creating a zero-tolerance policy towards occupational fraud for the company and to establish that it is everybody’s business to inform (whistleblowing) superiors and authorities about suspicious economic activity. (Watson 2003, p.51) This is an important point since as we could conclude from the research

material, opportunity is one of the most important triggers of fraudulent behaviour. (Homer 2020, p.179 and Smieliauskas et al. 2018, p. 438)

The HR-department gets its justification for the HR-guidelines by the corporate counsel that guards the company's activity from a legislative point of view. For the corporate counsel to be able to properly guard the rights of the company, it needs legislation that gives it tools to intervene properly in cases of fraudulent behaviour of individuals working for the company. (Máté et al. 2019, p.1218-1219)

This means that both national and international legislation has to be up to date, the law enforcement has to be on the clear on what is wrong and what is right and that there are clear consequences for economic crimes and that it makes sense for employees and the company to report (whistleblow) fraudulent behaviour to authorities and that there is not a possibility for retaliation of the perpetrator that has been caught. (Nawawi & Salin 2019, p.261-263, Smaili & Arroyo 2017, p.112)

Wolfe & Hermanson (2004, p.38) model speaks for the fact that people with higher education are also the ones who cause bigger losses for companies than those who aren't that highly educated. The rationale being that those who have higher education and are in higher positions within the company also have bigger capability to commit occupational fraud. This was also supported by Report to the Nation 2020-survey (ACFE 2020). This doesn't of course mean that individuals with low education could not cause big damage, since there are also individuals with lower education that are capable of committing and covering up the tracks of the crime because of personal traits and wit that are needed for success in perpetrating occupational fraud. (Free 2015, p.185 and ACFE 2018, p.35 and 2020, p.48)

It is noteworthy that research and fighting occupational fraud has been in the past individual focused, whereas lately the power of collusion has been acknowledged. This is important since internal controls usually are focused on guaranteeing that work tasks are segregated from each other to prevent economic crime. Collusion means that even if the different work

tasks would be segregated, they could be overruled by perpetrators who are committing occupational fraud in collusion. (ACFE 2018 and 2020) This also underlines the inefficiency of older Fraud-models that are very individual focused. This was obviously an important find for our third research question “What kind of measures are there to fight occupational fraud?”.

The results of this research underlines the importance of interdisciplinary cooperation between companies, academics and authorities in fighting and researching occupational fraud. And as Máté et al. (2019, p.1225) stated it is more cost effective to put efforts to prevent employees from committing occupational fraud than to investigate and prosecute perpetrators after the crime has been perpetrated. This is embodied in the fact that the focus in fighting occupational fraud has lately shifted from investigation-focused to prevention-focused.

The frequency of legislative solutions towards fighting occupational fraud in the articles showed the stubbornly ignorant attitude of the authorities and public entities towards occupational fraud and economic crimes in general. This was manifested in that the legislative and law enforcement that work with economic crimes are still very underfunded. After the economic crises and misdeeds of the 21th century there has been some legislation that tries to fight economic misbehaviour on the company level, but to date it has still stayed quite ineffective or even counterproductive. (Maté et al. 2019. Smieliauskas et al. 2018 and Feldman & Lobel 2010)

6.CONCLUSION

Occupational fraud is clearly not a threat only to the companies where the perpetrator or perpetrators work, but a threat to the whole society, because it deteriorates the society structure from within, like a cancer. For a long time the significance and destroying power of occupational fraud has been ignored, but recently the importance of occupational fraud has been commonly acknowledged.

There exists a big variation of definitions of what fraud is, which has created problems in being able to categorize and record the perpetrated crime. This in turn has distorted crime statistics which in turn gives a wrong picture of the amount of perpetrated economic crimes and the consequences of it. The answer to the first research question “How is occupational fraud defined in a business context?” is that there are many similar definitions to occupational fraud in a business context, but they have different emphasis.

According to the research material, to be able to prevent an individual from perpetrating occupational fraud (research question number three), it is a good idea to try to understand the motives behind the crime (research question number two). It has been much theorized about what affects an individual to commit occupational fraud and there have been created models that emphasise different factors. Most popular triggers in the different models are pressure, opportunity, rationalization, capability and culture. One important finding of this research was that individual focused models and prevention schemes is not enough, since the possibility of collusion between several individuals is an apparent risk, and a costly one. Also the realization that anyone can commit occupational fraud, not only highly educated middle aged men, even though they are overrepresented in the statistics.

According to the articles that have been used as material, the most important ways to prevent, counter and reveal cases of occupational fraud are up-to-date national and international legislation in the form of effective whistleblower programs that protect the whistleblowers and punish the perpetrators, cooperation between companies and institutions to avoid information gaps, a healthy organizational and national culture that stops mischievous behaviour in its tracks, acknowledging the role of Human Resources in preventing and revealing fraudulent behaviour, the importance of anti-fraud training and educating employees and employers to a code of conduct, the strict segregation of tasks and strong internal audit that looks for occupational fraud even if there is no reason to believe that a crime has been perpetrated.

6.1. Ideas for further research

Following I will suggest some ideas for further research on the topic of occupational fraud. As my research focused only on occupational fraud in a business context, it would be interesting to know what attitude differences there are between the private and the public sector towards occupational fraud. It would also be very interesting to get more empirical insight on how legislation and different punishments affect the willingness of an individual to perpetrate occupational fraud. More research on the link between narcissism and industrial or corporate psychopathy in the tendency of perpetrating occupational fraud would also be very useful for the field of occupational fraud examination and research. According to me there would also be a demand for finding out how opportunity acts as a trigger for committing occupational fraud in individuals who do not have a clear economic incentive to perpetrate crime.

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APPENDICES

Appendix 1. Reference list of articles used in the structured literature review

NR	Category	Main theme	Description of content	Author and Publication Year	Is also in another category
1	Theory of fraud	Definition	Different ways to fight fraud and def.of fraud	Ozili 2020	How to fight fraud
2	Theory of fraud	Definition	Whistleblowing and the def. of fraud	Smaili & Arroyo 2017	How to fight fraud
3	Theory of fraud	Definition	Explanation of fraud and corp.counsel	Crawford & Weirich 2011	Society and economy
4	Theory of fraud	Basic theory	Explanation of fraud and corp.counsel	Moore 2018	
5	Theory of fraud	Basic theory	The psychology of fraud	Ramamoorti 2008	Sociology and psychology
6	Theory of fraud	Basic theory	The psychology of fraud	Ramamoorti et al. 2009	Sociology and psychology
7	Theory of fraud	Basic theory	Opportunity as the biggest fraud factor	Anindya & Adhariani 2019	
8	Theory of fraud	Basic theory	Different ways to fight fraud and def.of fraud	Free 2015	
9	Theory of fraud	Basic theory	White Collar crime	Sutherland 1940	
10	Theory of fraud	Basic theory	White Collar crime	Sutherland 1949	
11	Theory of fraud	Basic theory	Testing the fraud triangle	Homer 2020	

NR	Category	Main theme	Description of content	Author and Publication Year	Is also in another category
12	Theory of fraud	Basic theory	Determinants and consequences of Whistleblowing	Nawawi & Salin 2019	
13	Theory of fraud	Basic theory	Fraud square	Cieslewicz 2010	
14	Theory of fraud	Basic theory	Report to the nations 2018	ACFE 2018	How to fight fraud
15	Theory of fraud	Basic theory	Report to the nations 2020	ACFE 2020	How to fight fraud
16	Theory of fraud	Basic theory	Economic variables on fraud-Developing countries	Omidi et al. 2017	Society and economy
17	Theory of fraud	Basic theory	Fraud as a whitecollar crime	Smith et al. 2011	
18	Theory of fraud	Basic theory	Developing a blueprint for forensic accountants	Hendi 2013	Society and economy
19	Theory of fraud	Basic theory	Fraud diamond	Wolfe & Hermanson 2004	
20	Theory of fraud	Basic theory	Different models on occupational fraud	Dorminey et al. 2010	
21	Theory of fraud	Basic theory	Different models on occupational fraud	Dorminey et al. 2012	
22	Theory of fraud	Basic theory	Accounts manipulation, Literature review	Stlowy & Breton 2004	
23	Law	Law	Legislative view on incentives for Whistleblowing	Feldman & Lobel 2010	How to fight fraud
24	Law	Sanctions	Private sanctions for fraud and their implications for justice	Button et al. 2015	How to fight fraud

NR	Category	Main theme	Description of content	Author and Publication Year	Is also in another category
25	Law	Law/governance	Law, governance and accountability	Máté et al. 2019	Society and economy
26	Law	Law/law enforcement	Corporate misconduct, public vs. Private	Soltes 2019	Society and economy
27	Sociology and psychology	Corporate culture	How corporate culture affects fraudulent behaviour	Watson 2003	
28	Sociology and psychology	Corporate culture	Corporate social responsibility	Rodgers et al. 2015	Society and economy
29	Sociology and psychology	Corporate culture	Corporate social responsibility	Harjoto 2017	Society and economy
30	Sociology and psychology	Corporate culture	The role of Personal characteristics in committing fraud	Johnson et al. 2019	
31	Sociology and psychology	Corporate culture	How corporate culture affects the possibility of fraudulent behaviour	Kumar et al. 2018	Society and economy
32	Sociology and psychology	Basic theory	The psychology of fraud	Ramamoorti 2008	Theory of fraud
33	Sociology and psychology	Basic theory	The psychology of fraud	Ramamoorti et al. 2009	Theory of fraud
34	Sociology and psychology	Corporate Psychopathy	Corporate Psychopathy and white-collar crime	Lingnau et al. 2017	

NR	Category	Main theme	Description of content	Author and Publication Year	Is also in another category
35	Sociology and psychology	Ethics in accounting	Misleading forecasts in accounting estimates	Smieliauskas et al. 2018	
36	Sociology and psychology	Methods	Internal control as a prevention method against fraud	Nawari & Salin 2018	How to fight fraud
37	Society and economy	Trust	The significance of trust triangle	Dupont & Karpoff 2018	
38	Society and economy	Cost of fraud	Consequences of fraud for the society	Cohen 2015	
39	Society and economy	Cost of fraud	Measuring cost of fraud	Button et al. 2012	
40	Society and economy	Cost of fraud	Consequences of fraud for the society	Vilks & Kipane 2018	
41	Society and economy	Law/governance	Law, governance and accountability	Máté et al. 2019	Law
42	Society and economy	Law/law enforcement	Corporate misconduct, public vs. Private	Soltes 2019	Law
43	Society and economy	Corporate culture	Corporate social responsibility	Rodgers et al. 2015	Sociology and psychology
44	Society and economy	Definition	Explanation of fraud and corp.counsel	Crawford & Weirich 2011	Theory of fraud
45	Society and economy	Corporate culture	Corporate social responsibility	Harjoto 2017	Sociology and psychology
46	Society and economy	Corporate culture	How corporate culture affects the possibility of fraudulent behaviour	Kumar et al. 2018	Sociology and psychology

NR	Category	Main theme	Description of content	Author and Publication Year	Is also in another category
47	Society and economy	Basic theory	Economic variables on fraud-Developing countries	Omidi et al. 2017	Theory of fraud
48	Society and economy	Basic theory	Developing a blueprint for forensic accountants	Hendi 2013	Theory of fraud
49	How to fight fraud	Sanctions	Private sanctions for fraud and their implications for justice	Button et al. 2015	How to fight fraud
50	How to fight fraud	Methods	Different ways to fight fraud and def.of fraud	Ozili 2020	Theory of fraud
51	How to fight fraud	Methods	Different ways to fight fraud	Bishop 2004	
52	How to fight fraud	Methods	Different ways to fight fraud	Wright 2007	
53	How to fight fraud	Methods	Whistleblowing and the def. of whistle-blowing	Smaili & Arroyo 2017	Theory of fraud
54	How to fight fraud	Law	Law-point of view on incentives for Whistleblowing	Feldman & Lobel 2010	Law
55	How to fight fraud	Methods	Decomposition of fraud-risk assessment	Wilks & Zimbelman 2004	
56	How to fight fraud	Methods	Internal audit competence in preventing fraud	Kabuye et al. 2017	
57	How to fight fraud	Methods	Graph based anomaly detection	Pourhabibi et al. 2020	
58	How to fight fraud	Methods	Graph mining algorithm to find criminal activity	Robinson & Scogings 2018	
59	How to fight fraud	Methods	Identifying fraud using restatement information	Youssef & Saqib 2017	

NR	Category	Main theme	Description of content	Author and Publication Year	Is also in another category
60	How to fight fraud	Basic theory	Report to the nations 2018	ACFE 2018	Theory of fraud
61	How to fight fraud	Basic theory	Report to the nations 2020	ACFE 2020	Theory of fraud
62	How to fight fraud	Methods	Internal control as a prevention method for fraud	Nawari & Salin 2018	Sociology and psychology
63	How to fight fraud	Methods	Statistical and machine learning algorithms to detect fraud	Perols 2011	
64	How to fight fraud	Methods	Model of prevention and detection of fraud	Glover & Aono 1995	
65	How to fight fraud	Methods	Forensic accounting	Golden et al. 2006	
66	How to fight fraud	Methods	Whistleblowing	Near & Miceli 1985	