

## **Knowing the accounting fraudster: The influence of individual anomie and displacement of responsibility and moral justification as mediating variables**

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## **Knowing the accounting fraudster: The influence of individual anomie and displacement of responsibility and moral justification as mediating variables**

**Abstract:** Accounting fraud is a serious problem that causes losses of billions of dollars for companies worldwide. In recent years, studies analysing the psychological aspects of individuals who commit accounting fraud have gained importance. This paper aims to analyse how three psychological aspects of the individual: (1) anomie, (2) displacement of responsibility, and (3) moral justification, influence the intention to commit accounting fraud. Furthermore, we study whether the two aforementioned moral disengagement mechanisms, displacement of responsibility and moral justification, are mediating variables between anomie and intention to commit fraud. Structural equations based on covariance have been applied for the statistical treatment. Results show that more anomic individuals have a greater intention to commit accounting fraud and that the displacement of responsibility and moral justification act as mediating variables between anomie and the intention to commit accounting fraud. For this incipient line of research into the psychological aspects of fraudsters, this work is the first to evaluate both individual anomie and the mediating role of displacement of responsibility and moral justification. All of this can undoubtedly help to understand accounting fraud and lay the foundations for alleviating it.

**Keywords:** Anomie, displacement of responsibility, moral justification, accounting fraud

## **1. Introduction**

According to International Auditing Standard 240, accounting fraud is a form of fraud carried out by the managers of a company, employees or third parties, which involves using deception to obtain an unfair or illegal advantage. What characterises fraud and distinguishes it from error is the intentionality of the act. Thus, this type of fraud includes providing fraudulent financial information and misappropriating assets (NIA 240, 2013). There is no doubt that accounting fraud represents a serious problem for users of accounting information, including shareholders, creditors, senior managers and society in general (Dyck et al., 2010). According to Kim et al. (2012), such fraud is of great importance, since it represents 22% of economic crimes that occur worldwide, thus generating considerable costs for both companies and society (Helge et al., 2015). Furthermore, according to the Global Economic Crime and Fraud Survey (PricewaterhouseCoopers, 2020, p. 2), accounting fraud has seen its incidence increase by 28% in the last year despite measures to combat it.

Understanding and exploring the motives that lead individuals to engage in unethical behaviour in organisations, such as accounting fraud, has led researchers to turn to the fields of psychology and sociology (e.g., Johnson et al., 2013; Kuempel et al., 2016; Ramamoorti & Olsen, 2007), although the study of the psychological aspects of fraudsters is an underdeveloped field (Blenkhorn Rodriguez, 2015). Despite the existence of studies on specific psychological aspects that help detect fraudsters, such as Machiavellianism, the need for power, shared values or lack of empathy (e.g., Fisher, 2015; Joffe-Walt & Spiegel, 2012; Ramamoorti, 2008), psychological anomie, an aspect that has been related to deviant behaviour (Appelbaum et al. 2007; Bernburg, 2019; Mansfield, 2004) has not had been investigated extensively in the context of fraud. Psychological anomie is a state of mind in which the individual is not integrated with the social system, self-regulating

his behaviour and acting without any consideration for others, being himself the only important thing in the present moment (Srole, 1956). Psychological anomie makes it difficult for the individual to relate to his social environment, and although he has the ability to act following social interests, he becomes concerned about himself, and does not consider the consequences of his behaviour for others (Konty, 2005; Srole, 1956). The main aim of this paper is therefore to investigate how psychological anomie is related to the intention to commit fraud.

Further, in order to understand why individuals engage in deviant behaviours, we also explore how displacement of responsibility and moral justification mediate the relationship between anomie and the intention to commit accounting fraud, relying on Bandura's (1986, 1999) moral disengagement theory. According to this theory, individuals rationalise their fraudulent acts to cope with the guilt that arises when they perform them (Cory & Treviño, 2017). Bandura et al. (1996) propose a number of moral disengagement mechanisms, but two of them are the most frequently used in business literature (Barsky, 2011). These are the so-called "displacement of responsibility", which in the scope of this paper would involve attributing the blame for having defrauded to being pressured or following someone else's orders and the "moral justification" mechanism, which would involve justifying a wrongful act, such as accounting fraud, as necessary for the firm to survive. Authors such as Egan et al. (2015), Free (2015), Murphy and Dacin (2011) and Schuchter and Levi (2015) consider such rationalisation fundamental to morally confront fraudulent behaviours, having already been applied in the business world related to decision-making and unethical behaviour in the workplace (e.g., Barsky, 2011; Bonner et al., 2016, Christian & Ellis, 2014; Dang et al., 2017; Hystad et al., 2014; Moore, 2008). Interestingly, Haeferle and Stiegeler (2016) argue that the commission of white-collar crime often follows the same pattern as the fraud triangle

(Wells, 1997), i.e. pressure, opportunity and subjective justification. This subjective justification, which allows for the rationalisation of bad behaviour, is similar to the disengagement mechanisms described above.

The study draws on a survey that was conducted on a sample of 178 students, 74 males and 104 females. The data obtained were analysed with structural equation modelling (CB-SEM). Our results suggest that psychological anomie influences the intention to commit accounting fraud. Furthermore, our paper extends the contributions of Alnuaimi et al. (2010), Barsky (2011), Hystad et al. (2014) and Newman et al. (2019), who have studied the importance of the mediating role of moral disengagement mechanisms in other contexts, by enhancing our understanding of the cause-effect relationship between anomie and the intention to commit fraud. Specifically, we find that both displacement of responsibility and moral justification are significant mediators of the main relationship.

The main contribution of this study consists of shedding light on the psychological mechanisms that make people more likely to commit accounting fraud. Understanding both the accounting/financial and the psychological side of this crime could be crucial in combatting it and mitigating its enormous costs (Blenkhorn Rodriguez, 2015).

From a practical point of view, our findings can inform companies to better understand the psychological mechanisms that lead to the intention to commit accounting fraud and, consequently, to its prevention. Thus, designing an adequate internal control system and clearly communicating the rules of ethical behaviour with messages that strongly condemn this type of fraud can help employees to act honestly in their work, which is in line with the findings of authors such as Mangala and Kumari (2015), Seetharaman et al. (2004) and Smith (2015).

The remainder of this paper proceeds in four additional sections. In the next section, the theoretical framework and hypotheses of the study are presented. Section three details the methodology followed, the selected sample, measurements and data analysis. Section four shows the discussion of the data, and section five contains the conclusions, limitations of the study and suggestions for future research.

## 2. **Theoretical framework and hypothesis**

### **2.1. *Anomie***

Anomie is a term studied in sociology as a measure of the relationship of the individual with society (Tsahuridu, 2011) and is considered an important element to explain crime and social deviance in general (Orru, 1987). The study of anomie is fundamentally based on two theories. One is a sociological theory led by Merton (1958), in which anomie is the product of a mismatch between the goals of individuals and the means society provides to achieve them, which can lead to an increase in deviant behaviour. The other focuses on the psychological characteristics of anomie at the individual level.

This individual or psychological conception of anomie was initially studied by McIver (1950), who referred to it as an individual state of mind where the individual does not internalise the norms of society, feels that his moral support is weakened and has no sense of group. Srole (1956) further developed his construct for anomie (Zoghbi-Manrique-de-Lara & Sánchez-Medina, 2015), indicating that anomic individuals feel that community leaders do not take into account their needs, that social order is unpredictable, that they and people like them are regressing from the goals they have achieved, that they have no support from anyone and that life itself is meaningless. Srole's construct (1956)

measures the degree of social detachment, the absence of values and the cynicism (or lack of faith in human relationships) of individuals.

Later, Deflem (1989) defined anomie as a state of mind that is related to the breakdown of an individual's sense of attachment to society and to others. According to Tsahuridu (2006), anomie assumes that there are no values to which individuals can cling in order to make decisions in life, concluding that whether sociological or psychological, anomie is undesirable.

As used in this paper, psychological anomie is a state of mind in which the individual is not integrated with the social system, self-regulating his behaviour and acting without any consideration for others, being himself the only important thing in the present moment (Srole, 1956).

Previous research has found support for the relationship between psychological anomie and deviant behaviour in the workplace, including accounting fraud. In this sense, Caruana et al. (2000, 2001) found a relationship between anomie and fraudulent behaviour; Riahi-Belkaoui and Picur (2000) presented a general framework, in which anomie is one of the paths that leads to fraudulent financial information, audit failures and corporate fraud; Van Akkeren and Buckby (2017) used anomie to explain the motivations of accountants and directors involved in accounting fraud; Andon et al. (2015) pointed out how the disjunction between ends and legitimate means to achieve them leads accounting employees to situations of anomie. In this sense, companies with unrealistic demands for productivity or unattainable budgets can generate anomie in the individual that can lead to unethical behaviour, such as accounting fraud (Donegan & Ganon, 2008).

Based on all the above, the first hypothesis of this work is formulated.

*H1: Employee anomie is positively associated with intention to commit accounting*

*fraud.*

## **2.2. Displacement of responsibility and moral justification**

The fields of psychology and sociology have been used in research on accounting fraud to explain the behaviour of individuals who engage in it (e.g., Johnson et al., 2013; Kuempel et al., 2016; Murphy & Dacin, 2011). One of the theoretical frameworks that has been applied to explain such behaviour is social cognitive theory (Bandura, 1996, 1999). The aforementioned theory offers a vision about human functioning indicating that through self-regulation processes individuals exercise control over their behaviour and thoughts (Hystad et al., 2014). What is interesting about this theory is that according to Bandura (1999), this self-regulation can be deactivated selectively and at will, with moral disconnection being the main mechanism to carry it out. This disconnection is a counterbalance to morality and ethics (Ashforth & Vikas, 2003), and furthermore, it is related to unethical organisational behaviour (Barsky, 2011; Christian & Ellis, 2014; Moore et al., 2012).

Bandura et al. (1996) proposed eight mechanisms for moral disconnection: (1) displacement of responsibility, (2) moral justification, (3) euphemistic labelling, (4) advantageous comparison, (5) diffusion of responsibility, (6) distortion of consequences, (7) dehumanisation and (8) attribution of blame to the victim. In studies such as those by Gini et al. (2014, 2015) or Moore (2015), moral disconnection has been studied as a single construct. However, Bandura (2011) himself acknowledged that people who are morally disengaged do not necessarily have to use all mechanisms together to justify their immoral acts, finding works that only study some of their mechanisms individually (e.g., Alnuaimi et al., 2010; Barsky, 2011; Niven & Healy, 2016; Sánchez-Medina et al., 2017).



Given the limited research on the different mechanisms of moral disconnection (Aquino et al., 2007; Newman et al., 2019), this paper further explores this line, focusing on two of the mechanisms, displacement of responsibility and moral justification. The displacement of responsibility involves attributing responsibility for immoral actions to authority figures, such as a boss, a manager or a leader in the business world (e.g., Hinrichs et al., 2012). Moral justification, on the other hand, is used when the subject justifies an immoral behaviour as acceptable because it has a more important social purpose (e.g., to protect the company or his family) (e.g., Niven & Healy, 2016).

The choice of these mechanisms is due to the fact that, by their nature, they are potentially more likely to be used by individuals who commit accounting fraud in companies. Moreover, according to Barsky (2011), both are the most widely investigated and are linked to the establishment of organisational objectives. It should not be overlooked that the achievement of business objectives and the difficulty in achieving them are related to the fraudulent behaviour of employees in all areas of the company, including accounting (e.g., Barsky, 2008; 2008; Schweitzer et al., 2004; Trompeter et al., 2013). This is because they facilitate the rationalisation of these fraudulent acts (Clor-Proell et al., 2015). In the case of responsibility displacement, individuals rationalise their bad behaviour by shifting responsibility to those who assign them the objectives (Bandura, 1999; Beu & Buckley, 2004). For example, Buford Yates Jr., WorldCom's chief accounting officer, claimed that his fraudulent behaviour was due to his supervisors' orders to manipulate the accounting books to generate unreal profits and meet Wall Street expectations (Choo & Tan, 2007). Regarding the mechanism of moral justification, in addition to its relation to goal setting and unethical behaviours (e.g., Niven & Healy, 2016; Schweitzer et al., 2004), Bandura et al. (1996) also indicated that it is the most powerful predictor of harmful activities. In this sense, individuals generally do not engage

in immoral behaviours unless they can rationalise them by justifying that they have moral ends (Beu & Buckley, 2004). For example, those responsible for Enron justified their behaviour by alluding to the fact that they were creating a better and more deregulated energy market (Eichenwald, 2005).

### ***2.3. The relationship between anomie and displacement of responsibility and moral justification***

Wright (2015) has argued that there is a positive relationship between anomie and moral disconnection that explains fraudulent behaviour. In this line, Maciejewska (2016) and Zoghbi-Manrique-de-Lara and Sánchez-Medina (2015) indicated that the most anomic employees can transform their bad behaviour into being acceptable through rationalisation. This rationalisation, which involves a process of convincing oneself that ethical norms do not apply in a particular case, could be carried out by displacing responsibility to other people (e.g., Sánchez-Medina et al., 2017) or by morally justifying acts that are not ethical (e.g., Vitell et al., 2011).

### ***2.4. The displacement of responsibility and moral justification as mediator variables between anomie and the intention to commit accounting fraud***

Regarding to the above, it has been found that the displacement of responsibility influences the intention to behave ethically, for example, Barsky (2011) and Bersoff (2001) indicated that it is related to unethical behaviour in the workplace. The displacement of responsibility has been used by Mayhew and Murphy (2014) as a mediator between the instructions to modify the fraudulent financial information that the authority figures in the company give to the workers and the erroneous information that they finally elaborate.

The mechanism of moral justification has also been found to be related to fraudulent behaviour (Treviño et al., 2006). For example, Barsky (2011) studied it as a determinant of unethical behaviour in the workplace, and Niven and Healy (2016) concluded that employees with a high moral justification behaved in an unethical way when they were provided with performance objectives. Although the mediating role of moral disconnection related to ethically questionable accounting practices has been studied (e.g., Beaudoin et al., 2015), no studies have been found that focus on the mediating role of the mechanism of moral justification related to the intention to commit accounting fraud. However, it would not be strange to take it into consideration since anomic employees who face situations where they are pressured to achieve the financial objectives of the company at all costs could use this mechanism to rationalise their bad behaviour, claiming for example that they were contributing to the common good of the company. Moral justification was used by the WorldCom CFO for employees to commit accounting fraud, claiming that it was essential for the survival of the company (Mintchik & Riley, 2019).

Consequently, taking all the above into account, we have formulated the following hypotheses:

*H2: The displacement of responsibility mediates the relationship between anomie and the intention to commit accounting fraud such that there is positive relationship between anomie and displacement of responsibility and intention to commit accounting fraud.*

*H3: Moral justification mediates the relationship between anomie and the intention to commit accounting fraud such that there is positive relationship between anomie and moral justification and intention to commit accounting fraud.*

### **3. Methodology**

#### **3.1. Sample**

For the development of this study, final-year students completing university degrees in business administration and management and law at the University of Las Palmas de Gran Canaria were taken as the target population. The choice of this student profile came about because they receive training in accounting and legal aspects related to this study and thus there is a high probability of them taking on roles related to accounting in companies in the future, having the opportunity to present fraudulent financial information directly or indirectly (Friedrichs, 2002).

The participation of business students in studies on accounting fraud is not unusual (e.g., Andergassen, 2016; Clor-Proell et al., 2015; Conyon & He, 2016). On the one hand, their inclusion is justified in those studies where specific expertise of experienced accountants is not necessary, as is our case (e.g., Kleinman et al., 2003; Liyanarachchi & Milne, 2005; Mortensen et al., 2012). On the other hand, the ethical behaviour of students is not statistically different from that of managers (DuPont & Craig, 1996; Lysonski & Gaidis, 1991), and this behaviour is maintained when they are working professionally (Malone, 2006).

Finally, it should be noted that to test the hypotheses, a survey was conducted on a sample of 178 individuals (97 business students and 81 law students). The data obtained from the survey were analysed with structural equation modelling (CB-SEM). It should be noted that an analysis was performed to determine the moderating effect of the "Degree" variable (for business versus law students), and no significant effect was found (See Appendix 2).

### **3.2. Measurements**

A survey was used as the methodology for obtaining the necessary information and responding to the hypotheses raised in the present investigation. Having previously obtained the lecturers' permission, the survey was conducted by an interviewer who informed the students in advance of the purpose of the same, the average time for completion, the importance of answering truthfully, the voluntary nature of the survey and that the answers would be anonymised. One hundred and eighty-eight questionnaires were filled out, of which 10 were discarded because they were not fully complete.

With regard to the socio-demographic characteristics, Table 1 contains the sex and age of the respondents. The sample obtained was composed of 58.4% of women and 41.6% of men. In terms of age distribution, 79.2% were aged between 20 and 24, 17.4% were aged between 25 and 30 and 3.4% were over 30.

#### **Table 1. Demographic characteristics of sample**

The scales used in this work are indicated below and are provided in Appendix 1. A 7-point Likert scale was used for all questions, with anchor points from 1 – not at all in agreement to 7 – totally in agreement, except for those questions related to demographic information (sex and age).

#### *Anomie*

To measure anomic feelings Srole's original (1956) five-item scale for assessing psychological anomie was used. According to Zoghbi-Manrique-de-Lara and Guerra-Báez (2018) Srole's (1956) original construct is one of the most widely used measures of anomie in the social sciences (e.g., Alexander & Link, 2003; Sani et al., 2008; Zoghbi-Manrique-de-Lara, 2008), so it was decided to use it in this paper.

### *Intention to commit accounting fraud*

To assess the intention to commit accounting fraud, we used an adaptation of Ajzen's (1991) scale, which has been widely used in business literature (e.g., Buchan, 2005; Carpenter & Reimers, 2005; Kautonen et al., 2015). This three-item scale reflects the likelihood that an individual will perform a certain behaviour in the future.

### *Moral disengagement: Displacement of responsibility and moral justification*

For the measurement of moral disengagement, we used an adaptation of the original 32-item scale of Bandura et al. (1996), in which only the constructs used in this paper are reflected. These are moral justification (four items) and displacement of responsibility (five items), which were adapted to be relevant in the current context. The scale used by Bandura et al. (1996) has been applied and adapted in many papers examining moral disengagement (e.g., Chen et al., 2019; Stephens, 2018; Wu et al., 2021).

### **3.3. Data analysis**

Once the fieldwork was completed, the data obtained were coded and tabulated, using the statistical programme SPSS (Statistical Package for Social Sciences) for Windows, version 25. Furthermore, structural equations based on covariance have been used for data analysis. For this purpose, the R Lavaan package has been used (Rosseel, 2012).

In order to avoid the common method variance problems, which could call into question the interpretation of the results obtained, various empirical procedures have been used, such as the work of Martinez-Martinez et al. (2019) using Harman's one-factor test and the confirmatory factor-analytic approach to the Harman one-factor test.

Regarding Harman's single-factor test, the items related to the independent and dependent variables were included in the factor analysis, as suggested by Podsakoff and

Organ (1986). The factors found with an eigenvalue above 1 explain a variation between 15.925% (the lowest) and 23.445% (the highest), with the total of the explained variation being 77.099%. Since none of the factors individually explains more than 50%, the data can be accepted as valid without the existence of common method bias according to the test (Podsakoff & Organ, 1986). When performing the factor analysis using a single fixed factor, the variance explained by this factor is only 46%.

Subsequently, a more sophisticated evaluation was carried out, applying the confirmatory analytical factorial approach for the Harman single-factor test (Chang et al., 2010) included in Table 2. The one-factor model produced a Satorra-Bentler  $\chi^2$  (117) = 756.521;  $\chi^2 / df = 6.465$ ; CFI = 0.631; RMSEA = 0.175, compared to Satorra-Bentler  $\chi^2$  (111) = 174.018;  $\chi^2 / df = 1.569$ ; CFI = 0.964; RMSEA = 0.056. Thus, and following Martinez-Martinez et al. (2019), we found that a worse fit of the single-factor model suggests that the bias of the common method does not compromise the interpretation of the results.

### **Table 2. Confirmatory Analytical Factorial Approach**

To examine the causal relationship between the constructs, a two-stage procedure was followed, as recommended by Hair et al. (2010), Leong et al. (2013) and Wang et al. (2014). In the first stage, an exploratory factor analysis was carried out, which was useful to refine and determine the dimensional character of the scale (Cabrera-Suárez et al., 2014). In the second stage, a confirmatory factor analysis was performed to assess the validity of the constructs (Chan & Chong, 2012; So et al., 2014).

To assess the individual reliability of the indicators, the estimated load of each indicator in its construct was examined. For such validity to exist, the load must be high and the values statistically significant (Anderson & Gerbing, 1988). As in the initial

results, the general adjustment indicators for the proposed model included in Table 3 and Figure 1 obtained values lower than those recommended by the literature (Hair et al., 2010; Hu & Bentler, 2009) in an item corresponding to the anomie scale (individual reliability value 0.561). Although in the resulting model an item of the same scale had a value of 0.699, following Hair et al. (2017), we decided to keep both items in order not to compromise the content validity of the construct. Therefore, an acceptable convergent validity was thus established for the model, and the results of the confirmatory factor analysis indicated that the relationship between each item and its respective construct was statistically significant. In all cases, except for the above, the loads exceeded the value of 0.7 (all  $p$ -values  $\leq 0.001$ ), thus confirming the existence of convergent validity.

### **Table 3: Confirmatory analyses**

Additionally, it was also necessary to determine the convergent validity of the constructs. To evaluate this validity, and following Hair et al. (2014), we used Cronbach's alpha analysis, the Fornell and Larcker composite reliability index (Fornell & Larcker, 1981) and the average variance extracted (AVE). In the first two cases, the reference point was 0.7, and for the third it was 0.5 (Hair et al., 2014; Roldán & Sánchez-Franco, 2012). We can see in Table 4 how all the criteria were met for the model studied; thus we can conclude that the reflective constructs were reliable. Thus, the minimum value obtained from Cronbach's alpha was 0.853, the composite reliability is 0.858 and the AVE, 0.552. To measure the discriminant validity, the square root of the AVE was compared (located on the diagonal of the matrix in Table 4) with the correlations between the constructs (the elements located outside the diagonal) (Chin, 1998; Roldán & Sánchez-Franco, 2012). It was observed that, on average, each construct related more strongly to its own measurements than with other constructs. Also, and to verify that all the constructs were



significantly different, the chi-square difference test was carried out (Berteau & Zait, 2011). Additionally, the evaluation of the heterotrait–monotrait ratio (HTMT) was used (Henseler et al., 2015). This measure establishes the proportion of heterotrait–monotrait correlations with confirmed discriminant validity when the values are less than 0.90 (Hair et al., 2014), with this criterion being more demanding than the previous ones. The highest value obtained in our sample was 0.778. Therefore, there were no problems of discriminant validity.

#### **Table 4: Reliability, convergent validity and discriminant validity: correlation coefficients and chi-square difference test**

To check that the fit of the structural model is adequate, we verified this model with some measures of goodness of fit. To this end, we used robust estimators to fit the measurement model (Satorra, 2003; Satorra & Bentler, 2001). Table 5 shows the results, which all exceeded the recommended thresholds (CFI = 0.964; TLI = 0.955; RMSEA = 0.056; SRMR = 0.061), indicating therefore that the adjustment of the structural model was appropriate.

#### **Table 5: Measures of the model fit**

We shall now analyse the hypotheses presented. In order to do so, in the path analysis, the importance of a path is determined based on its p-value. As shown in Figure 1, the results showed that 53.9% of the variance of the intention to commit accounting fraud was explained by the model variables. Furthermore, the  $R^2$  of moral justification was 23.9% and the displacement 12.1%. Furthermore, as can be seen in Figure 1 and Table 6, the hypothesis that posited a direct relationship between anomie and the intention to commit accounting fraud (H1) was not supported ( $\beta = 0.027$ ,  $p = 0.703$ ). On the other hand, the following relationships were supported: that which links the displacement of

responsibility with the intention to commit accounting fraud ( $\beta = 0.144, p = 0.013$ ), that which relates to moral justification with the intention to commit accounting fraud ( $\beta = 0.681, p < 0.001$ ), that which links anomie with the displacement of responsibility ( $\beta = 0.348, p < 0.001$ ) and, finally, that which relates anomie with moral justification ( $\beta = 0.489, p < 0.001$ ).

### **Figure 1: Structural model**

### **Table 6: Results of path analysis**

The mediation hypotheses were tested applying the bootstrapping procedure (using 5000 resamples) to determine at 95% the confidence intervals with corrected bias around these effects (Hille et al., 2015). Table 7 shows that hypothesis H2, which asserts that the displacement of the responsibility average between anomie and the intention to commit accounting fraud, was supported ( $c^*e: \beta = 0.050, p = 0.043, [0.006; 0.132]$ ). Furthermore, hypothesis H3, which considers that the moral justification mediates the relation between anomie and the predisposition to commit accounting fraud ( $a*d: \beta = 0.333, p \leq 0.001, [0.233; 0.603]$ ), was also supported. Given this, it can be stated that the mediation was complete. Finally, it is worth mentioning that the total effect, direct plus indirect, was also significant ( $\beta = 0.410, p \leq 0.001, [0.276; 0.691]$ ).

### **Table 7. Mediation analysis**

## **4. Discussion**

The purpose of this work was to study the mediating role that two mechanisms of moral disconnection, the displacement of responsibility and moral justification, can play between anomie and having the intention to commit accounting fraud. The results obtained support the hypotheses raised. This work is in line with that of Barsky (2011)

and Niven and Healy (2016) by focusing on the investigation of some of the mechanisms of moral disengagement but not all. Our work contributes to the accounting literature available in that it provides a broader understanding of accounting fraud by including psychological factors in the study. Furthermore, a contribution is made to the literature on ethical conduct in organisations.

With regard to the theoretical implications of the study, firstly, it has been found that there is not a direct relationship between anomie and the intention to commit accounting fraud (H1). However, the total relationship (direct + indirect effect) between these two variables is significant, which strengthens what was found in the research of Caruana et al. (2000, 2001) and Van Akkeren and Buckby (2017), who confirmed that there is a relationship between anomie and being involved in unethical behaviour on the job. The analysis of this hypothesis responds to the works of Agbo and Iwundu (2016), Murphy and Dacin (2011) and Ramamoorti and Olsen (2007), who propose that psychological aspects could influence the moral behaviour of fraudsters. It should also be noted that this work increases the knowledge of anomie and its influence on organisational behaviour, which is scarce in the academic literature. This scarcity is striking considering that anomie is an endemic problem in the workplace (Tсахuridu, 2011). If attention is focused on organisational behaviour within the accounting field, this lack is even greater despite the fact that Riahi-Belkaoui & Picur (2000) indicated that accounting fraud, failed audits and other white collar crimes are the direct result of anomie in society.

Our research shows that the presence of anomic people can be a problem for companies since they have a greater tendency to value their individual interests and motivations over social interests, and this can lead them to behave unethically, as indicated by Zoghbi-Manrique-de-Lara and Guerra-Báez (2018). The results of this article, following the recommendation of Ramamoorti (2008) to delve into the study of

the psychological factors that influence the intention to commit accounting fraud, provide companies with a perspective of how anomie influences said intention.

Support has been found for hypotheses H2 and H3, which posited that the displacement of responsibility and moral justification mediated the relationship between anomie and the intention to commit accounting fraud. The fact that these hypotheses were supported is in line with what was obtained by Sánchez-Medina et al. (2017), who used displacement of responsibility as a mediator between anomie and unethical behaviour by managers. It is also consistent with the study by Gan (2018), which indicated that moral justification mediates the relationship between ethical leadership and unethical employee behaviour. Additionally, we contribute to the call of researchers, such as Ashforth and Vikas (2003), Claybourn (2011) or Murphy and Dacin (2011), to further investigate the different mechanisms of rationalisation of fraudulent acts, and we expand the field of the limited studies that evaluate the different mechanisms of moral disconnection (Newman et al., 2019).

According to Martin et al. (2009), as anomie in most organisations is a consequence of the pressure exerted on people to achieve difficult economic goals, this can cause employees to resort to illegal and immoral means to achieve them. In this environment, for example, resorting to accounting fraud could be one way to achieve these goals. Although many employees, like most people, know what is right and wrong, they are not always going to behave appropriately, and some may find it easier to disconnect from their ethical principles and commit nefarious acts (e.g., Egan et al., 2015). Such behaviour is consistent with moral disconnection (Bandura, 1986). Thus, in the WorldCom accounting fraud, Buford Yates Jr., the accounting director, alleged that he only followed the orders of his supervisors to manipulate the accounting books to meet Wall Street expectations (Choo & Tan, 2007). Such behaviour could be seen as the

mechanism of displacement of responsibility proposed by Bandura et al. (1996), which consists of passing responsibility for a wrongdoing over to an authority figure.

The main practical implication of the work is to provide companies with a better understanding of the problem of accounting fraud, a key question if the enormous associated costs are taken into account (Helge et al., 2015). Thus, the detection and supervision of employees who are anomic or have a greater inclination to disconnect morally could contribute to reducing the intention to commit accounting fraud. In order to prevent anomie from leading to fraudulent behaviour in organisations by neutralising the mechanisms that drive from anomie to the intention to commit accounting fraud, the actions taken could be directed towards designing firm and clear rules that condemn the occurrence of immoral behaviour, making them known to all personnel, both old and new.

Support for these norms and the transmission of moral values by the company is considered essential to prevent anomie from taking root in organisations, as already indicated by Zoghbi-Manrique-de-Lara (2009). Those in charge of companies could play a fundamental role in the aforementioned process since it is they who shape and reinforce the ethical climate with the way they conduct their business, as concluded by Appelbaum et al. (2007) and Sims and Brinkmann (2002). Since the mechanisms of displacement responsibility and moral justification have a moral basis, it is also proposed that the firm could adopt an ethical leadership style as a measure to reduce moral disconnection (Huang & Yan, 2014; Moore, 2008). Because ethical leadership implies that decision-making in the firm could be made with ethics, morals and how the end results are achieved in mind, not just the achievement of the end results, it is inconsistent for ethical leadership to rationalise fraudulent acts (Bonner et al., 2016).

The results of this study could also have a practical implication for university student educators, especially in the business field. Teaching the different rationalisation

mechanisms and raising awareness of their existence would help prevent their use, as Murphy (2010) concluded. Since one of the paths to fraudulent behaviour is to accept the rationalisation of these unethical acts, making students aware of this during their training will help them not only to realise how easily fraud can be committed but also how to avoid it. This is in line with what is indicated by Murphy and Dacin (2011).

## **5. Conclusions, limitations and future research**

Accounting fraud cases have become a major concern for companies, governments and regulators and continue to occur despite efforts to stop them (PricewaterhouseCoopers, 2020). But even more alarming is the fact that many of those guilty of the fraud do not seem sorry for the damage caused, and some even argue that their behaviour was ethical (Cory & Treviño, 2017). For example, Andrew Fastow, Enron's former CFO, stated that he never thought he was committing a crime.

Researchers and regulators wonder what ethical reasoning leads people in organisations to behave in this way. Although not all people in situations of tension and anomie will resort to fraudulent behaviour (Van Akkeren & Buckby, 2017), our work contributes to demonstrating how anomie, a moral factor that causes deviant behaviour in organisations (Caruana et al., 2000, 2001), may be an element that leads to a greater intention to commit accounting fraud. The displacement of responsibility and moral justification are the mechanisms of moral disconnection that have been used in this work as mediators between anomie and the intention to defraud. This is in line with what was investigated by Dang et al. (2017) and Smith (2011), who analysed the use of moral disconnection techniques used by fraudsters to justify participation in accounting fraud. This work has also sought to help managers understand and manage the effects of anomie and moral disconnect in their organisations.

One of the main contributions of this paper lies in that it is the first to analyse the psychological anomie of individuals as opposed to the majority of papers that use social anomie (e.g., da Costa & Wood, 2012; Dixon, 1995; Machado & Gartner, 2017). Moreover, it is also the first to study the mediating role of displacement of responsibility and moral justification in the relationship between psychological anomie and the intention to commit accounting fraud. This study adds to the body of research that examines how psychological factors can lead to deviant behaviour in firms (e.g., Christian & Ellis, 2014; Murphy & Dacin, 2011; Ramamoorti, 2008; Schuessler, 2018).

The limitations of the present study are due to the cross-sectional methodology used, thus increasing the probability that the study suffers from bias because of the use of a single method/data source. Since the relationships between the variables can change over time, the use of the transversal methodology will not capture these changes (Pitariu & Ployhart, 2010). Secondly, we surveyed university students of business and law degrees, which implies that the results cannot be generalised since there may be elements such as age, experience or reputational aspects that could influence their future behaviour. Nor can we categorically conclude what their behaviour will be if they experience anomie since the path that anomie takes in organisations still needs to be further studied (Zoghbi-Manrique-de-Lara & Guerra-Báez, 2018).

Finally, for future lines of research, as proposed by Newman et al. (2019), this study could be extended to other mechanisms of moral disengagement to determine which of them has a greater relationship with fraudulent behaviour. Determining the profiles of moral disconnection in organisations can help to understand why some mechanisms or others are used by employees and on what managers should focus their efforts to reduce this behaviour. We suggest conducting this same study with convicted accounting fraudsters and investigating what motivated them to disengage morally. Another line of

research can explore the relationship of the rationalisation mechanisms studied with the elements of the fraud triangle. Finally, we propose to extend the study by Kish-Gephart et al. (2014) by looking at how situational factors in companies affect anomic employees and their influence on different rationalisation mechanisms.

### **Disclosure statement**

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## 7. Appendix

### *Appendix 1*

This questionnaire is the basis for research related to psychological factors of accounting managers in companies. Please note that there are no right or wrong answers and you do not need to be an expert to answer it. Answer honestly and express your opinions as accurately as possible. There is no time limit, but try to work as quickly as possible. Do not spend too much time on the answers.

We would like to state in advance that the information you provide will be treated globally and exclusively for the purposes of this research, always guaranteeing your total anonymity.

#### LEVEL OF AGREEMENT

NOTHING      TOTAL

#### ANOMIA

Despite what some say, the situation of the average citizen worsens.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
It's hard to bring a child into the world the way things are going.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Most public employees are not interested in the	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>

problems of others.							
These days you don't know who you can really count on.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Today, we have to live very much in the present and not think about tomorrow.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>

**DISPLACEMENT OF RESPONSIBILITY**

Employees are not to blame for "adapting the accounts" if their boss puts too much pressure on them to get the job done.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Employees cannot be blamed for "adapting the accounts" if they feel that their boss puts pressure on them to do so..	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
If an employee perceives that his employer wants him to "adapt the accounts", it is unfair to blame him for doing so.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Employees cannot be blamed for "adapting the accounts" when all the other employees do it.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>

**MORAL JUSTIFICATION**

It is fine to "adapt the accounts" to give the impression that your company has no problems.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
It is fine to "adapt the accounts" to cheat your customers if it makes it easier for you to do your homework.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>

It is OK to "adapt the accounts" to protect your business.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
If an employee needs to distort the truth to do his job, he cannot be blamed for lying.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>

**INTENTION**

I would be willing to take the risk of "adapting the accounts" so that my company is favoured.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
I am certain that I will "adapt the accounts" in the future to make my company better off.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
I will do everything I can in the future, including "adapting the accounts" to improve my company's results.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>

**CLASSIFICATION DATA**

**Sex**

Male..... 1

Female..... 2

**Age**

Please indicate your age

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## Appendix 2

As a previous and necessary step to be able to evaluate the moderating effect, the invariance of the measurement model in both groups was evaluated (Beaujean, 2014; Byrne, 2009). In order for differences between groups to be evaluated, there must be at least weak invariance between them.

Following Beaujean (2014), for this to occur, invariance must be evaluated when loadings are constrained. To perform the comparison, an Anova of the fit of the constrained and unconstrained model was performed, the result being  $\Delta\chi^2 = 9.24$ ,  $\rho = 0.68$ . Since it was not significant, it can be assumed that there was weak invariance. The existence of weak invariance implies that it is feasible to make significant comparisons between groups of the variances and covariances of the latent variables. However, if one also wants to compare latent means or observed means one must have strong invariance (Beaujean, 2014; Tshilongamulenzhe, 2015). To check this, we constrained the intercepts to which the model was fitted and compared this with the previous one, with the result being  $\Delta\chi^2 = 8.179$ ,  $\rho = 0.77$ . Since the difference was not significant either, it can be concluded that there was invariance in the measurement model and, consequently, the moderating effect of the titration variable was able to be evaluated.

With this objective in mind, different models were proposed, in which the value of the relationship between each variable of the initial model was constrained to have the same value, and the fit of this model was compared with one without constraints. The results are shown in the following table, in which the differences in  $\Delta\chi^2$  are indicated. As reported in Hair et al. (2014), the chi-square difference has to be above 3.84 for a significant difference to exist. As can be seen, this did not occur in any of the cases.

<b>Direct Effect</b>	$\Delta\chi^2$	$\rho$ -Value
Anomie → intention (b)	0.028	0.867
Displacement → intention (e)	$\leq 0.001$	0.978
Justification → intention (d)	1.135	0.713
Anomie → Justification (a)	1.927	0.534
Anomie → Displacement (c)	$\leq 0.001$	0.9876

## 8. Tables

**Table 1. Demographic characteristics of sample**

	<b>SAMPLE n (%)</b>
<b>TOTAL</b>	178 (100%)
<b>SEX</b>	
<b>M</b>	74 (41.6%)
<b>F</b>	104 (58.4%)
<b>AGE years</b>	
<b>20–24</b>	141 (79.2%)
<b>25–30</b>	31 (17.4%)
<b>&gt; 30</b>	6 (3.4%)

**Table 2. Confirmatory Analytical Factorial Approach**

Satorra-Bentler $\chi^2$ (117)	$\chi^2 / df$	CFI	RMSEA
756.521	6.465	0.631	0.175
Satorra-Bentler $\chi^2$ (111)	$\chi^2 / df$	CFI	RMSEA
174.018	1.569	0.964	0.056



**Table 3: Confirmatory analyses**

<b>Construct/Indicator</b>	<b>Standardised loading</b>	<b>Z-value</b>	<b>p-value</b>
<b>Anomie</b>			
Despite what some say, the situation of the average citizen worsens.	0.750		
It's hard to bring a child into the world the way things are going.	0.840	13.623	≤ 0.001
Most public employees are not interested in the problems of others.	0.842	13.660	≤ 0.001
These days you don't know who you can really count on.	0.699	12.403	≤ 0.001
Today, we have to live very much in the present and not think about tomorrow.	0.561	7.481	≤ 0.001
<b>Displacement</b>			
Employees are not to blame for “adapting the accounts” if their boss puts too much pressure on them to get the job done.	0.840		
Employees cannot be blamed for “adapting the accounts” if they feel their boss pressured them to do so.	0.871	20.481	≤ 0.001
If an employee perceives that his/her company wants him/her to “adapt the accounts”, it is unfair to blame him/her for doing so.	0.762	11.837	≤ 0.001
Employees cannot be blamed for “adapting the accounts” when all other employees are doing so.	0.771	10.715	≤ 0.001
It is unfair to blame an employee who only had a small role in the company's "adapting the accounts".	0.776	12.039	≤ 0.001
<b>Moral Justification</b>			
It is okay to “adapt the accounts” to give the impression that your company has no problems.	0.922		
It's okay to “adapt the accounts” to trick your customers if it makes it easier for them to do their work.	0.927	18.623	≤ 0.001
It's okay to “adapt the accounts” to protect your business.	0.849	15.453	≤ 0.001
If an employee needs to distort the truth to do his/her job, he/she cannot be blamed for lying.	0.750	13.105	≤ 0.001
<b>Intention</b>			
I would be willing to risk “adapting the accounts” so that my company is favoured.	0.817		
I am sure that in the future "I will adapt the accounts" so that my company is favoured.	0.912	13.377	≤ 0.001
In the future, I will do everything possible, including “adapt the accounts” so that my company gets better results.	0.965	14.712	≤ 0.001

**Table 4: Reliability, convergent validity and discriminant validity: Correlation coefficients and chi-square difference test**

<b>Cronbach's alpha</b>	<b>Composite reliability</b>	<b>AVE</b>	<b>Construct</b>	<b>Anomie</b>	<b>Intention</b>	<b>Displacement</b>	<b>Justification</b>
0.853	0.858	0.552	Anomie	<b>0.743</b>			
0.922	0.928	0.811	Intention	0.380*** (21.782***) #0.420#	<b>0.901</b>		
0.901	0.902	0.660	Displacement	0.315** (14.297***) #0.365#	0.499*** (43.431***) #0.541#	<b>0.812</b>	
0.853	0.958	0.552	Justification	0.472*** (33.653***) #0.485#	0.752*** (115.11***) #0.778#	0.582*** (55.511***) #0.617#	<b>0.851</b>
<p>Note: n = 230; ***<math>p \leq 0.001</math>; **<math>p \leq 0.01</math>; square root of AVE (in bold) is shown on the diagonal; Off-diagonal elements correlation coefficients; values in brackets show the chi-square difference statistics with <math>df = 1</math>; values in # show the heterotrait–monotrait correlations.</p>							

**Table 5: Measures of the model fit**

Number of observations 178		
Estimator	Maximum likelihood	Robust
Minimum Function Test Statistic	238.511	174.018
Degrees of freedom	111	111
<i>P-value (Chi-square)</i>	$\leq 0.001$	$\leq 0.001$
Scaling correction factor or the Satorra-Bentler correction		1.371
Model test baseline model		
Minimum Function Test Statistic	2361.736	1867.365
Degrees of freedom	136	136
<i>P-value</i>	$\leq 0.001$	$\leq 0.001$
	Maximum likelihood	Robust
User model versus baseline model		
Comparative Fit Index (CFI) <sup>a</sup>	0.943	0.964
Tucker-Lewis Index (TLI) <sup>b</sup>	0.930	0.955
RMSEA <sup>c</sup>	0.080	0.056
SRMR <sup>d</sup>	0.061	0.061

<sup>a</sup>Recommended value  $\geq 0.90$  [53]

<sup>b</sup>Recommended value  $\geq 0.90$  [53]

<sup>c</sup>Recommended value  $\leq 0.08$  [54]

<sup>d</sup>Recommended value  $\leq 0.10$  [54]

**Table 6: Results of path analysis**

<b>Direct Effect</b>	<b>Estimate</b>	<b>Standard error</b>	<b>Z-value</b>	<b>p-value</b>	<b>Percentile Bootstrap 95% confidence interval</b>	<b>Remarks</b>
Anomie → intention (b)	0.027 <sup>ns</sup>	0.084	0.381	0.703	[-0.176; 0.193]No Sig	Not Supported
Displacement → intention (e)	0.144 <sup>*</sup>	0.046	2.472	0.013	[0.022; 0.228]Sig	Supported
Justification → intention (d)	0.681 <sup>***</sup>	0.087	7.362	≤ 0.001	[0.461; 0.823]Sig	Supported
Anomie → Displacement (c)	0.348 <sup>***</sup>	0.197	3.650	≤ 0.001	[0.446; 0.908]Sig	Supported
Anomie → Justification (a)	0.489 <sup>***</sup>	0.107	5.834	≤ 0.001	[0.416; 0.908]Sig	Supported
Significance level: ***p < 0.001; **p < 0.01; *p < 0.05; <sup>ns</sup> not significant Sig: significant; No Sig: not significant						

**Table 7. Mediation analysis.**

<b>Indirect Effect</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>Z-value</b>	<b>p-value</b>	<b>Percentile Bootstrap 95% confidence interval</b>
c*e	0.050*	0.029	2.023	0.043	[0.006; 0.132] Sig
a*d	0.333***	0.089	4.446	≤0.001	[0.233; 0.603] Sig
<b>Total Effect</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>Z-value</b>	<b>p-value</b>	<b>Percentile Bootstrap 95% confidence interval</b>
Anomie → intention	0.410***	0.104	4.690	≤0.001	[0.276; 0.691] Sig
Significance level: ***p < 0.001; **p < 0.01; *p < 0.05; <sup>ns</sup> not significant Sig: significant; No Sig: not significant					

**Figure 1: Structural model.**

