

The Fraud Triangle and Model of Criminogenesis

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Abstract: The fraud triangle (FT) predominantly focuses on individual perpetrators and ignores the complexity and diversity of causes of delinquency in business organisations. To this end, this article discusses the limitations of the FT in practice to analyse misconduct in the organisational context. The paper also provides suggestions to remediate conceptual weaknesses of the FT by addressing the realm of criminogenic antecedents facilitating, enabling and promoting illegal and unethical behaviour in organisational settings. In discussing the reasons as to why the FT fails to comprehensively explain the root-cause of misconduct displayed in businesses, this paper draws on relevant literature and theoretical perspectives on employee criminal and unethical conduct in the organisational context. The model of criminogenesis introduced in this article aims to evaluate the source of employee criminal and unethical activities. Thus, it reveals that employee behaviour is influenced by individual, organisational and environmental dynamics, including for instance: personality traits such as narcissistic, Machiavellian, and hubristic traits; criminogenic organisational settings; unethical organisational culture; poor leadership and social pressure. Employees lacking morality and self-regulation capabilities might be vulnerable to the influence of criminogenic forces, processes and conditions that increase individual propensity for unlawful and unethical practices. The general aim of the article is to contribute to the discussion on the causation of illicit and unethical acts carried out in, and by business organisations by connecting three different domains (environment, organisation, and individual) and addressing the effect of criminogenesis at the micro-, meso-, and macro- levels.

Keywords: Fraud Triangle, Anti-fraud Management, Intrinsic Criminogenesis, Criminogenic Antecedents

1. Introduction

For decades, the fraud triangle (henceforth: FT) model has been the mainstay for anti-fraud practitioners¹ in analysing the causes of occupational fraud, financial and corporate crime in businesses. However, it appears that FT is not suitable for fully understanding the causes of illegal and unethical behaviour in organisational settings [52]. The present article intends to address this void.

There is a considerable body of research and literature on the 'dark side' of business organisations [70], which has led to a diversity of theories regarding unethical and illegal conduct. These various theories suggest that the roots and causes of misconduct and illegal behaviour especially in organisational settings are multifaceted. A few well-established examples

include the concept of anomie [18], strain theory [47], white collar crime and differential association theory [65], neutralization theory [66], control theory [26], normalization of deviance [74], and rational choice theory [5]. Yet the perspective of practitioners relying on the FT presents a monolithic view of explaining fraud, which sets limits on understanding unethical and illegal activities in the organisational context [58]. When analysing occupational fraud, financial and corporate crime, practitioners often disproportionately concentrate their discussion on micro-level analyses (i.e. individuals), and only a few attempt to incorporate further domains, such as organisational culture and working environment [60]. A possible reason for the widespread focus on individuals as the unit of analysis is the belief that the unethical and illegal activities in and of business organisations are mostly orchestrated by individual perpetrators.

In this context, this article argues that the probability of misconduct arising in a business scenario hinges on the criminogenic variables harboured at the individual, organisational and environmental levels. This entails that an

1 The term encompasses compliance and ethic officers, forensic accounting practitioners, fraud examiners, financial crime investigators, and anti-fraud professionals.

anti-fraud strategy requires a multi-level approach in order to consider all the main carriers of criminogenesis, in addition to the interaction between those variables. The multi-level view for analysing the causation of crime is essential for the successful reduction of crime in the business context. Explanations of occupational fraud and corporate misconduct at a single level of analysis thus produce only a partial understanding of the phenomena involved. Consequently, this fractional explanation of unethical and illegal activities leads to a limited strategy for prevention and control, where the conventional anti-fraud activities employed by companies fail to recognize the main carriers and drivers of criminogenesis and the relationships between them [41].

2. The Fraud Triangle (FT)

2.1. The Essence of FT

The FT model was introduced by Joseph Wells [77], the founder of the Association of Certified Fraud Examiners (ACFE), and was heavily influenced by Cressey's research [13] focusing on the individual criminal offender prosecuted for embezzlement [52].

Wells [77] developed the concept of FT by connecting the field of fraud investigation and criminology. Accordingly, the causes of delinquency in businesses are explained as a combination of three elements which jointly lead to a high probability of fraud: (1) opportunity; (2) pressure and incentives; (3) attitude and rationalisation (Figure 1). The first element relates to the opportunity to commit fraud due to the absence of controls or flaws in the given internal control system. The second element indicates that individuals are more likely to engage in illegal activities, due to pressure triggers or incentives. The third cause to commit fraud relates to the attitude and capacity of perpetrators to rationalise their fraudulent actions. Under the conditions that these elements coincide, illegal activities are more likely to occur since perpetrators feel the temptation to indulge in fraudulent behaviour.

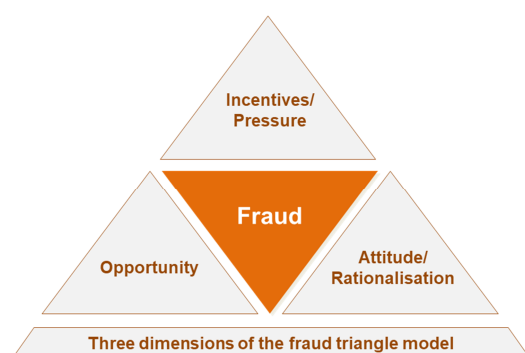


Figure 1. A graphical representation of FT as proposed by Wells [77].
Notes: This figure is adapted from Wells' [77] book titled "Occupational Fraud and Abuse", and shows the three elements that explain the causes of fraud.

Altogether, these three dimensions arguably provide at least some explanation as to why individuals engage in

illegal activities, though they still do not offer a full grasp of complex phenomena such as misconduct in organisational settings.

There have been further attempts in literature to further develop the FT model. Wolfe and Hermanson [83] for instance, perceive the FT as incomplete and suggest an alternative 'fraud diamond theory' by adding a fourth element of 'capability' to the triangle, in order to explain further the illegal behaviour displayed by individuals. This fourth 'capability' factor refers specifically to the personality traits of an individual, which emphasizes the individual's ability to carry out fraudulent activities. In accordance with this view, Yusof and Lai [84] suggest five components that represent capability for committing fraud: position, intelligence, confidence, coercion skills, and the ability to deal with stress.

Yet, these additions to the FT do not fully enhance the model, since the FT concept lacks a systematic approach for identifying and analysing the criminogenic antecedents of unethical and illegal behaviour in the organisational context. Furthermore, the fraud diamond model proposed by Wolfe and Hermanson [83] is less used in practice to evaluate fraud cases and to devise prevention approaches. This is likely to be due to the transitions from the 'fraud triangle' to the 'fraud diamond', which is not extensively promoted by the Association of Certified Fraud Examiners [52].

2.2. Prevalence of FT

Across the corporate world, the concept of occupational fraud has been widely conveyed through the three dimensions of the FT framework, and has become a global benchmark for understanding the determinants of illicit behaviour [60].

The Association of Certified Fraud Examiners (ACFE), founded by Joseph Wells, is the main proponent of the FT model. The association conveys a particular vision on fraud detection and prevention by advocating the FT discourse as the best approach for practitioners. As a result, the three dimensions of the FT model are regularly used by professional associations related to external and internal audits such as the American Institute of Certified Public Accountants (AICPA), International Federation of Accountants (IFAC), and the Chartered Institute of Management Accountants (CIMA) among others, to explain the root-cause of fraudulent behaviour in businesses [52, 60].

The widespread application of the FT across accounting organisations creates the impression that the FT model accurately reflects the essence of criminal activities in practice. However, the promotion and re-enforcement of this triangular explanation of misconduct might be one-sided, as it does not consider other criminological perspectives and lacks alternative views. This could potentially further result in merely a partial solution to fraud reduction and prevention where accounting and auditing institutions are presented with an incomplete idea of the rationale behind unlawful behaviour.

2.3. Practical Limitations of the FT Model

While the FT model is highly popular among anti-fraud practitioners as a means of analysing the causes of engaging in illegal behaviour, the FT provides a narrow view of the root causes of unethical and illegal conduct and is therefore not fully suitable for developing effective counter-measures. There are several reasons for this notion [45, 48, 52, 60].

First, the model reduces the complex nature of occupational fraud to three elements: pressure, opportunity, or rationalisation, which marginalizes sociological and cultural effects, and ignores the diversity of criminogenic influences that inherently impact organisational members in a social group (i.e. societal pressure, structural forces). The model does not represent fraud as a collective effort but rather the behaviour of a loner – a single person taking advantage of weak internal controls, and who is driven by a desire for personal enrichment. It therefore focuses on the individual perpetrator and not on the organisational settings and environment that may facilitate and encourage fraudulent actions. Even though, the FT could be applicable to cases with a lone employee as a single offender, the model is less suitable for discussing misconduct or fraud perpetrated by senior managers who possess excessive power and access to organisational resources. Managers have, *per se*, a greater opportunity to override existing controls and misuse their positions due to their executive position in businesses.

Second, the FT implies that none of the three dimensions are sufficient on their own to trigger occupational fraud. The model also does not clarify which one of three conditions (pressure, opportunity or rationalisation) is the strongest trigger of fraud, which leads to the assumption that businesses should place equal weight on all three dimensions in preventing unlawful conduct. On the one hand, the opportunity to commit fraud, expressed in deficiencies of internal controls, is seemingly simple to detect. On the other

hand, the identification of pressure to commit fraud can be challenging, as this is subjectively perceived and may vary across individuals. Additionally, individual capabilities to justify and rationalise fraudulent acts are also more personal in nature.

Third, Messina [48] asserts that each person experiences pressure and rationalises his or her actions. Given the 'right' opportunity, each individual could have therefore the potential to be a fraudster. Consequently, the FT is deceptive in terms of its contribution to the identification of potential offenders. In other words, the model is not sophisticated enough to fully identify behavioural characteristics that explain fraudsters' psychological motives.

Fourth, the emphasis on two individual-related elements such as pressure and rationalisation suggest that companies should evaluate the mindset and attitude of employees for effective fraud prevention and detection. This could promote organisational surveillance in businesses and breeds general mistrust towards employees. The FT conveys the message that it is imperative for companies to keep a closer eye on individual activities and behaviour.

Lastly, practitioners and companies often focus prevention efforts around the opportunity to commit occupational fraud, which is arguably the most manageable element. Fraud prevention efforts are therefore reduced to the effectiveness of the organisation's internal control system. The factors of 'pressure and incentives' as well as 'attitude and rationalisation' are on the other hand perceived by practitioners as difficult to measure and manage. Other elements of fraud such as organisational culture, social settings and leadership style are seldom acknowledged and thus are outside the scope of the FT.

Given the questionable theoretical underpinnings and practical relevance of the FT model, Figure 2 summarizes the limitations of the FT.

	Limitations	Explanations
Rationalisation	<ul style="list-style-type: none"> Is non-observable attribute 	<ul style="list-style-type: none"> Rationalisation is not diagnostic and can't be quantified or measured
Pressure	<ul style="list-style-type: none"> Is subjective descriptor of the fraudster's motivation 	<ul style="list-style-type: none"> The pressure to commit fraud does not need to be non-shareable (or financial)
Opportunity	<ul style="list-style-type: none"> Does not address collusive behavior and control override by management 	<ul style="list-style-type: none"> Criminal cooperation is out of scope of the FT, i.e. the situation in which individuals pool their expertise to commit fraud
The Fraud Triangle	<ul style="list-style-type: none"> Is not a general theory of fraud and can't explain every occurrence of fraud 	<ul style="list-style-type: none"> The behavior of the pathological fraudster is not explained Three attributes do not need to come together and be present in all fraudulent acts

Figure 2. A graphical representation of the limitation of the FT. Notes: This figure is adapted from Lokanan [45] and shows the limitation for each element of the FT.

Lokanan [45] points out that the rationale behind committing occupational fraud is a non-observable trait as it is challenging for practitioners to decipher the thoughts and

motives of an individual. Further, some offenders, such as pathological fraudsters, may not rationalise at all, but instead actively look for opportunity to commit illegal activities.

Moreover, the second element of 'pressure' is typically not diagnosable by practitioners as this is a very subjective description of motivation which could vary from individual to individual. The element of 'pressure' in the FT model does not encompass crime-coercive and crime-facilitative corporate systems that compel and induce members to engage in unethical and illegal activities.

What is more, the FT ignores instances where the opportunity to commit fraud is deliberately initiated and created collectively. This indicates that group criminal conduct is largely ignored by the FT model.

Considering the challenges practitioners face in employing the FT model to explain offendings in organisational settings, it is often problematic to get to the root cause of the motives behind misconduct. The practical limitations of the FT are grounded in the fact that the FT model considers occupational fraud to be an individual problem and focuses predominantly on deviant individuals. The model perceives individuals as acting alone for financial gain and ignores group dynamics, and the effect of wider societal influences. Further, it does not explain collective fraud (co-offending) or crime by obedience (innocent fraud or bystander fraud) which are prevalent in organisational settings. For practitioners, the FT model offers less practical solutions to cases involving entire organisations, where fraudulent behaviour is an internal norm, [42, 53]. The influence of corporate culture, and institutional forces nurturing illegal and unethical behaviour remains out of scope of the FT.

Despite these limitations, the three elements of the FT may still be useful in providing some insight into understanding specific fraud cases, and why situational fraudsters decide to offend in particular circumstances [45]. This would nonetheless require practitioners to possess true knowledge (rather than an assumption or a vague notion) about two non-observable descriptors ('pressure' and 'rationale'), and how these key elements effectively influence the individual to engage in fraud.

Lokanan [45, p. 124] suggests the FT addresses 'pigeonholes fraud' in the realm of potentially fraudulent activities, since it predominantly aims to explain occupational fraud committed by one individual. Huber [34] additionally points out that the FT grounded in Cressey's research [13] has less to do with fraud. In his work, Cressey [13] writes about the social psychology of embezzlement rather than fraud [52]. The 'embezzlement triangle' thus only refers to theft as a form of breach of trust, and cannot explain the range of corporate or financial fraud types. Despite the number of limitations though, the FT is still used extensively by business organisations, as it is the most obvious framework in practice when examining fraudulent behaviour in businesses.

3. Criminogenic Multi-layers

The simplistic conceptualisation of the FT focusing on opportunity, rationalisation, and pressure is largely incompatible with the macro-meso-micro view of

criminogenesis. The FT model cannot fully absorb and decode the multifaceted and multi-layered phenomenon of unethical and illicit behaviour. It is thus incumbent on the anti-fraud community to apply a model endorsing the criteria regarding collective offence in the organisational context to better understand and analyse the origin of illegal and unethical activities in organisational context. A number of fraud cases in practice reveal that in case of collective fraud, offences cannot be attributed to a single employee, but rather to criminogenic multi-layers which are discussed below.

3.1. Macro-level Analysis

Macro-level analysis refers to the business environment and encompasses wider societal and institutional factors that shape the behaviour of business organisations and their members [15]. These include, but are not limited to, national culture, social acceptance of corporate crime, laws and regulations, relationship between the state and corporation as well as political and economic forces [16, 43].

One of the facilitative elements for the occurrence of corporate misconduct is the existence of poor legal frameworks and legislative loopholes that businesses might exploit for their own benefit. While there is an established legal framework comprising of judicial systems and law enforcement authorities that prevent corporate crime, the major challenge lies in the nature of the laws that enforcement authorities apply. Gaps and weaknesses exist in various regulations and legislations on corporate crime, and corporations may identify these voids and exploit them to ensure that their actions are deemed 'lawful' without being caught by the legal system. Due to discrepancies in legal frameworks, inadequate market regulations directly facilitate corporate crime. Regulations that monitor, supervise, and control corporate actions might be insufficient as they fail to provide solid legal basis upon which corporations could face criminal charges.

Another potential aspect that facilitates corporate misbehaviour is the combination of shareholder expectations and the pressure to enhance the profit while reducing production margins. Shareholder primacy plays a key role because it could place economic profitability as the top priority, and neglect the risk of potentially unethical and illegal acts. In an attempt to please shareholders and to retain competitive advantage, businesses may therefore seek to increase sales and profit, and reduce expenditures through unlawful activities.

Various industries have grown increasingly competitive over the last two decades, suggesting that profitability is less of a guarantee. As competitors continue amassing wealth in such an environment, business organisations could find themselves under intense pressure to stay afloat. Consequently, businesses may try to keep up by inventing new practices, cutting costs and exploiting new markets through unethical and illegal means.

Market uncertainties further intensify the pressure to remain competitive. Changes in various sectors of the economy and in particular industries also contribute to

market fluctuations. As such, it is conceivable that companies may engage in illegal activities to keep up with the economy's prevailing circumstances. Criminogenic industries both reflect and shape the business environment in which companies operate, and businesses may therefore be forced to misbehave. In this regard, there are crime-coercive and crime-facilitative systems, where companies operate as system members [55]. Accordingly, the former system has structural conditions that compel firms to commit or to participate in, and the latter instead encourages system members to engage in unethical and illegal acts [55, p. 518].

Furthermore, Vaughan [72] points out that the structure of the relationship between regulators and the businesses they regulate systematically mitigates regulatory effectiveness. Subsequently, the regulatory framework loses its usefulness through interdependent relationships that feed into the causal process. It is often the case that authorities compromise the sanctioning stage of social control by withholding harsh sanctions and by bargaining with organisations committing the crime. This in turn might disincentivise organisations from abiding to the law [69]. The ineffectiveness of the regulatory environment is thus regarded to be one of the main causes of corporate misconduct in the business context [17, 55, 64].

In essence, the incidence of corporate crime is facilitated by a number of macro-factors like the symbiotic, interdependent and complex relationships between state and corporations, structural irresponsibility of businesses, poor state regulations and regulatory frameworks as well as political and legislative conditions that primarily support business interests.

3.2. Meso-level Analysis

The meso level of analysis refers to the business organisation itself and considers organisational elements that shape individual behaviour in businesses [15]. Such determinants espouse profit ambitions of businesses, organisational culture, corporate decision-making and authorisation processes, policies and practices [43], as well as professional networks [75]. The nature of criminogenesis at the meso-level is characterised in this context by unethical business culture, irresponsible leadership style, criminogenic structure and work environments that promote diffusion of responsibilities, and atmosphere of anxiety and exclusion.

Another important criminogenic factor at the meso-level is the goal-oriented nature of businesses associated with market competition and rivalry, which may have a direct impact on business conduct. In a market environment shaped by scarce resources and intense competition, organisations endeavour to aggressively secure strategic assets, and primarily, strive for resources such as economic success, positive image, or symbolic representations of achievement [21, p. 72].

In real life applications, however, not all companies that compete can win or preclude their failure completely. Under these circumstances, firms that do not manage to reach their goals through legitimate means may be pressured to attain them through other unethical and illegal methods [12, 17].

Moreover, Gao [21] asserts that businesses in highly competitive markets are more likely to be pushed to commit criminal acts. Vernard *et al.* [76] additionally argue that the higher the degree of market competition, the greater the level of unethical and illegal behaviour. Tullock [68] supports this notion that strong competition provides greater incentives for companies to use various means to gain a competitive edge – including unlawful methods.

The degree of competition in a market hinges on factors like the threat of new entrants, bargaining power of customers, bargaining power of suppliers, how easily products and services are substituted, and the intensity of competition [59]. Isomorphic process that businesses decide to undergo is directly related to the degree of competitiveness of each industry [17]. Criminogenic isomorphism might arise from the pressure to mimic successful firms [4].

In a study by Leonard and Weber [44] on the automobile industry, the authors identified various criminogenic elements of market competitiveness that create a crime-facilitative environment. They found that in environments with high sales pressure and low margins, auto dealers introduced diverse fraudulent practices in order to remain competitive in business. Moreover, their findings showed that businesses engaged in 'kick-back' schemes and compensatory profit systems that generated unrecorded cash for kick-back payments [44].

In a scarce environment, firms were also found to experience enhanced pressure to partake in legally questionable activities and unfair market practices such as price fixing, franchise violation, and tying arrangements [75]. In criminogenic markets, such practices are regarded as 'the way things are done' and can readily become an unwritten rule of competition. Subsequently, such markets breed corporate misconduct due to the failure to prevent it [10].

Furthermore, the competitive structure of the marketplace generates a perception that main players have 'no choice' but to violate the law [29]. Companies frequently cite acting out of necessity as an excuse to break laws as their competitors similarly do so and manage to escape prosecution [69]. This indicates that the business practices often do not adhere to legal requirements and social expectations in a competitive market [29]. However, it is likely that most organisations abide by the law and adhere to ethical rules of behaviour. Yet market pressure and firms' profit ambitions may still incentivise some companies to engage in nonconforming conduct in order to achieve their business goals [54].

A business organisation is a legal entity which conducts business with the main goal of producing economic profit [56]. In this sense, the goal-oriented nature of organisations is a complementary element to the forces arising from the competitive market environment. All in all, criminogenesis generated by the goal-oriented character of businesses, are in turn reinforced by the competitiveness of the market. In a way, the degree of competitiveness in a given market and the goal-oriented nature of businesses are mutually supportive and reinforcing to some extent.

3.3. Micro-level Analysis

The term 'micro' denotes the individual, and is the most minute unit of analysis when it comes to examining the origin of illegal and unethical activities in organisational situations [15]. Organisational deviance literature suggests that individuals' cognition is one of the decisive factors for employees' involvement in misconduct [17]. Based on this, micro-level analysis underscores the importance of accounting for individual integrity, belief, values and personal traits in both wrongdoing occurrence and prevention. In other words, individuals remain one of the key contributors of risk mitigation. Although corporate crime concerns the misconduct of businesses, such activities are naturally engineered and instigated by human agents in the good name of the company [23]. As Box [8, p. 38] highlighted, "...organisations *per se* do not plan, think, or act...", whereas humans do.

Micro-level analysis deals with the occurrence of cases where employees in managerial positions, for example, misuse their power to perpetrate fraud and coerce subordinates to participate in unethical and unlawful activities. Albeit internal controls may appear to operate effectively, managers could still exploit their executive positions and authority to override controls. Such behaviour could be grounded in the frail morality of individuals and personal characteristics of offenders related to narcissism, hubris, Machiavellianism, coupled with ambitiousness, shrewdness and greed [51].

Employees who are coerced into committing illicit acts by their superiors may also be loyal to their bosses but lack critical thinking. In this setting, co-offending is a frequently overseen element in corporate misconduct, which is nurtured and facilitated by micro-criminogenesis. Criminal opportunities are created in tandem and supported by two groups: managers who actively engineer an illicit *modus operandi* and successfully integrate it into their business models, and subordinates, who are mostly aware of it but do not try to prevent the crime. In other words, employees may act in these circumstances as 'passive bystanders' and deliberately ignore fraudulent schemes, or be 'active bystanders' who commit fraud but who do not directly benefit from it.

Further, micro-level analysis also refers to criminogenic antecedents influencing employee misconduct in organisational context such as displacement of responsibility and moral disengagement, cost-benefit thinking and justification of misbehaviour.

3.4. The Micro-meso-macro Connection

In order to gain a broader understanding of illegal and unethical conduct in organisational situations, it is crucial to view micro, meso and macro elements in connection. Social life in organisations and human behaviour as 'situated action' is best understood as a consequence of the interconnection between micro-, meso-, and macro levels [75].

Diane Vaughan's Framework of Organisational Deviance

[71, 73, 75] outlines the relationship between micro, meso and macro factors, and how they contribute to organisational deviance. Her work highlights the importance of the micro-, meso-, macro-connections in understanding the cause of deviant, unethical and illegal behaviour in organisations. The choice to engage in such behaviour is shaped by not only individual cognition (micro), but also organisational (meso) and institutional (macro) forces and processes. The influence of micro, meso, and macro factors on human behaviour and social life has been demonstrated by several other researchers. The general consensus among scholars is that micro, meso and macro analyses are closely intertwined [15, 16, 22, 30, 38, 43, 67]. Therefore, it is very likely that misbehaviour among individuals occur due to the influence of micro, meso and macro criminogenesis. Prevailing organisational and institutional forces, such as rituals, norms, values and beliefs, affect how decision makers in an organisation make judgments in the process of executing their duties and responsibilities. As Vaughan [75] emphasises, meso and macro factors affect actions at the micro (individual) level. The interaction between micro, meso and macro forces thus may explain why the origin of unethical and illegal practice is often a difficult phenomenon to comprehend.

The 1986 Space Shuttle *Challenger* disaster for instance, presents an ideal case study for understanding the micro-meso-macro connection with respect to organisational deviance. Vaughan [71, 73, 75] argues that the disaster was caused not by individual cognition alone, but also by a social context that stimulated managers at the National Aeronautics and Space Administration (NASA) to make choices that ultimately led to the disaster. For years, NASA managers were aware of the technical problems with the shuttle's solid rocket boosters (SRBs). However, due to organisational and political factors, these technical flaws were overlooked, eventually leading to the accident. Subsequently, in Vaughan's [73, 74] study, the author specifically illustrates how micro, meso and macro forces led to the disaster. At the micro level, NASA managers and engineers accepted recurring technical anomalies as a risk. At the meso level, NASA's culture of proceeding with shuttle launch in the face of technical uncertainty and beating launch schedules gradually contributed to the acceptance of technical errors. This was exacerbated further, by budget cuts and political pressure from Congress and the Executive (macro-level).

The interaction between the micro, meso and macro causes of organisational deviance is the reason as to why some organisational deviance scholars have advocated for more theoretical integration since the 1980s [71]. Such efforts to merge micro, meso and macro analyses have been termed as the 'integrationist movement' that involves considering connections between different theories and approaches [75]. In particular, theoretical integration in the context of unethical and illegal behaviour in organisations is concerned with determining linkages between individualistic and collectivist perspectives of organisational misconduct [75]. However, how the integration should be done and how

individual, organisational, and institutional forces should be connected remains debatable and therefore subject to further research.

Besides Vaughan [75], other scholars have also examined the origin of misbehaviour executed in and by businesses from the perspective of the micro-meso-macro connection. Giddens' [22] theory of structuration is closely related to Vaughan's micro-meso-macro framework and asserts that individual action does not occur in a vacuum, and is shaped by factors beyond the control of individuals. Specifically, Giddens [22] argues that human conduct can be best understood by analysing both the micro- and the macro-levels together and not separately. This suggests that the two units are intertwined as an individual's life and actions are shaped by social structures [16]. Similar to Vaughan's micro-meso-macro approach, the perspectives of Giddens [22] offer useful theoretical frameworks for understanding the phenomenon of organisational misconduct.

Traditionally, organisations have dealt with deviance by punishing the individuals involved in unethical or illegal activities. This approach stems from early scholarly perspectives on organisational deviance that view unethical and illegal behaviour in organisations as the result of individual actions [71]. Vaughan [71] perceives this approach as flawed as it ignores the broader meso and macro forces that make individuals deviant.

Vaughan's micro-meso-macro framework helps to achieve a more comprehensive understanding of fraud and corporate crime. The crux of her framework is that it aims to combine all three levels (micro, meso and macro) in the analysis, to provide a better and more holistic understanding of deviant behaviour in the organisational context. In this view,

individuals' and businesses' desires, motives and means are heavily influenced by the environment (macro), and concurrently, the business environment is shaped by its members (i.e. business and individuals).

Taking into account the complex and mutually supportive relationship between the three micro-meso-macro domains, measures to reduce unethical and illegal activities in businesses should therefore comprehensively consider all three levels of analysis in order to effectively address misconduct in the organisational settings.

4. Induction of an Integrative Model of Criminogenesis

4.1. Introduction

In light of the micro-meso-macro connection outlined above, the integrative model of criminogenesis considers well-known theories and conceptual frameworks on the determinants of illegal and unethical conduct. The following main theories were taken into account for the induction of the model: crimes of obedience [49], groupthink [37], normalisation of deviance [69], collective reasoning [57], displacement of responsibility [32], rationalisation of criminal behaviour [29], cost-benefit thinking [54], moral disengagement [9], and crime of the powerful [62, 79].

Figure 3 shows three units of analysis which are regarded to be the carriers of criminogenic antecedents that build the foundation for the induction of an integrative model of criminogenesis.

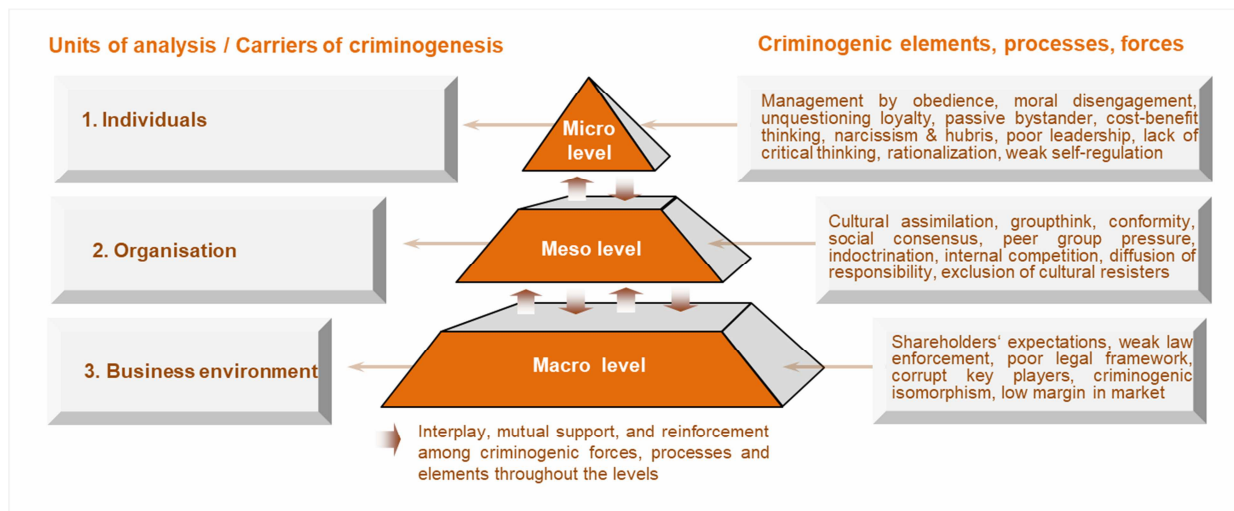


Figure 3. Taxonomy of criminogenic antecedents - A graphical representation of the carriers of criminogenesis. Notes: This figure shows three different units of analysis (micro, meso and macro), together with the criminogenic elements, processes and forces.

The model of criminogenesis attempts to holistically consider individual, organisational and environmental elements in understanding misconduct displayed in, and by business organisations, while a large body of existing literature examines the criminogenic enablers in isolated form.

For instance, Gottfredson and Hirschi [26] argue that the individual, rather than the environment or organisation, is a more cogent unit of analysis when it comes to the explanation of misconduct in organisational settings. The authors primarily concentrate their General Theory of Crime at the micro-level, by attributing the major cause of corporate

crime to individuals' propensity to exhibit illicit behaviour [26, 31].

On the contrary, Reed and Yeager [61] de-emphasise micro-level factors, and instead propose a meso-level explanation for corporate offence. The authors stress that organisations are the appropriate unit of analysis rather than individuals [31]. In their study, they perceive businesses and their internal settings as the main drivers for criminal activities [31]. The authors' arguments against the General Theory of Crime rely mostly on Merton's Strain Theory [47], which emphasises social learning theories and the criminogenic structures and cultures of business organisations, and [1, 31]. Further, Reed and Yeager [61] suggest that the meso-level predominate and transcend other levels in their ultimate effect on misbehaviour in organisations.

Herbert *et al.* [31] aim to blend both meso-level and micro-level factors as the main influences on corporate offence. In this vein, the focus of the authors lies at the intersection of ethical culture creation within companies and the methods through which members negotiate criminalisation in the workplace [31]. Other theoretical approaches to the etiology of unethical and illegal acts advocate for the combination of the activities of organisations and individuals within businesses [58, 69]. In a nutshell, not many models to date integrate different theories and include various levels of analyses and attempt to encompass concepts of deviance, social control, as well as organisational and institutional theories, which combine major principles of social organisations and situated actions [73, 75, 78].

In addressing this void, the model of criminogenesis focuses on joining together three levels of analysis: individual (micro), organisation (meso), and environment (macro). The crux of this micro-meso-macro tie is that events or any changes at one level has direct or indirect consequences on other levels [25]. That is to say that there is interdependence between the factors, processes and forces among the three areas. All three levels are self-organising dynamic domains that mutually shape and influence the development of processes and forces harboured in all three areas [25].

The discussion on the origin of misbehaviour in the business context thus cannot be reduced to a single dimension of analysis and any single factor at one level. A lack of consideration for these interdependences and excessive focus on one level could lead to a one-sided view on the phenomenon of misconduct in business organisations. Consequently, the holistic approach must contend with at least three levels of analyses: micro (individual as a human agent), meso (organisation as a social construct), and macro (the environment where both the organisations and individuals act).

4.2. Conception and Design of Multi-levels

A multi-level approach aims to systematically take employees, organisational settings and environment into account. This manner to discuss the origins of misconduct is

paramount in order to embrace the variety of criminogenic factors, circumstances, processes and forces operating over three different levels:

- 1) Macro-level, which relates to the overarching domain and represents the business environment such as specific industries and markets in which companies function [6].
- 2) Meso-level, which treats organisations as social constructs and perceives business organisations as a medium that connects the macro- and micro-levels [75].
- 3) Micro-level, which is concerned with human agency (employees across an organisational hierarchy). The micro-level does not necessarily denote the smallest domain of analysis. Rather, it emphasises on individuals that act in their social settings or a small group of employees functioning in a particular social context [29].

This multi-level approach treats each level as a salient unit of analysis which allows an in-depth examination of the individual, organisational, and environmental areas [73].

Discourse about the relationship between the environment, organisational settings, and the behaviour of individuals is not novel. Existing research has constantly highlighted the connection between the different levels, by pointing out that the structures and processes in the organisational context are implicated in individual actions, and that the environment impinges upon, and is reproduced in both the organisational settings and individual conduct [19, 36, 50, 73]. Considering the connection among three levels when analysing the causes of misbehaviour, unethical and illegal activities are most likely to occur if all three levels of analysis are involved, and a combination of the following situations take place:

- 1) Political, economic and legal systems provide a conducive environment for crime to thrive (macro-level).
- 2) A corporate culture exists that condones, coerces or facilitates criminal and unethical conduct (meso-level).
- 3) There are employees who behave illegally and unethically to benefit themselves or their affiliated organisations, and there are individuals who are aware of that but refrain from preventing misconduct (micro-level).

4.3. An integrative Multi-level Model of Criminogenesis

Consideration of the environmental, organisational and individual antecedents of unlawful and unethical behaviour leads to greater understanding of misconduct in the corporate world. Thus, in identifying the criminogenic enablers of wrongdoing, three categories can be defined:

- 1) Environmental elements, which include symbiotic and complex state-corporation relations, political conditions supporting business interests, intense competition in a given industry, isomorphic pressure to imitate peers, and market uncertainties in connection with fluctuations and sectorial changes. These factors contribute to an increase in illegal and unethical behaviour through crime-facilitative and coercive conditions such as

inadequate legal frameworks, weak law enforcement, corrupt key players that dictate market rules, poor market regulation, and social acceptance of illegal practices [23, 29, 55].

- 2) Organisational elements, which make up the second vector of criminogenic antecedents and include organisational structure, hierarchy, culture, leadership and management style, and work climate. These attributes primarily influence criminal conduct through the socialisation process, social pressure to conform to the group norm, obedience and groupthink effects, lack of diversity in groups, prevalence of management by obedience and poor leadership as well as unethical organisational culture [7, 32, 54].
- 3) Individual elements, which are associated, for example, with individual values, leader-follower exchanges, temperament, stress immunity, attitude to risk-taking, the tendency to anti-social behaviour as well as narcissistic, Machiavellian, and hubristic traits, and further heritable and biological influences. The criminogenic effect of such factors is enhanced by a lack of critical thinking, unquestioning loyalty to a group, rationalisation mechanisms, displacement of responsibility, moral disengagement, and cost-benefit thinking [3, 20, 28, 73].

Altogether, criminal, unethical and deviant conduct in organisational settings is likely to be attributed to diverse factors that facilitate and contribute to misbehaviour through a range of criminogenic conditions, forces and processes that operate at the macro-, meso-, and micro-levels. These criminogenic enablers are also dissimilar in their nature and influence, where they may induce or coerce agents such as individuals, groups, or business organisations into engaging

in malpractice.

Figure 4 illustrates the model of criminogenesis that could lead to illicit and unethical conduct of business organisations and their members. This model portrays how environmental, organisational and individual elements contribute to offences committed in and by business organisations, under the influence of facilitative and coercive conditions, forces, and processes [23].

In isolation, criminogenic elements do not necessarily cause illicit and unethical behaviour. However, the likelihood of misconduct significantly increases if circumstances and conditions are present which at the very least facilitate and support illegal and unethical activities. The interaction of crime-coercive processes and forces in connection with crime-facilitative settings advance the progress of criminalisation processes [23].

If environmental, organisational and individual antecedents influence employee behaviour simultaneously, this subsequently breeds a fertile environment where criminogenic mechanisms and processes certainly lead to malpractice. Through mutual reinforcement, criminogenic enablers can produce a positive climate for the proliferation of questionable activities. In this regard, employees' misconduct is shaped by the interaction of factors at all three levels: macro-, meso-, and micro-level. For instance, in a working environment where obedience to authority is imperative and groupthink is common, employees are likely to mimic the behaviour of their peers as a result of the socialisation process. In case of engagement in criminal activities, followers may distance themselves from the consequences of their actions by shifting any moral responsibilities to those in authority [9, 40].

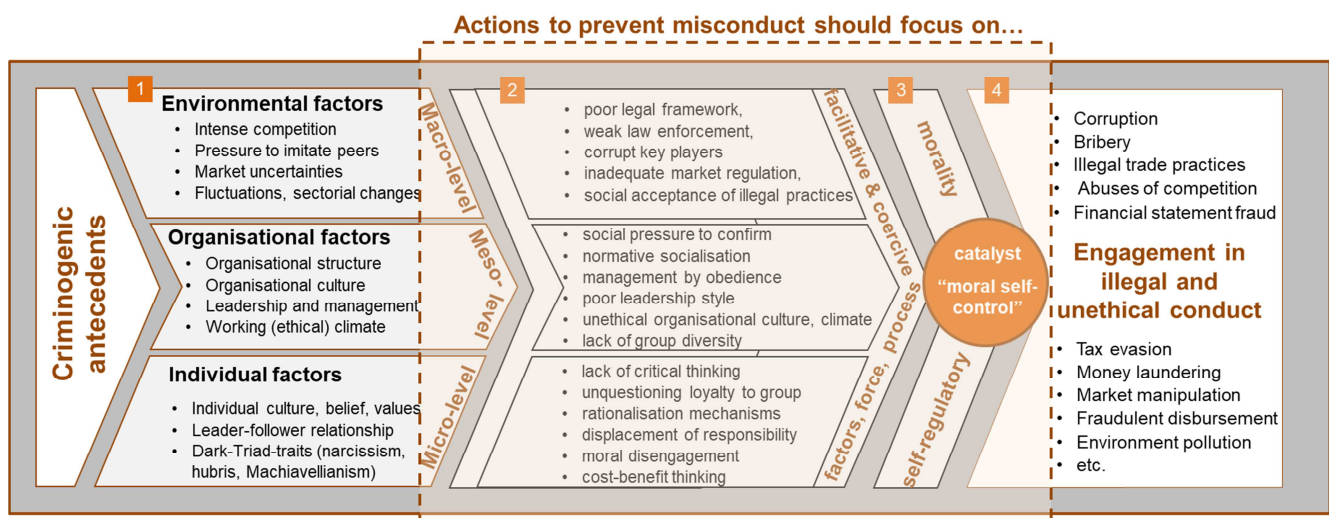


Figure 4. A graphical representation of the integrative multi-level model of criminogenesis.

Organisational culture, leadership, and atmosphere could also result in criminal and unethical activities through further socio-psychological processes, including *collective* reasoning, cost-benefit thinking and rationalisation of misbehaviour [11, 46, 54, 63]. Businesses might create

cultures, norms and rituals that facilitate the proliferation of malpractice through the use of techniques like justifying misbehaviour, rewarding conduct that benefit the organisation's objectives (even if the behaviour is questionable), and punishing members who defy group

norms and rules. Due to this, misconduct becomes a generally accepted norm. In this respect, the social settings and circumstances under which human agents act should be acknowledged as the key areas to address criminal and unethical opportunities. Companies aiming to effectively reduce illegal and unethical conduct in an organisational context are therefore bound to address criminogenic conditions, processes and forces to reduce adverse effects.

It is essential to emphasise that the model does not predict a certain outcome of mutual influence of criminogenesis. On one hand, it is crucial what individuals bring into the business organisation (personalities traits, attitudes, values, beliefs, cultural and social backgrounds). On the other hand, it is important to consider what the organisational situation of the business actually is (e.g. working atmosphere, social and situational context, organisational culture and norms). Joining these two points, the ultimate question is what could the organisation bring out of people and how employees influence the organisation and working environment on a daily basis? This question remains a conundrum since the variety of variables that people bring to the organisation and what the organisation can produce out of it depends on individuals and the circumstances they are in.

However, the model treats self-control capabilities and morality of individuals as a fulcrum, which are the most significant elements in effectively reducing the probability of misbehaviour [26, 80, 82]. The interconnection and interaction of morality and self-control are expressed in moral self-control competences, which are epitomised in the strong morality, self-concept and self-regulatory skills of employees [81, 33]. For instance, employees with weak self-control capabilities and who take a passive role in leadership-follower relations are more likely to disengage morally and commit crimes of obedience.

Moral self-regulatory capabilities at the individual level take on the role of catalysts and 'moral and ethical goalkeepers'. This emphasises the importance of focusing anti-fraud efforts on enhancing and strengthening individual morality and self-regulation competencies [7]. Milgram's 1965 experiments showed that not all individuals did give in to unethical requests by their superiors: about 35% of the participants in Milgram's studies were not obedient to unethical directives of authority [40, 49]. Such individuals demonstrate constructive resistance, indicating opposition to unethical directives from management, coercive social compliance or groupthink effects [9]. These group of individuals were found to have distinct characteristics like conscientiousness, moral identity, locus of control, perceived responsibility for wrongdoing, strong internal moral compass, which made them predisposed to object unethical demands [9, 32].

Individuals with strong moral self-control highly value personal standards, making them less likely to violate these principles [7, 33]. Conversely, individuals with weak moral self-control capabilities comply with societal standards and are more likely to behave according to the demands of the situation at hand. In accordance with the crimes of obedience

perspective, individuals in an organisation are more likely to be dictated by the firm's hierarchy and norms, suggesting that susceptibility to crimes of obedience is likely to be greater among individuals with lower moral and self-regulatory efficacy [32]. Businesses therefore have the prime responsibility in raising awareness and to providing training for staff that enhance employees' moral self-control competencies.

It is vital to outline that even though the model aims to locate causing elements for misconduct, crime-coercive and crime-facilitating criminogenesis influencing individual conduct should not be seen as excuse for any offending and misbehaviour. It could be very tempting to use circumstances outside of an individual's control and environmental deprivations as justification for individual wrongdoing and in this way to avoid any criminal responsibility. It is not a conclusion of this model that individuals under effect of criminogenic conditions are not able to make their decisions to act or refrain from specific actions. Breaking down the causes of misconduct does not shift the responsibility from the human agent and does not provide any defence for any unethical and illegal conduct.

4.4. Model Limitations and Further Research

The model of criminogenesis suggests that the emergence of illegal and unethical conduct is the outcome of crime-coercive and crime-facilitate forces, processes and factors. One of the limitations of the model, however, is that it does not predict which specific unit of analysis (individual, organisation, or environment) and which specific criminogenic driver (force, process, or factor) ultimately impacts the probability of illegal or unethical activities carried out in and by business organisations. Furthermore, this model of criminogenesis is unable to anticipate which particular act will be committed, and can only provide an indication of what factors, circumstances, processes and forces are present, and which of these enable individuals to engage in misconduct.

There is much still unknown about the etiology of unethical and illegal behaviour. The introduced model does not claim to fully comprehensively cover all conceivable criminogenesis. The list of criminogenic antecedents is not exclusive and can be broadened through further researches. It is essential to look further for answers as to what else could explain situational actions leading to persistence of, or desistance from misbehaviour in organisational context [80, 82].

Mutual influences of the three areas of criminogenesis remain complex and the influence of criminogenesis on business organisations and their members is not constant, and can fluctuate over time. Not all companies have a high degree of criminogenesis, although those that do, tend to be more frequently engaged in misconduct [14, p. 179]. In other words, criminogenic processes, factors and forces may operate unevenly in a system such that criminogenic influence across businesses and industries, and thus the incidence of malpractice follows a dynamic trend [55].

The interaction and mutual influence of environmental, organisational and individual elements is indeed manifold. Understanding how these variables interact, reinforce and neutralise themselves or each other, requires further analysis. Vaughan [72, p. 120] suggests that events, circumstances and activities are produced by 'situated actions' which connect individuals, organisations and environments. In this regard, future empirical research could focus on analysing how such actions operate and prompt criminogenic elements to interact at the three different levels. In this context, the paper aims to offer a coherent model of the causation of misconduct in organisational settings, so that research in this area could test empirically the range of conditions under which illegal and unethical activities are likely to occur. The model could have implications for researchers working on constructing a comprehensive model of intrinsic criminogenesis and integrative theory of corporate misconduct since the model contributes to advancing our understanding of the complex dynamics underlying the emergence of organisational misbehaviour.

Finally, it should thus be said that this model is still a work in progress, and would greatly benefit from further refinement and empirical studies that test its validity and applicability to real life data.

5. Conclusion

The FT does not sufficiently explain why unethical and illegal activities are committed in organisational settings. It has a range of weaknesses, such as the two non-observable attributes, pressure and rationale, and the dearth of information that could explain collusive behaviour as well as individual and organisational misbehaviour. Accordingly, alternative models should be considered by practitioners in order to compensate for the shortcomings of the FT model and target institutional, structural and social forces, process and conditions that nurture and facilitate misconduct in organisational context. To this end, this article suggests a more integrative model of criminogenesis to catalyse the discussion on the importance of considering multiple units of analyses (micro, meso and macro), in order to better understand the occurrence of illegal and unethical activities. The benefits of the FT should not be fully ignored, however, as it helps to partially explain some of the rationale behind fraudulent behaviour at individual level.

Disclosure

This research was part of my dissertation which was published as a PhD thesis, completed at the Department of Criminology and Sociology, Middlesex University London, UK [24].

References

- [1] Akers, R. L. (1998). *Social Learning and Social Structure: A General Theory of Crime and Deviance*. Boston: Northeastern.

- [2] Apel, R. & Paternoster, R. (2009) "Understanding 'criminogenic' corporate culture: what white-collar crime researchers can learn from studies of the adolescent employment-crime relationship" in Simpson, S. and Weisburd, D. (Eds). *The Criminology of White-Collar Crime*. New York, NY: Springer, p. 15-33.
- [3] Ashforth, B. & Anand, V. (2003) "The normalization of corruption in organisations". *Research in Organisational Behaviour*. 25, p.1-52
- [4] Beckert, J. (2010) "Institutional isomorphism revisited: convergence and divergence in institutional change". *Sociological Theory*. 28, (2), p.150-166.
- [5] Berger, R. J. (2011). *White-collar crime. The abuse of corporate and government power*. Boulder, Colorado: Lynne Rienner Publishers
- [6] Bethune, R. A. (2015). *Profiling White-Collar Criminals: What is White-Collar Crime, who perpetrates it and why?* PhD thesis in criminology. The University of Edinburgh. [Online] Available from: <https://www.era.lib.ed.ac.uk/bitstream/handle/1842/10609/Bethune2015.pdf?sequence=1&isAllowed=y> [Accessed 10 April 2021]
- [7] Beu, D., & Buckley, M. (2004) "Using accountability to create a more ethical climate". *Human Resource Management Review*. 14, p.67-83.
- [8] Box, S. (1983). *Power, Crime, and Mystification*. (2nd ed.). London: Tavistock.
- [9] Carsten, M. & Uhl-Bien, M. (2013) "Ethical followership: an examination of followership beliefs and crimes of obedience". *Journal of Leadership & Organisational Studies*. 20, (1), p. 49-61.
- [10] Cassel, E. & Bernstein, D. (2007). *Criminal Behavior*. (2nd Edition). NY: Lawrence Erlbaum Associates, Inc., Publishers.
- [11] Chen, S. (2010) "The role of ethical leadership versus institutional constraints: a simulation study of financial misreporting by CEOs". *Journal of Business Ethics*. 93, p. 33-52.
- [12] Clinard, M. B. (1992). *Corporate Corruption. The Abuse of Power*. New York: Praeger.
- [13] Cressey, D. (1953). *Other People's Money: Study in the Social Psychology of Embezzlement*. New York: Free Press.
- [14] DeKeseredy, W. S., Desmond, E. & Alvi, S. (2015). *Deviance and Crime: Theory, Research and Policy*. London: Routledge.
- [15] Dopfer, K., Foster, J. & Potts, J. (2004) „Micro-meso-macro". *Journal of Revolutionary Economics*, 14, p. 263-279.
- [16] Dillon, J. (2007) "Reflections on widening participation: macro influences and micro implications." *Journal of the Institute for Access Studies and the European Access Network*, 9, (2), p. 16-25.
- [17] DiMaggio P. J. & Powell, W. W. (1983) "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields". *American Sociological Review* 48, (2), p. 147-160.
- [18] Durkheim, E. (1984). *The Division of Labor in Society*. New York: The Free Press.

- [19] Edmondson, A. C. (1996) "Learning from mistakes is easier said than done". *J. Appl. Beh. Sci.* 32, p. 5-28.
- [20] Frey, J. H. (1994) "Deviance of organizational subunits: the case of college athletic departments". *Journal of Sport & Social Issues*. 18, (2), p. 110-122.
- [21] Gao, Y. (2010) "Mimetic isomorphism, market competition, perceived benefit and bribery of firms in transitional China", *Australian Journal of Management*. 35, (2), p. 203-222.
- [22] Giddens, A. (1984). *The Constitution of Society*, Berkeley: University of California Press.
- [23] Glebovskiy, A. (2019) "Criminogenic isomorphism and groupthink in the business context". *International Journal of Organization Theory & Behavior*. 22, (1), pp. 22-42.
- [24] Glebovskiy, A. (2020) "Anti-fraud measures and inherent criminogenesis in business organisations" [Doctoral dissertation, Middlesex University London]. MDX Campus Repository. <https://eprints.mdx.ac.uk/id/eprint/29904>
- [25] Goldman, G. & Callaghan, C. W. (2015) "A Holistic Synthesis of the Organisation Theories". *Journal of intercultural Management*. 7, (4), p. 5 – 19.
- [26] Gottfredson, M. & Hirschi, T. (1990). *A General Theory of Crime*. Palo Alto, CA: Stanford University Press.
- [27] Hambrick, D. C., Finkelstein, S., Cho, T. & Jackson, E. M. (2004) "Isomorphism in reverse: Institutional theory as an explanation for recent increases in intraindustry heterogeneity and managerial discretion". *Research in Organizational Behavior*. 26, p. 307-350.
- [28] Hamilton, V. L. & Sanders, J. (1992) "Responsibility and risk in organizational crimes of obedience". in Staw, B. M. and Cummings, L. L. (Eds), *Research in Organizational Behavior*. 14. Greenwich, CT: JAI Press, p. 49-90.
- [29] Heath, J. (2008) "Business Ethics and Moral Motivation: A Criminological Perspective". *Journal of Business Ethics*. 83, (4), p. 595-614.
- [30] Heckathorn, Douglas D. (1990) "The Micro-Macro Link". *Social Forces*, 1990, Vol. 68. (3), p. 940 – 943.
- [31] Herbert, C., Green, G. S. & Larrogoite, V. (1998) "Clarifying the reach of a general theory of crime for organisational offending: A comment on Reed and Yeager". *Criminology*. 36, (4), p. 867 – 884.
- [32] Hinrichs, K. (2007) "Follower propensity to commit crimes of obedience. The role of leadership beliefs". *Journal of Leadership & Organizational Studies*. 14 (1). p. 69-76.
- [33] Hofmann, W., Meindl, P., Mooijman, M. & Graham, J. (2018) "Morality and self-control: How they are intertwined and whether they differ." *Crime Directions in Psychological Science*, 27, (4), p. 286-291.
- [34] Huber, W. D. (2017) "Forensic Accounting, Fraud Theory, and the End of the Fraud Triangle". *Journal of Theoretical Accounting Research*, 12 (2), p. 28-48.
- [35] Huff, T. E. (1989) "The Micro-Macro Link. Jeffrey C. Alexander, Bernhard Giesen, Richard Munch, Neil J. Smelser". *American Journal of Sociology* 95, (2), p. 456-458.
- [36] Jackall, R. (1988). *Moral mazes: The world of corporate managers*. New York: Oxford University Press.
- [37] Janis, I. (1972). *Victims of Groupthink*. Boston, MA: Houghton Mifflin.
- [38] Kaklauskas, A., Kelpsiene, L., Zavadskas, E., Bardauskiene, D., Kaklauskas, G., Urbonas, M. & Sorakas, V., (2011) "Crisis management in construction and real estate: conceptual modelling at the micro- meso- and macro levels". *Land Use Policy*, 28, p. 280-293.
- [39] Kalbers, L. P. (2009) "Fraudulent financial reporting, corporate governance and ethics: 1987-2007". *Review of Accounting and Finance*. 8 (2), p. 187 – 209.
- [40] Klikauer, T. (2014) "Milgram and obedience to organisational authority". *Organisation* 21, (6), p. 947-953.
- [41] Kramer, R. C. (2010) "Encyclopedia of Criminological Theory: Vaughan, Diane: The Normalization of Deviance". London: SAGE Publications, Inc., p. 977 – 979.
- [42] Kulik, B. W., O'Fallon, M. J. & Salimath, M. S (2008) "Do Competitive Environments Lead to the Rise and Spread of Unethical Behavior? Parallels from Enron". *Journal of Business Ethics*. 83, (4), p. 703-723.
- [43] Kwon, B., Farndale, E. & Park, J. (2016) "Employee voice and work engagement: macro, meso, and micro-level drivers of convergence?" *Human Resource Management Review*, 26, p. 327-337.
- [44] Leonard, W. N. & Weber, M. G. (1970) "Automakers and dealers: a study of criminogenic market forces". *Law and Society Review*. 4, p.407-424.
- [45] Lokanan, M. (2015) "Challenges to the fraud triangle: Questions on its usefulness". *Accounting Forum*, 39 (3). pp. 201-224.
- [46] MacGregor, J. & Stuebs, M. (2014) "The Silent Samaritan Syndrome: Why the Whistle Remains Unblown". *Journal of Business Ethics*. 120 (2), p. 149-164.
- [47] Merton, R. (1938) "Social structure and anomie". *American Sociological Review*. 3, p.672-682
- [48] Messina, F. M. (1997) "Common-sense approaches to fraud awareness prevention detection". *Nonprofit World*. 15, (4), p. 36-38.
- [49] Milgram, S. (1974). *Obedience to Authority: An Experimental View*. New York: Harper & Row.
- [50] Millman, M. (1977). *The Unkindest Cut*. New York: Morrow
- [51] Moore, C., Detert, J. R., Klebe Treviño, L., Baker, V. L. & Mayer, D. M. (2012) "Why employees do bad things: moral disengagement and unethical organizational behavior". *Personnel Psychology*. 65 (1), p. 1-48.
- [52] Morales, J., Gendron, Y. & Guénin-Paracini, H. (2014) "The construction of the risky individual and vigilant organization: A genealogy of the fraud triangle". *Accounting, Organizations and Society*. 39, p. 170-194.
- [53] Morang, S. C. (2016) "A clueless organization? Wells Fargo phony-account fraud teaches us lessons". *Fraud Magazine*. 31, (6).
- [54] Murphy, P. & Dacin, T. (2011) "Psychological pathways to fraud: understanding and preventing fraud in organisations". *Journal of Business Ethics*. 101, p. 601-618.

- [55] Needleman, M. & Needleman, C. (1979) "Organizational crime: two models of criminogenesis". *The Sociological Quarterly*. 20, (20), p. 517–528.
- [56] Palacios, J. H. (2015) Corporate crime – its underestimation and breaching to ethics and humanity from a criminological perspectives [Online]. Available at <http://cienciasjuridicas.javeriana.edu.co/documents/3722972/6187126/7+Hernandez.pdf/0c8700ec-216f-4dbb-8761-23e8a4022f6b> [Assessed on 25 March 2021]
- [57] Palmer, D. & Maher, M. (2006) "Developing the process model of collective corruption". *Journal of Management Inquiry*. 15, (4), p. 363-370.
- [58] Piquero, N. L. & Piquero, A. R. (2006) "Control balance and exploitive corporate crime". *Criminology*. 44, (2), p. 397-431.
- [59] Porter, M. (1980). *Competitive Strategy*. New York: Free Press.
- [60] Power, M. (2013) "The apparatus of fraud risk". *Accounting, Organizations and Society*, 38 (6), p. 525-543.
- [61] Reed, G. E. & Yeager, P. C. (1996) "Organizational offending and neoclassical criminology: Challenging the reach of A General Theory of Crime". *Criminology*. 34, p. 357-382.
- [62] Ruggiero, V. (2015). "Justifying crimes of the powerful". In G. Barak (Ed.). *The Routledge International Handbook of the Crimes of the Powerful*. London: Routledge, p. 62-72.
- [63] Shin, Y. (2012) "CEO ethical leadership, ethical climate, climate strength, and collective organisational citizenship behavior". *Journal of Business Ethics*. 108, p. 299-312.
- [64] Sliter, J. (2007) "The price of corporate crime: the risks to business". *Journal of Financial Crime*. 14, (1), p. 12 – 16.
- [65] Sutherland, E. H. (1949). *White-collar Crime*. New York, NY: Holt Rinehart & Winston.
- [66] Sykes, G. & Matza, D. (1957) "Techniques of Neutralization: A Theory of Delinquency". *American Sociological Review*. 22, p. 664–670.
- [67] Talib, N. & Fitzgerald, R. (2016) "Micro-meso-macro movements; a multi-level critical discourse analysis framework to examine metaphors and the value of truth in policy texts. *Critical Discourse Studies*", 13, (5), p. 531-547.
- [68] Tullock, G. (1996) "Corruption theory and practice". *Contemporary Economic Policy*. 14, p. 6–13.
- [69] Vaughan, D. (1998) "Rational choice, situated action, and the social control of organizations". *Law & Society Review*. 32, p. 23-61.
- [70] Vaughan, D. (1999a) "The Dark Side of Organizations: Mistake, Misconduct, and Disaster." *Annual Review of Sociology*. 25, (2), p. 271–305.
- [71] Vaughan, D. (1999b). "The Macro-Micro Connection, Culture, and Boundary Work." in Patricia Ewick, Robert Kagan and Austin Sarat (eds.). *Social Science, Social Policy, and Law*. New York: Russell Sage, pp. 289–319.
- [72] Vaughan, D. (2002a) "Criminology and the sociology of organizations". *Crime, Law & Social Change*. 37, p. 117-136.
- [73] Vaughan, D. (2002b) "Signals and interpretive work: the role of culture in a theory of practical action" in Karen A. Cerulo (ed.). *Culture in Mind: Toward a Sociology of Culture and Cognition*. New York: Routledge, p. 28-54.
- [74] Vaughan, D. (2005) "The normalization of deviance: Signals of danger, situated action, and risk". In H. Montgomery, R. Lipshitz, & B. Brehmer (Eds.). *How professionals make decisions*. Mahwah, NJ: Lawrence Erlbaum.
- [75] Vaughan, D. (2007) "Beyond macro- and micro-levels of analysis, organizations, and the cultural fix". in H. N. Pontell, ed., & G. Geis (Eds.). *International handbook of white-collar and corporate crime*, p. 3–24.
- [76] Vernard, B. & Hanafi, M. (2008) "Organisational Isomorphism and Corruption in Financial Institutions: Empirical Research in Emerging Countries". *Journal of Business Ethics*. 81, p. 481 – 498.
- [77] Wells, J. T. (1997) *Occupational fraud and abuse: How to prevent and detect asset misappropriation, corruption and fraudulent statements*. Austin, Texas: Obsidian Publishing Company.
- [78] Weick, K. E. (1979). *The Social Psychology of Organizing* (2nd. ed.). Addison Wesley: Reading MA.
- [79] Whyte, D. (2009). *Crimes of the Powerful: A Reader*. Maidenhead: Open University Press.
- [80] Wikström, P. (2004) Crime as alternative: Towards a cross-level situational action theory of crime causation. In *Beyond empiricism: Institutions and intentions in the study of crime*, ed. Mccord, J. New Brunswick, NJ: Transaction Publishers.
- [81] Wikström, P. & Treiber, K. (2007) „The role of self-control in crime causation beyond Gottfredson and Hirschi's general theory of crime." *European Journal of Criminology*, 4, (2), 237-264.
- [82] Wikström, P. (2010) Situational action theory. In Cullen, FT & Wilcox, P (eds), *Encyclopedia of criminological theory*, SAGE Publications, Inc., Thousand Oaks, CA, pp. 1001-1008.
- [83] Wolfe, D. T. & Hermanson, D. R. (2004) "The fraud diamond: Considering the four elements of fraud". *The CPA Journal*. 74, (12), p. 38-42.
- [84] Yusof, N. A. M. & Lai, M. L. (2014) "An integrative model in predicting corporate tax fraud". *Journal of Financial Crime*. 21, (4), p. 424-432.