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A Discussion of Co-offending behaviours, Social Bonds and Implications for Auditing Practice, Research and Pedagogy

Abstract

Purpose: This study is to provide the discussion about the underlying reasons for predicting someone's willingness to co-offend in fraud. In doing so, as a main question is *how are group-based fraudulent activities initiated, and what rationales and motivations do individuals have for engaging in them?*.

Design/methodology/approach: We collected data through semi-structured interviews. We discussed with several civil servants, in a regional government in Indonesia, about the ways Indonesian civil servants made decisions when they were in normalised fraudulent behaviours. They shared their perspectives and opinions on the pressures and incentives that drive fraudulent actions, as well as the mechanisms through which these behaviours are rationalised and perpetuated within the institutional context. The interviews highlighted the complexity of the issue in Indonesian local governments in general.

Findings: In the context of co-offending behaviour, the findings suggest that neither reinforcements nor associations, even in combination, are adequate predictors of these behaviours. These factors act as *initial* triggers in situations that provoke cognitive dissonance[1], but one's attitudes toward fraud do not independently motivate law-breaking. The predictive power of individual or social enablers is intertwined with the process of definition or rationalisation. Co-offending behaviours tend to occur and recur in contexts where rationalisations have already been learned and applied. Moreover, the adherence to or rejection of rationalisations favourable to fraud is influenced not just by the consequences of the act but significantly by one's moral and cognitive readiness[2] to imitate observed behaviours. Therefore, while favourable opportunities may increase the likelihood of co-offending acts, these acts do not inevitably occur without consideration of their moral implications.

Originality: Our research significantly contributes to the expansion of fraud theories and models, and managerial/practice for instance by complementing the effectiveness of SAS No. 99 and the COSO internal control framework.

Keywords: co-offending, fraud, different reinforcements, different associations, imitation, definition or rationalisation

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[1] Cognitive dissonance is the mental discomfort or tension that occurs when a person holds two or more conflicting beliefs, values, or attitudes simultaneously.

[2] Moral and cognitive readiness refers to the extent to which a person has internalised justifications for wrongdoing and developed the mental shortcuts that allow them to bypass ethical reflection. For example, a junior employee who sees a senior manager manipulating financial data and rationalising it as "protecting the organisation" may begin to adopt similar justifications, particularly if they perceive it as expected or rewarded.

1. Introduction

"The clearer the picture of potential fraud drivers, the more robust and comprehensive our safeguards will be" (Authors)

There are three big theories, fraud triangle (Cressey, 1953), social control theory (Hirschi, 1969), and differential association theory (Sutherland, 1947), used by previous studies in the fields of accounting, auditing and business to explain the occurrences of criminal behaviours in an organisation (Cooper et al., 2013). Those theories are good. However, there is a growing belief that those required our intentions. For instance, the fraud triangle largely overlooks the dynamics of group behaviour and collusion (Van Akkeren and Buckby, 2017). Hirschi's social control theory overlooks the agency of individuals and the potential for resilience and positive change even in the absence of strong conventional ties (Costello and Laub, 2020). Additionally, social control theory tends to underemphasise the influence of peer dynamics and the broader social environment, which can significantly shape behaviours (Agnew, 1985; Schoepfer et al., 2014). On the other hand, Sutherland's differential association theory accounts for the transmission of deviant behaviour through social networks but does not *fully* explain the dynamics of co-offending, such as how individuals coordinate and sustain their fraudulent activities over time, or how group dynamics influence the escalation and perpetuation of fraud (Craig and Piquero, 2016). Our study seeks to address these gaps by broadening our analytical lens to incorporate these overlooked aspects, in the context of co-offending behaviour.

In the fraud literature, we found almost no mention of co-offending in fraud or collaborative fraud. Empirical researchers have most often studied individual fraud, arising from the convergence of financial pressure, opportunity, and rationalisation (e.g. Dorminey et al., 2012; Donegan and Ganon, 2008; Morales et al., 2014; Dellaportas, 2013). Those studies primarily consider the actions and mind-set of a single perpetrator. This model has been instrumental in developing anti-fraud measures and understanding the risk factors associated with individual fraudsters. Yet, fraud is not always a solitary crime (Free, 2015). This focus on individual motivations is also consistent with research reported by some scholars (Fleming et al., 2022; Tunley, 2011). Opportunity alone fails to elucidate the dynamics of co-offending, as it does not account for the critical interplay of moral uncertainties and strategic interdependencies that shape fraudulent behaviour. Moral uncertainties, such as doubts about the honesty or corruptibility of potential partners, and strategic interdependencies, where the actions of one

individual influence the decisions of others, are essential aspects in understanding the full scope of fraud (Fleming et al., 2022; Bishop et al., 2017).

In addition, we also did not find a complete discussion about collaborative fraud in key professional guidelines such as the Statement of Auditing Standard No. 99 (SAS No. 99) or in widely adopted frameworks for organisational control, including the COSO Internal Control – Integrated Framework. Although both documents are crucial in guiding fraud risk assessments and internal control systems, their treatment of fraud remains largely individual-centric, grounded in the fraud triangle concept, which focuses on pressure, opportunity, and rationalisation at the level of a single perpetrator. Essentially, SAS No. 99 briefly mentions collusion, particularly as a means of overriding controls. However, it does not explore the social dynamics, trust-based interactions, or relational interdependencies that underpin collaborative fraud. Similarly, the COSO framework highlights the importance of ethical culture and risk mitigation, but it does not provide guidance on identifying or managing risks related to group-based fraudulent behaviour. This lack of detailed attention to collaborative fraud creates a notable gap between professional standards and the complex realities of organisational fraud today.

What we currently know about co-offending in fraud involves complex interactions and collaboration between individuals (Tillman, 2009; Chimonaki et al., 2023). Prior studies have treated the fraudulent occurrences simplistically as employees' general perception based on their consequences for committing such actions (Dellaportas, 2013; Lokanan, 2015; Schuchter and Levi, 2015). However, those studies, do not tell us and observe how individuals come together, share knowledge, and reinforce each other's deviant behaviours. Additionally, how fraud varies with the type of organisational culture is even less clear (Reurink, 2018; Lokanan and Sharma, 2023). We were unable to identify any paper in the literature that has analysed such concerned issues. Given these unanswered questions and the potential importance of accountability in today's business organisations (Seda and Tilt, 2023), our study inductively seeks to delve deeper into the nuanced social dynamics and group behaviours that facilitate such activities.

In line with the existing empirical literature (Free and Murphy, 2015), our theoretical findings suggest that when agents are uncertain about the intrinsic honesty of their potential fraud partner, they are less likely to engage in co-offending behaviours. This uncertainty acts as a deterrent because the risk of engaging with an honest partner, who may expose or penalise

fraudulent behaviour, outweighs the potential benefits of fraud. As for the resulting levels of fraud in organisations, we find that the presence of strategic complementarities in fraud decision-making – where the decision of one individual to engage in fraud increases the likelihood of others doing the same – can generate multiple fraud equilibria. This means that individuals can settle into different states of fraud prevalence based on the initial conditions and the interactions between agents. However, the individuals' uncertainty regarding their partners' moral costs, which include the potential for punishment, social disapproval, or personal guilt, leads to a lower probability that individuals will end up in a systemic fraud trap, where fraud becomes pervasive and self-reinforcing. We perceive that this uncertainty also creates a natural check on the spread of fraud, as the fear of encountering an honest partner introduces a significant risk that discourages individuals from initiating or participating in fraudulent activities, thus promoting a more honest and transparent society.

2. Literature review and theoretical framework

2.1 Antecedences of fraudulent behaviour – Prior studies

The fraud triangle theory, with its components of financial pressure, opportunity, and rationalisation, is a cornerstone in the study of fraud (Cressey, 1953). Cressey (1953) theorises that the convergence of these three elements is essential for fraudulent behaviour to manifest. However, critical review, as suggested by Free (2015), shows significant limitations and oversights in this theory. One key flaw is its reliance on financial pressure as a primary motivator, which simplifies the complex psychological and socio-economic aspects influencing individuals. Other scholars argue that not all fraud perpetrators are driven by financial duress. For instance, some are motivated by greed, power, or a desire to outperform peers (Morales et al., 2014; Raval, 2018), indicating that financial pressure alone cannot comprehensively account for fraudulent actions.

Moreover, the theory's emphasis on opportunity, characterised by weak internal controls or lack of oversight (Dellaportas, 2013; Lokanan, 2015), is too narrow and fails to consider the dynamic and evolving nature of organisational environments. Modern fraud often occurs, despite robust controls, due to sophisticated schemes and collusion (Fleming et al., 2022; Brandt and Svendsen, 2013). As such, the term opportunity must be understood in a broader context that includes technological advancements and organisational culture. Furthermore, the fraud triangle theory does not adequately address the role of systemic issues such regulatory

gaps, and economic conditions that can facilitate fraud. One study in the field of accounting fraud found that the spread of norms and values within an organisation was conducive to the commission of crime, illustrating a dimension not fully captured by the fraud triangle (Free and Murphy, 2015; Trompeter et al., 2014). This observation highlights the role of organisational culture and social influence, which can create an environment where unethical behaviour is normalised and even encouraged. While the fraud triangle focuses on financial pressure, opportunity, and rationalisation as the key elements of fraud, it does not explicitly account for the way organisational norms and values can shape such elements (Free and Murphy, 2015).

In response to these limitations, for example, Wolfe and Hermanson (2004) proposed the Fraud Diamond model, which introduces a fourth dimension – *capability*. According to their perspective, even if pressure, opportunity, and rationalisation are present, fraud is unlikely to occur unless the perpetrator possesses the necessary skills and intelligence to exploit weaknesses in the system. This addition emphasises that fraud is not only about motivation and justification but also about the individual's power and skills to execute the act. Moreover, another controversial fraud model is the Fraud Pentagon (Marks, 2012, 2014). This model expands upon the traditional Fraud Triangle and the subsequent Fraud Diamond by introducing two additional elements: *arrogance* and *competence*. Marks argues that fraud cannot be fully explained without considering the behavioural and ethical dimensions that influence a perpetrator's decision-making process.

There is no fundamental difference between these two fraud models, in terms of the theoretical paradigm, with the Fraud Triangle. Both the Fraud Diamond and the Fraud Pentagon retain the core assumptions of the original model. Although the Fraud Diamond introduces 'capability' and the Fraud Pentagon adds 'arrogance" and "competence', these elements do not represent a departure from the underlying rational choice framework that characterises the Fraud Triangle (Cressey, 1953). We perceive that all three models assume that individuals weigh perceived pressures, opportunities, and justifications before committing fraud, and the additional elements simply serve to enrich the explanation of *how* and *why* these decisions are made. So, in this sense, the alternative models function more as extensions rather than as conceptual shifts, maintaining the same behavioural foundation rooted in situational and psychological factors. Consequently, the Fraud Diamond and Fraud Pentagon may offer greater descriptive depth, but they do not challenge or redefine the paradigm itself. Additionally, their continued reliance on individual agency and internal motivations illustrates a shared epistemological

stance, which limits the models' evolution in addressing broader systemic or organisational dynamics that may also contribute to fraudulent behaviour.

It is to say that these fraud models – such as the Fraud Triangle, Fraud Diamond, and Fraud Pentagon – have been foundational in shaping our understanding of fraudulent behaviour. However, their reductionist approach tends to overlook the multifaceted and interconnected factors that influence fraud. These models primarily focus on individual-level motivations and cognitive processes, often isolating internal traits and environmental pressures without sufficiently accounting for broader social, relational, and structural dynamics (Van Akkeren and Buckby, 2017). As a result, some scholars have increasingly called for more comprehensive theoretical paradigms that incorporate a wider array of influences, including organisational culture, group dynamics, and ethical climate contexts, in order to better capture the complexity of fraudulent behaviour (Trompeter et al., 2014; van Driel, 2018). In response to this growing concern, the development of alternative frameworks has begun to shift attention toward a more holistic understanding of fraud. Before introducing such a framework, however, it is essential to explore the concept of co-offending behaviours, often relying on social relationships, shared justifications, and mutual reinforcement, which significantly shapes both the motivation and execution of the fraudulent act.

2.2 Co-offending behaviours

Co-offending, under the study of delinquent adolescents, refers to the phenomenon where individuals commit crimes in collaboration with others rather than acting alone (Chimonaki et al., 2023). It occurs for various reasons, including the pooling of skills and resources, shared rationalisations, and mutual reinforcement of criminal intent (Lantz, 2020). Initial studies on the relational dynamics among delinquent adolescents concentrated predominantly on quantifying both the prevalence of delinquent companions and the frequency of delinquent conduct within peer groups (Agnew, 1991). The elucidations derived from these empirical analyses were grounded in the tenets of two seminal criminological paradigms: Hirschi's (1969) social control theory, and Sutherland's (1947) differential association theory.

The three necessary conditions that must be met for co-offending to occur: willingness to co-offend, attractiveness to potential co-offenders, and the ability to find willing accomplices (Sutherland, 1947; Lantz, 2021). García-Ponce et al., (2023) highlight how the interplay between an individual's characteristics and their surrounding environment influences their

involvement in co-offending. Without the cooperation of multiple parties, co-offending will not occur. It is also because a significant barrier to co-offending is risk. Successful co-offending requires a high degree of trust and cooperation, which can be difficult to establish and maintain. More specifically, as Gooch and Treadwell (2020) argued, the inherent uncertainty and unpredictability of human behaviours make social exchanges, especially those involving illicit activities, fraught with risk. Following this, the involvement of multiple individuals also means that the potential points of failure increase, as each participant's actions must align perfectly with the other's ones.

2.3 Akers' social learning theory – underpinning theory

Akers' social learning theory stands as one of the foremost theories explaining criminal behaviour. According to Akers (2009), criminal behaviour is a product of social interactions and learning processes within a group context, where individuals are influenced by their peers through association, imitation, shared definitions, and the balance of rewards and punishments.

- Differential association is the process that emphasises the role of social context and learned behaviour, suggesting that criminal behaviour is not innate but rather acquired through the continuous and close association with those who hold deviant values and norms.
- Definitions are a person's own evaluative judgments, attitudes, or meanings attached to a criminal behaviour. It plays a crucial role in determining whether an individual perceives certain actions as acceptable or unacceptable. For instance, if a person frequently associates with individuals who rationalise and justify criminal activities, they may develop favourable definitions toward such behaviours.
- Differential reinforcement refers to how the outcomes individuals have experienced, are currently experiencing, or expect to experience in the future influence their likelihood of engaging in such criminal behaviours.
- Imitation is a fundamental aspect of social learning theory that individuals learn criminal behaviours by watching others and then replicating those actions.

One significant challenge in measuring criminal behaviour within a criminal network lies in the non-random nature of friendships, which complicates the interpretation of causal relationships. Criminals do not form friendships randomly; rather, they are often drawn to peers with similar backgrounds, interests, and behavioural tendencies, a phenomenon known as homophily (Triplett and Turner, 2023; Ward and Forney, 2020). In Meneghini and Calderoni, (2022), homophily serves as a critical catalyst in the formation of criminal alliances or close-knit associations. Sergi and Storti, (2021) have shown that that in tightly-knit criminal networks, the density of connections increases the likelihood of co-offending due to the ease

of communication and coordination. Such networks operate as cohesive units where trust and loyalty are paramount currencies, often replacing conventional societal norms with a distinct set of values that prioritise loyalty to the group above adherence to legal norms.

For offenders, the desire to belong and gain acceptance within a peer group often guides their social choices. As a result, it leads to the formation of tightly-knit groups that share common characteristics and values (Ward and Forney, 2020). This network of like-minded individuals provides not only the opportunity but also the support and reinforcement needed to engage in fraudulent activities. So, once these ties are established, they become potent channels through which peer influence operates. We perceive that the dynamics within these social networks can profoundly affect individual behaviours, as group norms and values are transmitted and reinforced through regular interactions (Kleemans and Van Koppen, 2020). Then, the bonds formed within these networks are often stronger and more consequential due to the shared risks and stakes involved in their criminal activities (Marquette and Peiffer, 2021).

2.4 Proposed theoretical framework

In organisational settings, particularly regarding co-offending behaviour in accounting fraud, the principles of homophily[3] act as a powerful driver of co-offending behaviour. One of studies on co-offending and bribery (Button et al., 2018) has shown that the co-offending behaviour, in such a crime, is often characterised by a high degree of coordination and collusion among group members. Similarly, in the context of accounting fraud, its complexity require collaboration, where each participant plays a specific role in executing and concealing the fraudulent activities (Free and Murphy, 2015; Van Akkeren and Buckby, 2017). This collaboration is facilitated by the strong ties within the network, where trust and mutual dependency ensure that members adhere to the group's objectives and maintain the secrecy of their actions. In this context, Akers' social learning theory provides insights into individual and group-level contexts, structural conditions and characteristics that may lead to co-offending behaviour.

As Van Akkeren and Buckby (2017) suggest, once fraudulent practices are initiated by a few individuals, they can quickly spread through the network as employees observe and learn from their peers. The pressure to conform to group norms and the desire to be accepted within the

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[3] A homophily refers to the idea that people tend to form connections and associate with others who are similar to themselves.

clique lead employees to participate in or turn a blind eye to collusive acts of fraud. It is not simply about the lack of sufficient controls and oversight to deter it (Dellaportas, 2013; Lokanan, 2015). Rather, it is fundamentally a matter of the mutual dependence among co-offenders, ensuring that they are motivated to maintain the conspiracy and protect one another from detection. It is to argue that these mechanisms do not operate in isolation but are deeply interconnected. They create a reinforcing loop that perpetuates certain behaviours within the organisation. For example, if referring to principle of Akers' social learning theory (2009), associations formed based on shared backgrounds and interests lead to imitation of behaviours observed within these networks. The behaviours that are imitated are often justified through shared definitions that rationalise the actions. Then, the continuation of these actions is further reinforced by the balance of rewards and punishments that either encourages or deters the behaviour (Raval, 2018).

Within this context, co-offending behaviour is not merely a matter of opportunistic deviance but emerges as a strategically coordinated response to systemic incentives. We propose that when peers share this utilitarian view (for example, 'the greatest good for the company') (Zhang et al., 2025), fraud becomes embedded in team dynamics, rationalised collectively, and sustained through imitation, trust, and tacit approval. This reflects a deeper paradigmatic shift in how ethical boundaries are interpreted within organisational contexts. Rather than operating from a deontological framework that emphasises adherence to rules and moral duties (Xu et al., 2016; Holyoak and Powell, 2016), employees in such environments adopt a consequentialist orientation, where actions are judged by their outcomes – namely, the benefit they bring to organisational success or survival. This shift is further reinforced by the instrumental ethical climate (Victor and Cullen, 1988), which legitimises rule-breaking when it aligns with performance goals, and by the normalisation of deviance (Courtois and Gendron, 2017), which gradually erodes the moral sensitivity of team members. Consequently, this dynamic creates a self-perpetuating cycle, where unethical behaviour is continually rationalised, supported, and carried out by individuals who, individually, may have never engaged in fraud but, collectively, see no other viable option within the system. This is especially true in hierarchical structures where subordinates are rewarded for conforming to the dominant culture and discouraged from questioning authority (Mukherjee and Saritha, 2024). In such environments, co-offending is often framed not as wrongdoing, but as collaborative problem-solving, especially when employees perceive that they are fulfilling managerial expectations or protecting the organisation from external threats.

Moreover, Akers (2009) emphasise that socialisation and internalisation processes in criminal behaviours are not static. If considering the accounting fraud (Hasan et al., 2023), they change over time to reflect changes both within the peer group and in the broader social environment. As explained by Akers (2009), changes manifest in friendship tie choice. Changes in friendship tie choice frequently stem from the selection process. Given this, the selection process involves criminals actively choosing friends based on shared interests, values, or behaviours, which can lead to a reshaping of their social networks. Under Yenkey's (2018), study, it is considered as a social exchange process. Employees who frequently associate with colleagues who engage in or justify fraudulent behaviour are likely to adopt similar practices. Yenkey's (2018) conceptualisation of fraud as a social exchange process is strongly supported by the framework of Unethical Pro-Organisational Behavior (UPB) proposed by Umphress et al. (2010). At the core of both studies lies the recognition that unethical behaviour is not solely the result of individual moral failure, but rather emerges through social learning, moral rationalisation, and group-level reinforcement. Then, these changes in their associations lead to a redefinition of what behaviours are considered acceptable within the group, influencing the socialisation process. Therefore, criminal behaviour changes in continuous time, reflecting the dynamic nature of socialisation and internalisation processes.

3. Methodology

3.1 Data

Our investigation draws upon the perspectives and tangible experiences of civil servants in a local government in Indonesia. This local government has 34 departments/agencies supporting its operations, each playing a crucial role in various aspects of regional governance and public service delivery. This local government gained national notoriety due to a corruption scandal implicating two regents from successive leadership terms. Notably, these regents hail from the same familial lineage.

Initially, we employed purposive sampling targeting specific individuals and departments. However, after the sixth interview, we faced resistance from potential informants, despite referrals from previous participants. This unexpected obstacle disrupted our progress and prompted a reassessment of our strategy. Obviously, we continued our efforts to reassure informants that the research solely aimed to gather their perspectives or opinions on why fraud cases persist within local governments in Indonesia. We clarified to the informants that this

was not an investigation of any specific case, but rather an inquiry into their personal views and insights on the broader issue of fraud. After a long wait, we finally secured seven additional informants, bringing the total number of informants in this study to 13 informants. The new informants, like their predecessors, held various positions within the government, each with unique perspectives and experiences. This diversity added layers to our understanding, highlighting both common themes and unique challenges faced by officials at different levels and in different departments.

Of the 13 informants, there were 9 men and 4 women. They were in the age range of 49-55 and 56-60 years, with more than 25 years of work experience. The professional positions held by the informants were varied, providing a broad perspective on the fraud dynamics within regional governments. Specifically, two informants served as department secretaries, five as department heads, three as heads of finance sub-divisions, and the remaining three as section heads within their respective departments.

It is important to note here that there is no fixed rule in the methodological literature about how many informants or interviewees are ideal for qualitative research – it is still a topic of debate. But according to Guest et al. (2006), what really matters is not the number of people, but how rich and meaningful the data is. Researchers need to make sure they reach data saturation. Guest et al. (2006) point out that the number of participants depends on the nature of the research topic. If it is more diverse (heterogeneous), it usually needs a larger sample. But if the topic involves a more similar group of people (homogeneous), fewer interviews can be enough. Specifically, Guest et al. (2006) argue that if the goal is to explore common beliefs, practices, or experiences among similar people, six to twelve interviews might already be sufficient. Operationally, by the time we reached the 13th interview, we were not hearing anything new – what informants 12 and 13 shared was very similar to what earlier participants had already said. This finding aligns with previous research by Hennink et al. (2017), whose results closely mirror those of Guest et al. (2006). Both studies observed that data saturation typically occurs between seven and twelve interviews, with many fundamental elements of key themes already emerging as early as Interviews 1 to 6. Additionally, our study is also similar to Namey et al. (2016), as they reach data saturation between eight and sixteen interviews.

Although our informants vary in roles, gender, and age, they can still be considered homogeneous in qualitative research when they share core attributes relevant to the study's

focus (Guest et al. 2006)[4]. Shim et al. (2014) argue that homogeneity and heterogeneity are not fixed attributes but are instead situational properties actively constructed by researchers based on the specific aims and contexts of their studies. For example, Bowers et al. (2000) conduct a meta-analysis of homogeneity and heterogeneity with respect to gender, ability level, and personality. According to Adler (1995), homogeneity can be associated to "the level of motivation among group members" (p.03) as grounds for a sense of universality. So, homogeneity in such studies does not necessarily mean uniformity in all demographic or professional aspects, but rather similarity in relevant experiences, contexts, or perspectives related to the phenomenon being studied. In our case, despite their varied positions and demographic profiles, all informants operate within the same organisational environment and are involved in or have insight into the same system, process, or issue under investigation. This shared institutional context and common exposure to the topic of interest create a cohesive group in terms of the knowledge and experiences they can offer. Therefore, based on our study's focus and epistemological assumptions, we believe our sample is quite homogeneous.

3.2 Interview set

All informants are deeply involved in the processes that define the allocation and utilisation of public funds. What is being told goes beyond the routine aspects of budget management. The informants explained a practice of budget manipulation that commonly occur in Indonesian local governments in general. This practice is not an isolated incident but a systemic issue, commonly done by government agencies across Indonesia (Tarjo and Riskiyadi, 2022). They described how budget figures were often adjusted to meet certain targets or to create the appearance of fiscal discipline. This involved overestimating revenues or underestimating expenditures to present a balanced budget (Tarjo and Riskiyadi, 2022). Additionally, funds earmarked for specific projects were diverted to other uses, often without proper authorisation or documentation. This manipulation is facilitated by the lack of stringent oversight and the

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[4] We define homogeneity based on shared experiences and contextual backgrounds, rather than demographic factors such as gender or age. This approach is grounded in the belief that participants who have undergone similar professional or organisational experiences are expected to provide more coherent and focused insights. By prioritising contextual similarity, we aim to ensure that the data collected reflects common themes and patterns relevant to the phenomenon under study, thus enhancing the depth and relevance of our analysis.

complexity of financial reporting systems, which make it easier to hide discrepancies and irregularities (Kusuma et al., 2017).

3.3 Research Procedure

In terms of research ethics, we always consulted to research literature (Leavy, 2014; Aluwihare-Samaranayake, 2012; Gomes and Duarte, 2020) and prior similar studies (Tarjo and Riskiyadi, 2022; Free and Murphy, 2015). We follow the ways they conducted an interview and the ways they treat the interviewees and the data. We focused on what we should do and what we should not do. Similar to Free and Murphy (2015), we always explained the aim and purpose of this research to each interviewee, as well as informing them how the data would be stored, processed, and displayed in academic paper. Equally important, informants were given the autonomy to withdraw from the interviews at any point without providing justification. It was to ensure that participation remained fully voluntary and respectful of individual comfort levels. As a result, we obtained informed consent from every participant in both written and/ verbal (non-written) forms. One of the information is that their data are not shared with any individuals and third parties. It is to protect the researchers and informants from any unexpected aspects.

At the beginning of the interview, we greeted the participant warmly, expressed gratitude for their willingness to participate, and created a relaxed atmosphere. Operationally, we always provoked discussion by talking about the problem of uncontrolled fraud in the government environments in general. By focusing on a widely recognised issue, we created a common ground that resonates with their own observations and concerns, making them more comfortable and willing to speak freely. When interviewees provided responses, we did not ask many questions. Instead, we gave a response that shows that we agree with their opinion. For example, we might say, "Yes, I agree," or "Wow, it's so hard to prevent it." These affirmations serve multiple purposes. In practice, we listened actively, making mental notes of significant points, and used our body language to convey engagement and interest. For instance, we showed non-verbal gestures, such as nodding, maintaining eye contact, and leaning slightly forward, in reinforcing our verbal affirmations. These gestures signalled that we were fully present and invested in the conversation, which helped to build a conducive environment for open dialogue.

Obviously, during the interview process, we made sure to create a safe and non-judgmental space for our participants, especially when they were talking about sensitive topics like ethical grey areas or past behaviours that could be seen as questionable. From the very beginning, we made it clear that we were not there to judge, criticise, or accuse anyone. Our goal was to understand – not to label. We approached every conversation with empathy and curiosity, focusing on how things happened from the participant's perspective, rather than trying to point out what was right or wrong. These simple actions also fostered a sense of trust and rapport, encouraging them to elaborate further and share more detailed accounts of their experiences.

In terms of validity and reliability, this study employed source triangulation, drawing on data collected from different individuals, at various times, and across distinct departmental settings, as advocated by Meijer et al. (2022). We acknowledged that a given sensitive topic, relying on a single perspective or uniform context could have led to biased or incomplete interpretations. By intentionally engaging informants across different roles, hierarchical levels, and organisational units, the study provided a richer representation of the social dynamics underpinning collaborative fraud. We believe that this triangulated approach may reinforce the trustworthiness of recurring patterns, for example, rationalisations and imitation, and allowed us to observe how contextual nuances – such as timing of interactions or departmental cultures – shaped individuals' willingness to co-offend.

3.4 Analysis

As an initial step, we utilised NVivo software, as recommended by Basit (2003), to manage and organise our qualitative data. However, considering that employing software may not be feasible for coding a limited number of interviews (Basit, 2003), we transitioned to manual coding methods. Isangula et al. (2024) provide a practical guide to manual coding for young researchers, which we found particularly useful. Operationally, we followed the step-by-step procedures recommended by Isangula et al. (2024) and Nowell et al. (2017) to ensure a rigorous and trustworthy thematic analysis.

We began with open coding. During open coding, we sifted through the raw data line by line, identifying recurring words, phrases, and ideas that captured significant aspects of the participants' experiences and perceptions. Each identified segment was assigned a code, which served as a shorthand descriptor of its content. We read and reread the transcripts to ensure that no significant detail was overlooked. This repeated engagement with the text helped us to

become intimately familiar with the data, enabling us to identify subtle patterns and connections that might not have been apparent at first glance. As we assigned codes, we began to see the emergence of preliminary categories. The coding framework we developed included a set of categories that encompassed initiation (financial problems, opportunities), work culture, trust, rationalisation, peer influence, emotional responses, motivations, and detection mechanisms.

We grouped similar codes together, creating clusters of related ideas that started to form the basis for broader themes. Throughout this process, we were vigilant in looking for rival or competing themes or explanations to ensure a robust and comprehensive analysis. This involved considering alternative interpretations of the data and weighing the evidence supporting each possible explanation. We constantly referred back to the research questions and objectives, ensuring that our coding was aligned with the study's aims. Moreover, in our data analysis, we engaged in a thorough comparison of the emerging categories with existing literature in the field. This step was crucial for refining our initial findings and situating them within the broader academic discourse. So, through this groundwork, we started to develop a more integrated and holistic understanding of the data. For instance, we analysed how emotional responses interacted with motivations and rationalisations, or how group structures influenced trust and detection mechanisms.

4. Research results and analysis[5]

The findings of this study are organised into four key theoretical concepts: differential association, definitions, differential reinforcement, and imitation. These are summarised in Table 1.

Table 1: Examples of Key Findings

First-Order Themes	Second-Order Themes	Third-Order Dimensions
"They had common ground… worked together more smoothly"	Social bonding through shared backgrounds	Differential Association
"They invested time in building the relationships"	Time and frequency of interaction	

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[5] The names used in the interview quotes presented in the Research Results and Analysis section are pseudonyms. It is assigned to protect the identities of the participants and maintain confidentiality throughout the study.

First-Order Themes	Second-Order Themes	Third-Order Dimensions
"His team has a strong network out there"	Social networks as enablers of fraud	
". . .I thought it should be right and not wrong"	Moral confusion through repeated exposure	
"Why should you be surprised?" / "Don't overdo it"	Normalisation of deviance	
"I did not have much faith in legal authorities"	Mistrust toward legal systems	Definition
"I observed leaders… what they was doing was not all that bad"	Beneficial comparison	
"If others before me did it and faced no consequences…"	Social justification and precedent	
"We used other people's behaviour as a benchmark"	Internalised social norms	
". . . in positions of power often developed a strong attachment to their roles, viewing them as not just jobs but as symbols of success"	Rewards reinforcing unethical acts	Differential Reinforcement
"All governments are the same… you have to be good at playing roles"	Social liberation through collective mindset	
"If they were doing it and not getting caught, it must be okay"	Social validation of unethical behaviour	Imitation
"They followed the prior leadership's methods…"	Emulating role models	
". . . Looking for projects as many as they could"	Instrumental learning through observed rewards	

Sources: Created by Authors

4.1. Differential association

We found that social interactions contribute to the formation of *'trust'* and cohesion among potential colluders (Van Akkeren and Buckby, 2017). For instance, Nurahmi explained that individuals within her organisation often build relationships based on shared experiences and interests. As argued, it facilitates the coordination of fraudulent activities and the sharing of sensitive information without arousing suspicion. This point is supported by Arya that the interactions are not merely incidental but rather pivotal in shaping the landscape of collaborative endeavours.

> "They had common ground, so I think, it was easier for them to connect and collaborate effectively. They knew each other better and worked together more smoothly" (Nurahmi).

> "They were not just casual exchanges. They shaped the landscape of how teams work together towards common goals (fraudulent documents)" (Arya).

> "Yes, they had regular meetings" (Jesika).

The above quotes also indicate that without *'frequent interactions'*, collaboration may become disjointed, and achievement of goals becomes significantly more challenging (Free and Murphy, 2015; Di Méo, 2023). Ade explained frequent interactions that those increase the opportunities for trust and rapport to develop potential colluders. Munir also emphasised the effect of regular contact on familiarity and interpersonal bonds between colluders.

> "You see, trust and rapport were not just built overnight. They require something much more fundamental" (Ade).

> "Sure, it was not easy for powerless staff to familiarise with internal control mechanisms. [. . .] good coordination was the key" (Munir).

In this sense, others informants (Agus and Reza) added that they (colluders) establish relationships over extended periods, implying a significant *duration* of interaction and association. Jesika explained the amount of time spent among potential colluders that it contributes to an increased probability of engaging in fraudulent behaviours. Accordingly, they create a sense of solidarity and loyalty among colluders, reinforcing their commitment to maintaining secrecy and loyalty to their relationships (Di Méo, 2023). Therefore, it becomes more important for colluders to spend more time with each other (Bright et al., 2020).

> "Well, from what we've observed, it was not just a casual acquaintance. It was a significant duration of interaction and association" (Agus).

> "Exactly, they did not just meet once or twice and call it a day. They invested time in building the relationships" (Reza).

> "Nothing unusual, when you invested a significant amount of time with someone, you developed a bond, a sense of trust. It was like a pact they have among themselves, where they prioritise protecting each other's interests above all else" (Jesika).

According to Linda's description, reference groups serve as *'social networks'* that facilitate opportunities for engaging in fraudulent behaviours. Similarly, Nurahmi elucidated that

potential colluders gain access to resources, information, and social support that enable and encourage their involvement in such behaviours.

> "If anyone joined his team, he'll be safe. His team has a strong network out there" (Linda).

> "The regent must be looking for someone who is loyal to him. All positions were filled with loyal people and must be ready whenever needed. He asked for this and that, everyone had to provide it" (Nurahmi).

Furthermore, *'fraud exposure'* also have a profound impact on individuals, potentially leading them down a path of unethical behaviour and fraudulent activities. Reza's statement reflects the complex interplay between perception, uncertainty, and moral judgment in the context of fraud exposure. His journey from uncertainty to moral conviction highlights the challenges and complexities inherent in navigating ethical dilemmas. His environment blurs the line between right and wrong and fosters a sense of resignation or apathy towards addressing fraudulent behaviour. However, due to the persistence and longevity of the rumoured budget cuts, Reza perceived it as an accepted part of the organisational culture. Similarly, Ade's observation highlights the systemic nature of fraud exposure within certain environments. He comes to view such behaviour as an inherent and tolerated phenomenon, thereby lowering people's moral barriers to participation or complicity.

> "I don't know whether it's a rumour or not but I overheard it (some money for a professional journey as well as recreations out of town). I don't know what kind of management it is. It went on for a long time. I thought it should be right and not wrong" (Reza).

> "Whenever there is a change in leadership here, this particular action (officer demands payment for issuing business permit) is consistently taken" (Ade).

This *'normalisation'* of fraudulent behaviour lowers inhibitions and makes individuals more susceptible to engaging in similar acts themselves (Fleming et al., 2022). To support this point, Nasir and Yuli argued that:

> "Why should you be surprised?" (Nasir)

> "There's no problem, as long as don't overdo it" (Yuli)

Nasir and Yuli's perspectives offer valuable insights into the psychological dynamics at play in these environments. Nasir's resigned question, *"Why should you be surprised?"* encapsulates

a resigned acceptance of the status quo. In his view, the prevalence of fraudulent behaviour is so ingrained within the fabric of the community or organisation that it has become an accepted norm. Then, Yuli's assertion also reflects a pragmatic attitude towards fraud. Here, the emphasis is not on the moral implications of the behaviour itself, but rather on the practical considerations of its consequences. Yuli suggests that as long as fraudulent actions remain within certain bounds or thresholds, they are deemed acceptable or excusable. This line of thinking underscores the dangerous slippery slope that individuals can find themselves on when moral boundaries become malleable in the pursuit of group cohesion or personal gain.

4.2 Definition

We found that *'attitudes towards legal authorities'* play a crucial role in shaping individual perceptions of what is permissible or impermissible, particularly regarding acts like fraud (Wang et al., 2019; Zhang et al., 2020). The following statements (Putra, Dewi, and Linda) indicate these attitudes are deeply intertwined with perceptions of justice, fairness, and the efficacy of the legal system as a whole. When attitudes towards legal authorities are characterised by scepticism, mistrust, or perceived ineffectiveness, the perceived permissibility of fraud may increase.

> "Honestly, I did not have much faith in them (legal authorities). It definitely blurred the lines. When you see those who are supposed to uphold justice bending the rules themselves, it kind of makes you think, Why not?" (Putra).

> "If the system was not perceived as just, then people might feel justified in taking matters into their own hands" (Dewi).

> "It seems like they were more concerned with protecting their own interests than actually serving the people" (Linda).

Furthermore, the tension between *'normative beliefs'* and legal standards gives rise to ethical dilemmas and challenges in navigating social dynamics. According to Roman and Miller, (2014), social circles often develop their own sets of norms and values that may diverge from legal standards. These norms influence individuals' perceptions of what is acceptable behaviour within their peer groups, sometimes leading to actions that contradict legal statutes (Fleming et al., 2022). These points are supported in the statements of Dewi.

> "It was a constant tug-of-war, isn't it? What was considered right or wrong by society is not always in line with the law" (Dewi).

Additionally, Ade compared certain wrong acts to those of other leaders. He employed beneficial comparisons to downplay the severity or significance of the original wrongdoing. Similarly, Munir compared his own actions to those of his predecessors, suggesting that he was simply following the example set by others in his position.

> "For me, I observed leaders (in general). It made me feel like what they were doing was not all that bad (Ade).

> "Making everything justifiable. I mean, if others before me did it and faced no consequences, why should I be held to a different standard" (Munir).

The above quotes indicate that their justification allows them to believe that their behaviours are reasonable and defensible in their specific situation. Such quotes also highlight obligation-based reasoning to the patterns of norms and values entrenched within their departments. As such, *'perceptions of consequences'* and excusability[6] of fraudulent behaviour are interlined each other. In this sense, one of informants added that:

> "It is almost like there was an unspoken trigger. I have seen many others (in general) bend the rules plenty of times without facing any consequences" (Slamet).

Furthermore, the link between early social experiences and the development of *self-identity*, particularly in relation to perceiving fraud as excusable, becomes apparent through Nurahmi's statement. She naturally look to others as reference points for evaluating their own attitudes, behaviours, and beliefs.

> "(In a governmental environment) they observed each other, and they used other people's behaviour as a benchmark for evaluating our own attitudes, behaviours, and beliefs" (Nurahmi).

Then Agus added:

> "Until now, I have never heard anyone within any organisations label as fraudsters" (Agus)

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[6] Excusability refers to the extent to which an action – typically a wrong or unethical action – can be justified or forgiven based on certain circumstances or intentions, even if it violates norms, rules, or laws.

Agus's statement offers a poignant glimpse into the nuanced dynamics surrounding the *'labelling'* and perception of fraudulent behaviour within certain organisational contexts. It suggests that individuals become desensitised to unethical behaviour. Despite engaging in behaviour that constitutes fraud, individuals within the organisation do not identify themselves as 'fraudsters'. It is due to a variety of cognitive biases, such as self-serving bias or rationalisation (Martin et al., 2014). Agus's statement draws attention to the role of linguistic framing or euphemistic language in shaping perceptions of behaviour. The absence of explicit labelling as fraudsters reflects a deliberate choice of language aimed at downplaying or concealing the ethical transgressions occurring within the company.

4.1.3 Differential reinforcement

The following quote confirms that frauds are more likely repeated through *'positive reinforcements'* (Hauser et al., 2021). For example, Yuli's sense of *pride* and *honour* is deeply intertwined with her position in government. For her, it is more than just a job or a means of earning a living. It is a symbol of achievement, recognition, and status in society.

> "In my experience, individuals, in positions of power often developed a strong attachment to their roles, viewing them as not just jobs but as symbols of success and recognition in society. I was for all Indonesian I thought" (Yuli).

Uniquely, the effect of social punishment is not much effective to prevent individuals to engage in fraudulent behaviours (Wang et al., 2019). For example, Slamet illustrated the effect of *'perceived social sanctions'* on the persistent fraudulent or unethical behaviours. In the next quotes, Slamet started to perceive deviance as less morally objectionable by pointing to others who engage in similar practices.

> "I was confused by myself. [. . .] For instance, during business travels, we adopted a pre-funding approach for all lodging expenses, despite being under a reimbursement system. This practice, as suggested by friends, streamlines our reporting procedures" (Slamet).

He also added (about a pre-funding approach for lodging expenses during business travels):

> "Indeed, we could not afford to overlook overstated expenses. I thought it appeared to be a prevalent concern. We did not feel comfortable asking you were reporting

false amounts. It was impossible, right?. [. . .] ideally, it is grounded in reasonable principles that prioritise accuracy" (Slamet).

In this second statement, Slamet acknowledged the possibility of fraud, yet he and his colleagues within the organisation tolerated it as long as it remained within acceptable boundaries. Another important point from such a quote is that such practices are to maintain harmony and avoid conflict among individuals (Free and Murphy, 2015). Consequently, the line between acceptable and unacceptable conduct blurred, enabling unethical behaviour to persist unchecked.

Furthermore, *'personal reliefs'* (e.g. emotional stressors) can cloud one's judgment and lead them to engage in fraudulent behaviour as a means of alleviating their immediate burdens (Yang and Chen, 2023). Reza knew what he had to do, but the weight of the decision pressed heavily on his mind. From his point, overstated expenses is like a double-edged sword. He knew that by refusing to play along with the game, he risked alienating himself from his colleagues, potentially even putting his job in jeopardy. It was a risk he was not sure he was willing to take. Similarly, Slamet has surrendered and grown weary of his role as a government employee. Consequently, he has come to accept the norms within his organisation.

> "I am afraid of the consequence to my career if I did not mark up the expenses" (Reza).

> "It (fraud) was the problem for a state civil servant. People behaved and worked differently. It became another problem. I did know, just carrying on with all this, the most important thing was not just for our interests, to be safe" (Slamet).

Additionally, we found that the presence of *'social liberation'* could also blur the line between what is perceived as acceptable and unacceptable behaviour. For instance, in the case of budgeting proposals, Munir presented a compelling argument, highlighting a pervasive issue that extends beyond the confines of their department and even transcends provincial boundaries. Dewi's argument also indicates that social liberation can lower perceived barriers to engaging in dishonest practices. Taken together, they (Munir and Dewi) may feel less inhibited about engaging in fraudulent activities themselves. It is due to a sense of collective acceptance or even tacit approval. So, the fear of being ostracised or marginalised within the group serves as a powerful motivator for individuals to engage in fraudulent behaviour (Free, 2015; Kuang and Lee, 2017), even if they might have ethical reservations initially.

"I am aware of many people outside our department and other provinces who were marking up all figures in the budgeting proposal as part of their system" (Munir).

"I'm not a hypocrite. Yes, it is true. All of our governments, central and regional, are the same" (Dewi).

4.1.4 Imitation

According to the following quotes, one way in which significant others affect individuals' decision-making in committing collaborative fraud is through the process of *'social validation'*. For instance, when individuals witness their peers or colleagues engaging in fraudulent activities without facing legal or social consequences, it creates a perception that such behaviour is acceptable.

> "It's the idea that if everyone else is doing it and not getting caught, it must be an acceptable risk" (Agus).

Furthermore, Munir illustrated individuals look up to the authority figures as *'role models'* or sources of guidance.

> In general, yes, many people learned from others for categorising expenses and delaying certain expenditures to free up money for more immediate needs". (Munir)

So, by conforming to the norms and expectations set by leaders, followers believe that they are aligning themselves with the values and goals of the group, thereby strengthening their social bonds and sense of belonging. This *'internalisation'* is supported by Putra's quote below.

> "It was all about working together, teamwork. Like it or not, they had to work for it".

Followers imitate their leader's fraudulent behaviours as a form of *instrumental learning*. If followers perceive that their leader's fraudulent actions have led to tangible rewards or benefits, such as financial gain or enhanced status, they may be motivated to replicate these behaviours in hopes of achieving similar outcomes for themselves. This process of observational learning is reinforced when followers witness firsthand the perceived success or impunity enjoyed by their leader, further legitimising the fraudulent conduct in their eyes (Murphy and Dacin, 2011). These points are supported by the following quote.

> "They were often looking for projects as many as they could, so they could get money out. About report, they thought later. It was easy to deal with. Yes, it is manageable" (Arya).

5. Discussion

5.1 Discussion of research results

This study is to observe the catalysts of co-offending behaviours by employing the social learning theory of criminal behaviour (Akers, 2009) as its conceptual foundation. Our findings indicate that the social learning variables of 'differential association, definition, differential reinforcement, and imitation' are interconnected (see Figure 1). Under the work of Van Akkeren and Buckby (2017), there are two enablers/triggers, such as individual enablers, social enablers, to explain fraudulent occurrences. Our findings propose different (co-offending) fraud model. Within our study, individual enablers are viewed as different reinforcements and social enablers are viewed as different associations.
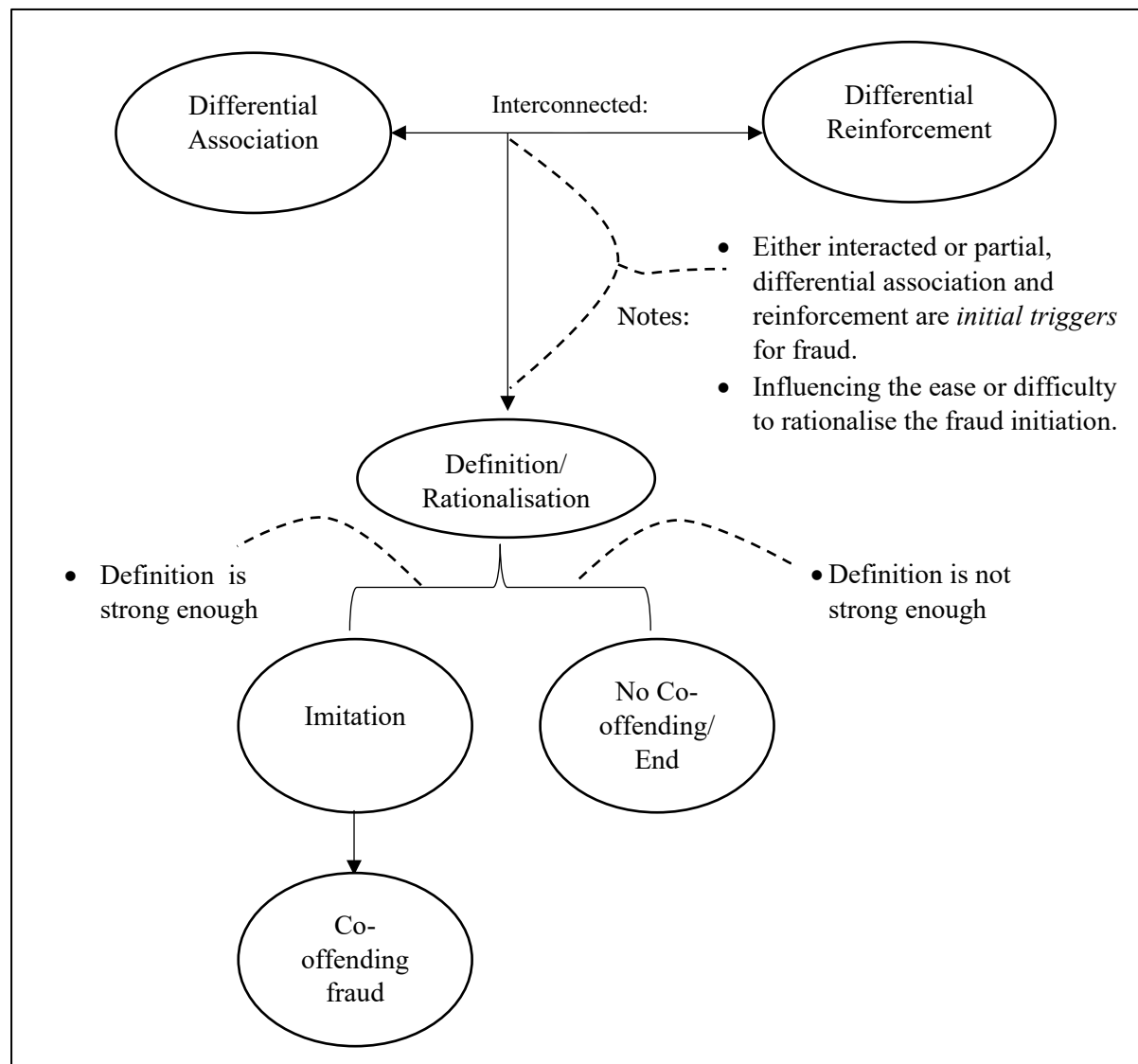

Figure 1: Co-offending fraud model
Source: Created by authors

In the context of fraudulent co-offending behaviours, different reinforcements and different associations are less likely to predict such behaviours on their own, even though these two enablers influence each other. The results show that those enablers are just a set of initial triggers that affects whether or not the acts will be committed in a situation that presents cognitive dissonance. As suggested, it is not clear how one's attitudes toward fraud, by themselves, could provide the impetus or motivation to break the law. The predictive power of individual or social enablers cannot be separated from definition/rationalisation.

The co-offending behaviours are more likely to occur and recur in situations the same as or similar to those in which the rationalisations have already been learned and applied. However, the extent to which one adheres to or rejects the rationalisations favourable to fraud is not merely affected by the rewarding or punishing consequences that follow the act. Instead, it is heavily affected by one's moral and cognitive readiness to imitate observed models in their presence. Therefore, although the probability of a co-offending act increases in the presence of favourable opportunity, such act does not mean that it does occur, particularly in the absence of any thought given to whether the acts are right or wrong.

5.2 Theoretical implications

Theoretically, our perspective is instructive for framing the occurrence of co-offending behaviours in fraud. Within the current study, all social learning variables are embedded within a foundational socio-behavioural process characterised by reciprocal and feedback dynamics. This encompasses not only the inherent feedback mechanism intrinsic to differential reinforcement but also the influences of selection and socialisation within peer networks, alongside the reciprocal effects between behaviour and societal norms. In particular, the study enriches the concept of collusive fraud (Free and Murphy, 2015), by demonstrating how repeated, long-term interactions – especially those rooted in loyalty networks and professional solidarity – facilitate the development of trust among co-offenders. These associations form the social base for knowledge-sharing and behavioural imitation, which in turn reinforce fraud-related norms. These results theoretically make it clear that fraud in the organisation does not occur randomly. We broaden the philosophical aspect of a theory of differential rationalisation (Shepherd and Button, 2019). As illustrated above, there is a significant recurrence of fraud incidents, often involving the same perpetrators repeatedly targeting the same victims. Clearly, the two groups are frequently linked. However, within fraud context, the complete randomness

of targets and victims is never plausible. We posit that neither an individual's inherent characteristics nor their milieu intrinsically foster criminal propensities; instead, they engender normative adherence. The stronger the social bonds, the less freedom an individual has to commit fraudulent offences.

Even though Sutherland's differential association theory posits that individuals learn criminal behaviour through social interactions and modelling (Sutherland, 1947), he oversimplifies the complex dynamics at play and may not adequately account for certain realities of criminal behaviour. For instance, Sutherland disregarded the investigation into the learning processes or mechanisms and instead concentrated on defining attitudes and rationalisations that either support or discourage criminal behaviour. Of course, the differential association theory undoubtedly plays a role (Sutherland, 1947). However, it may not fully explain why individuals choose to co-offend or how group dynamics influence criminal decision-making. Factors such as individual motivations, situational pressures, and group cohesion can significantly shape co-offending behaviours, often beyond the scope of social learning alone. Our research identified that such factors significantly influence individuals' readiness to rationalise their criminal decision-making processes. As suggested in this study, people often justified their behaviour by referencing common practices, downplaying wrongdoing, or aligning with collective values that prioritised performance over compliance. This highlights how internalised moral codes are shaped by the normative beliefs within one's immediate social environment, rather than by formal ethical standards alone. These justifications reflect a shift from rule-based moral reasoning to a context-dependent, socially negotiated understanding of right and wrong. Essentially, these results are not discussed in the Sutherland's theory, as it concentrates on the individual cognitive justifications within dyadic relationships.

Unlike typical criminal partnerships that may dissolve quickly due to the high-risk nature of their activities or conflicts over profits (García-Ponce et al., 2023; Meneghini and Calderoni, 2022), fraud schemes often require sustained cooperation, trust, and detailed planning. As suggested in this study, it cannot be achieved without a foundation of emotional bonds and mutual dependence among participants. Similarly, as shown in McNeeley's (2021) study on co-offending among white-collar offenders, familial ties, long-standing friendships, and even romantic relationships work for as powerful enablers of this cooperation. Our study highlights that these relationships act as trust-building mechanisms, reducing perceived risks and increasing group cohesion, especially in high-stakes organisational environments where detection could result in career loss, reputational damage, or criminal penalties. Our study

supports a McNeeley's (2021) study by showing that fraud involving co-offenders often takes place within tight-knit social networks, such as within specific departments or units in the organisation, where people have worked together for years, sometimes decades. Participants described how such long-term working relationships formed the basis for informal "pacts" or understandings, where mutual protection and unspoken agreements guided their behaviour. These bonds go beyond professional cooperation; they often extend into social and emotional territory, where loyalty to one another is deeply personal. For instance, several informants in our study described how the comfort of being "among trusted colleagues" made it easier to engage in or tolerate fraudulent actions. So, the threat of betrayal was perceived to be lower not because of institutional safeguards but because of the personal histories shared between the individuals.

This social-psychological lens also contributes to the development of network analysis of collaborative fraud. As has been mentioned in the literature review section, the fraud triangle theory does not show two and more individuals linked together in the joint commission of a single organisational offence. The findings of this study provide empirical support for the theory's core dimensions – differential association, definitions, differential reinforcement, and imitation – and demonstrates how these processes unfold not only in dyadic relationships, as commonly studied in organisational literature (Ajide and Olayiwola, 2021), but also within organisational hierarchies and professional networks. Participants described how fraud was rarely an individual act, but rather emerged through networks of trusted relationships, where colluders had often worked together for extended periods. These networks were not merely professional – they were emotionally anchored through friendships, loyalty, and even dependency, especially in the case of younger or less powerful employees who felt obligated to follow the lead of senior figures. These findings support concepts such as ethical fading, bounded ethicality, and normalisation of unethical behaviour, expanding their application into the realm of group-based fraud (Hasan et al., 2023; Kon et al., 2024). Our informants illustrated that unlike more senior staff who may have job protection, greater influence, or the confidence to resist group pressure, younger employees often lack these safeguards. Their position within the organisational hierarchy makes them susceptible to coercion, whether direct or indirect. This finding also aligns with broader literature in organisational behaviour and behavioural ethics (Umphress et al., 2010; Van Akkeren and Buckby, 2017), which highlights how power imbalances and job insecurity lead to ethical compromises. Obviously, it suggests that in

addition to individual moral character, structural and contextual factors – such as job status, age, and organisational culture – play a significant role in shaping ethical decision-making.

Then, this study shows that the relations among criminally active individuals can be either reciprocal or one-way. This finding challenges the oversimplified assumption that co-offending relationships are always partnerships between equals (Piest and Schreck, 2021). Instead, it suggests that power dynamics, emotional dependency, and structural positions within the organisation significantly influence how individuals become involved in fraudulent activities – and how they experience that involvement. In reciprocal relationships, this study suggest that both parties actively engage in planning, executing, and concealing the fraudulent act, often reinforcing each other's justifications and strategies. These partnerships are typically built on mutual trust, shared goals, and emotional alignment, such as friendships or long-term professional bonds. In this context, fraud becomes a collaborative project – marked by loyalty, coordination, and a division of roles that supports efficiency and secrecy. As such this partnership fosters a sense of moral buffering, where co-offenders feel supported in their actions and are less likely to question the ethics of their behaviour. Conversely, one-way relationships are characterised by imbalance – either in power, seniority, or social capital – where one party initiates or orchestrates the fraud while the other complies, often reluctantly. As the study shows, some young perpetrators felt compelled to participate in fraud because of pressure from superiors or the belief that resistance would jeopardise their careers. This reflects a form of coercive complicity, where participation is driven by structural vulnerability rather than mutual benefit. Additionally, such associations vary in frequency, duration, priority and intensity. These distinct types of relationships illustrate the varied dynamics and complexities within criminal interactions, which are not found in the fraud triangle theory (Cressey, 1953) and other fraud models (see Raval's (2018) conceptual work). Importantly, this complexity is often overlooked in organisational studies (Mishra et al., 2021; Liu et al., 2021) that assume co-offending arises from symmetrical relationships or joint motivation. So, the study deepens our understanding of the mechanisms of involvement, silence, and complicity.

Therefore, we doubt prior studies asserting that familial and financial dilemmas exhibit a positive correlation with fraudulent activities (Kon et al., 2024; Knisley and Lin, 2022). Specifically, we repudiate the purported positive nexus between diminished self-regulation or self-control and incidences of fraud or white-collar crimes (Craig and Piquero, 2016). This means that perpetrators of collaborative fraud demonstrate a strong sense of volitional control over their actions, as evidenced by their consistent efforts to construct clear and convincing

ethical justifications for their behaviour. Rather than acting impulsively or without forethought, participants appeared to engage in carefully reasoned decision-making, often weighing social expectations, perceived benefits, and normative beliefs within their organisational context. For instance, several informants described how they rationalised fraud by referencing group norms or by comparing their actions to those of prior leaders, indicating a deliberate process of internal moral negotiation. This level of intentionality and self-reflection challenges the assumption of impulsivity or diminished self-control commonly associated with white-collar crime, as proposed by traditional self-control theories (Craig and Piquero, 2016). Instead, it aligns with and extends Schoepfer et al.'s (2014) critique, highlighting that fraudulent behaviour in this context is not a result of spontaneous decisions or lack of restraint, but is embedded within strategic, socially reinforced reasoning that legitimises deviance under the guise of group cohesion or organisational necessity.

5.3 Practical implications

This study have several practical implications: *Firstly*, interventions aimed at reducing co-offending should focus not only on altering individual and social enablers but also on addressing the rationalisations that individuals use to justify their actions. Specifically, organisations should prioritise disrupting the social learning mechanisms – such as frequent interactions, imitation, and shared rationalisations – that enable fraud to be collectively learned and reinforced. Actionable recommendations include fostering an ethical culture that discourages rationalisation of unethical acts, providing training that strengthens moral reasoning and critical thinking, and implementing team-level monitoring to detect abnormal patterns of behaviour within tightly knit groups.

Secondly, organisations and law enforcement agencies should adopt a more nuanced and proactive approach to preventing co-offending behaviours by addressing the underlying social and cognitive dynamics that enable group-based fraud. In this point, organisations must move beyond traditional fraud models and integrate behavioural and relational assessments into their risk management systems. This includes identifying tightly bonded teams with high emotional dependence, long-standing interactions, and shared rationalisations. Regular rotation of roles and responsibilities, especially in high-risk departments, can help disrupt the development of collusive networks.

Thirdly, to prevent co-offending behaviours, law enforcement and regulators should implement proactive mechanisms that target the social and psychological roots of collaborative fraud. This includes developing early-warning systems through regular mapping of organisational social networks to detect high-risk clusters formed by loyalty-based ties and long-term interactions. Special attention should be given to departments with rigid hierarchies where manipulation and coercion are more likely to occur. Preventive audits should include assessments of team dynamics, role stability, and exposure to unethical leadership. Furthermore, regulators should mandate that organisations provide ongoing psychological support and ethics training that equips employees – particularly lower-ranking staff – with the tools to recognise, question, and resist unethical group pressures. So, by embedding these preventive measures into regulatory standards and organisational policies, law enforcement can reduce the formation and entrenchment of co-offending networks before they evolve into systemic fraud.

Fourthly, we answer prior studies (Kassem, 2022; Kleinman et al., 2020), showing current auditing standards (SAS No. 99) provide little guidance on identifying, understanding of fraudsters' rationalisations. Our research offers a comprehensive overview of fraudsters' rationalisations, particularly in the context of co-offending behaviours, emphasising the importance of auditors paying close attention to these rationalisations. Instead of relying solely on an audit checklist, it is crucial for auditors and other fraud fighters to understand the underlying connection between a fraudster's mind-set and the fraudulent act itself. Additionally, the findings in the study extend this by showing that co-offending is often built on emotional bonds, shared justifications, and organisational culture, rather than simply individual motives. The study also identifies different types of co-offending relationships (reciprocal and one-way). This nuance is absent in SAS No. 99, and incorporating it could significantly strengthen auditors' ability to assess relational risk factors, identify possible patterns of influence or coercion, and more effectively detect group-based fraud.

This result also enhances one of COSO's components – risk assessment. Specifically, Principle 8 of COSO's framework instructs organisation to explicitly consider and assess fraud risk potential (COSO, 2013, p.7). The COSO framework, although broader in scope and highly influential in shaping internal control systems, tends to treat fraud as an individual act, largely influenced by weak controls or poor ethical tone at the top. It does not offer specific guidance on recognising fraud rationalisations or relational dynamics involved in collaborative fraud. The findings from the study fill this gap by suggesting how fraud rationalisations are socially constructed. Additionally, the study shows how power hierarchies and emotional dependencies

influence decision-making, especially among young or lower-ranking employees, who may be coerced or feel obligated to comply. These insights suggest that COSO would benefit from integrating behavioural and social elements into its model, recognising that even strong control systems can be overridden not just by a single unethical individual, but by a network of colluding actors operating under shared justifications.

Fifthly, this study shows that fraud often happens not just because of one person's decision, but because of strong relationships and group pressure within the workplace. People may join in fraud because they trust their co-workers, want to protect their jobs, or feel they have no choice. For auditors, this means they need to look beyond the numbers. It is important to understand how people interact, especially in teams where staff have worked together for a long time. Auditors should ask questions about how decisions are made, what kind of justifications people use when bending rules, and whether there are close social groups that might hide wrongdoing. Tools like interviews, anonymous surveys, or observing team behaviour can help find risks that are not visible in financial reports. For organisations, these findings suggest the need for stronger protection for employees – especially young or lower-ranked staff – who may feel forced to follow unethical orders. There should be safe and anonymous ways for them to report problems without fear of losing their jobs. Training programs should also teach employees and managers how to spot unhealthy group behaviour or justifications like "we've always done it this way." It is also important to update audit guidelines so they include not just technical checks but also checks on team dynamics and ethical culture. By focusing on relationships and workplace culture, both auditors and policymakers can do more to prevent fraud before it starts.

6. Conclusion

Drawing from Akers' Social Learning Theory as the conceptual foundation, this study sheds light on how co-offending in fraud is not merely the outcome of isolated individual decisions, but rather a complex process influenced by interpersonal interactions, shared definitions, reinforcement mechanisms, and imitation. These results support our theoretical framework demonstrating that individuals learn and justify fraudulent behaviours through repeated associations (or long-standing relationships) with deviant peers, internalised rationalisations, and the observation of others' actions and outcomes. Fraud in this context is reinforced not only through tangible rewards but also through emotional bonds, social validation, and perceived expectations within the organisation. As such, in this sense, differential association

– frequent interactions and deep social connections – creates a space where trust and coordination among colluders can thrive. Then we found that imitation played a strong role – participants often replicated the behaviours of leaders or colleagues who appeared to benefit from unethical practices without consequence. Therefore, it can be argued that fraudulent behaviour becomes a learned response to group norms, rather than a spontaneous or individualistic act.

7. Limitations and suggestions for further studies

This research cannot be generalised to work environments where fraudulent behaviours are un-normalised. It is because the underlying ontology, in terms of antecedence and consequent factors, is markedly different for fraud occurring in this context compared to fraudulent behaviour that is normalised within an organisation. As such, our study is to complement and broaden the prior fraud models.

One of the concerns that is interesting to explore in further studies is the underlying motives of people's willingness to re-offend, particularly in the context of fraud. Our study suggests a significant trend in the repeatedness of co-offending. The likelihood of individuals re-engaging in fraudulent activities with the same partners is notably higher than the probability of them switching to new co-offenders. Our and prior studies observed the cause of *initial* fraud perpetrated by one or two offenders. The scarcity of literature addressing re-offending in fraud presents a critical gap in understanding the comprehensive landscape of fraudulent behaviour. By examining this specific aspect, future research can contribute significantly to the existing body of knowledge, enriching the references and literature on fraudulent occurrences. Particularly, this focus not only aids in identifying the psychological and social aspects that drive repeat offenses but also offers valuable insights for developing more effective prevention and intervention strategies.

Furthermore, the sample's context-specific nature may obscure the variability in how co-offending in fraud emerges across different organisational structures or cultural settings. For instance, private sector organisations, multinational corporations, or NGOs might exhibit different pressures, oversight mechanisms, or rationalisation patterns, which were not explored in this study. The absence of voices from employees who may actively resist or report fraud, or from those operating in environments with robust anti-fraud systems, further narrows the

lens through which fraudulent behaviour is analysed. As such, even though the study offers rich insights into the social learning dynamics of fraud within a specific setting, the findings cannot be confidently applied to broader populations or used as a universal framework without additional empirical evidence.

To address these limitations, future research should consider expanding the sample in both size and diversity. Including participants from multiple sectors – such as private enterprises, civil society organisations, and multinational firms – would allow for comparative insights that test the robustness of the study's findings across contexts. Additionally, incorporating individuals from different levels of seniority, as well as those with varying degrees of exposure to fraudulent practices, could enrich the analysis of how co-offending develops and varies within and across organisational hierarchies. We believe that cross-cultural studies could also illuminate the extent to which cultural norms, power dynamics, and regulatory frameworks shape fraud rationalisation and participation. These broader and more heterogeneous samples would help strengthen the external validity of the research and contribute to the development of more universally applicable models for understanding co-offending in fraud.

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