


The accountant, fear and fraud: an analysis in the light of emotions


O contador, o medo e a fraude: uma análise a luz das emoções

El contador, el miedo y el fraude: un análisis a la luz de las emociones

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Abstract

In order to investigate the effect – inhibit or motivate – of 'fear' and the individual's willingness to participate and report fraud, the organizational 'social fears' were observed in 332 subjects, exposed to 3 scenarios: participation in fraud; whistleblowing (without participation in fraud or favouring) and plea bargain (with participation in the fraud and the benefit of reducing penalties). The results reveal that the willingness to participate in the fraud is positively related to the social fears of the 'hierarchy' and 'of losing economic benefits in the organization' and, negatively, to the fears 'of the penal rule' and of 'jeopardizing reputation in the market'; for whistleblowing, there are the fears of 'being disloyal to the company' and 'disapproval from family and friends' and concerning plea bargain, the fears 'of risking the reputation in the market' (motivates) and 'disapproval by colleagues' (inhibits).

Keywords: Emotions; Fear; Fraud; Whistleblowing; Plea bargain

Resumo

Com objetivo de investigar o efeito – inibidor ou motivador – da emoção 'medo' e a disposição do indivíduo de participar e denunciar a fraude corporativa, observou-se os 'medos sociais' organizacionais em 332 sujeitos, expostos a 3 cenários: participação em fraude; *whistleblowing* (sem participação na fraude ou favorecimento) e delação premiada (participação na fraude e favorecimento pela denúncia). Os resultados revelam que a disposição para participar da fraude está positivamente relacionada aos medos da 'hierarquia' e 'de perder benefícios econômicos na organização' e, negativamente, aos medos 'da norma penal' e de 'colocar em risco a reputação no mercado de trabalho'; para *whistleblowing* têm-se os medos de 'ser desleal com a empresa' e 'da reprovação familiar e de amigos' e na delação premiada, os medos 'de colocar em risco a reputação no mercado de trabalho' (motiva) e o 'de reprovação pelos colegas' (inibe).

Palavras-Chave: Emoções; Medo; Fraude; Whistleblowing; Delação premiada

Resumen

Para investigar el efecto – inhibitorio o motivador – de emoción 'miedo' en la disposición del individuo de participar y denunciar el fraude corporativa, se observó el 'miedo' en 332 sujetos, expuestos a 3 escenarios: participación en fraude; whistleblowing (sin participación en el fraude o favorecimiento) y delación premiada. Los resultados revelan la disposición para participar del fraude está positivamente relacionada a los miedos sociales de la 'jerarquía' y 'de perder beneficios' y, negativamente, a los miedos 'de la norma penal' y de 'poner en riesgo la reputación'; para whistleblowing se tienen los miedos de 'ser desleal con la empresa' y 'de la reprobación familiar y de amigos' y en la delación premiada, los miedos 'de poner en riesgo la reputación' (motiva) y el 'de reprobación por los colegas' (inhibe).

Palabras clave: Emociones; Miedo; Fraude; Whistleblowing; Delación premiada

1 Introduction

In recent decades, corporate fraud – a kind of white-collar crime – has occupied a prominent place in the national and foreign media, partly attracted by crime statistics. For example, ACFE – Association of Certified Fraud Examiners (2018, 2020) identified in surveys conducted in 125 countries, in 2017 and between 2018 and 2019, the occurrence of losses resulting from occupational fraud – committed by managers and employees against the entity itself in which they work – worth more than US\$7 billion in 2017 and US\$3.6 billion between 2018 and 2019; while fraudulent schemes involving financial statements, despite representing only 10% of the cases analyzed, accounted for the highest losses. Although not all corporate fraud is classified as “accounting” or “financial statements”, a significant part makes use of accounting to cover up and/or perpetuate its acts; confirming the relevance of accounting as an “instrument”, albeit in a negative way in this context.

More visible, corporate fraud also attracted academics. Abundant studies that seek to identify red flags indicative of fraud (eg; Pincus, 1989; Riahi-Belkaoui & Picur, 2000; Gullkvist & Jokipii, 2013; Brazel, Jones, Thayer, & Warne, 2015; Taylor, 2021), as well as those dedicated to analyzing factors that motivate and inhibit fraud (eg Duffield & Grabosky, 2001; Singleton & Atkinson, 2011; Geep, Kumar, & Bhattacharya, 2020).

In addition to the negative impact of corporate fraud on the assets of organizations, its harmful effects are much broader. Unemployment, increased income inequality and general criminality (Golden, 2021), deterioration of savings (e.g. in pension fund assets), withdrawal of investors from the stock market and consequent increase in the cost of raising funds, among others (e.g., Rezaee, 2005; Zahra, Priem, & Rasheed, 2005; Sadka, 2006; Levi, 2009; Toms, 2019).

In this scenario, the concern of the State and companies in preventing and detecting fraud is justified. Among the initiatives, more comprehensive laws, more severe penalties, expansion of the possibilities of producing evidence, among others, have been used by the States – including in Brazil – in order to reduce the incidence of corporate fraud. For example, the accountant was expressly included in articles 342 and 343 of the Penal Code (Law nº 10.268/01), in crimes related to false testimony. Imbued with the same purpose, Law No. 9,613/98 (Article 11, item III) determines the mandatory reporting of accounting professionals and organizations to COAF (Financial Activities Control Council) about certain crimes. Also focused on the production of evidence, the controversial institutes of plea bargaining and leniency were “transplanted” from common law systems to the Brazilian system.

In companies, the development and strengthening of structures and mechanisms of corporate governance, the expansion/sophistication of internal controls, the growing presence of mechanisms that facilitate reporting (complaint channel, code and training in ethics) also exemplify the concern to reduce corporate fraud. According to ACFE (Association of Certified Fraud Examiners, 2018, 2020) whistleblowing is the initial detection method for 40% of fraud occurring in the corporate environment.

Crime statistics confirm the need to address denouncements (and whistleblowers) of fraud – on which a significant part of research is based – because they do not include the ‘dark numbers’ and the ‘golden numbers’. The ‘black figures’ generally cover occurrences of crimes not reported, due to lack of interest or fear of the victims in communicating, unsuccessful investigations, lack of punishment, etc.. The ‘golden figures’, in turn, are those referring to so-called ‘economic crimes’, in which the probable explanations of occurrence are related, among other aspects, to the State’s lack of interest in the investigation and punishment and, in the company’s fear of public exposure of the fraud and the risks arising therefrom (e.g. image) (Sutherland, 1940; Sutherland, 1945; Holtfreter, Van Slyke, Bratton, & Gertz, 2008; Gottschalk & Tcherni-Buzzeo, 2016).

Due to their relevance, denouncements have also been the subject of several studies that interface with morality, sociology or psychology, in particular whistleblowing (e.g. Clements & Shawer, 2015; Robinson, Robertson, & Curtis, 2012; Johansson & Carey, 2016; Tsahuridu, 2019). Rarer, however, are studies that address the motivating or inhibiting factors for reporting without or with favoritism (whistleblowing) in a context of corporate fraud of an accounting nature (Taylor & Curtis, 2010; Dinc, Kuzey, Gungormus, & Atalay, 2018).

In the context of corporate fraud, one cannot ignore the effect that emotion has on decisions to participate or not in a fraud or even to report it, even in a context of whistleblower protection (Wainberg & Perreault, 2016; Dinc et al., 2018), as the fear of reprisals may be greater than the willingness to report. It is in this sense that emotions affect individuals’ decisions (Bazerman & Moore, 2009; Damasio, 2000) in the various dimensions of their lives (family, love, professional, etc.), not being different with accounting choices, which are also related with emotions (Milan, Weffort, Silva, & Cornachione Junior, 2015; Dinc et al., 2018).

Given the context presented here, this research has the primary objective of investigating the effect - inhibiting or motivating - of the emotion ‘fear’ and the individual’s willingness to participate and/or to denounce corporate fraud. For the purpose of analysis, the so-called ‘social fears’ in an organizational environment were observed (Freitas & Dantas, 2014; Rosa, Martinez, & Balassiano, 2015; Henik, 2008). Organizational social fears were chosen because they best characterize the subject’s context in which the scenarios are likely to occur. With regard to the complaint, the following were analyzed separately: i.

whistleblowing, referring to the denouncement by an individual who did not participate in the fraud, nor will he receive any benefit from the denunciation; ii. plea bargaining, referring to the complaint made by an individual who participated in the fraud and, when denouncing, receives favor, such as a reduction in the penalty.

In general, it appears that research on fraud is abundant, but not with the approach and subjects chosen here, making it relevant in view of the gap identified in the literature of studies that incorporate the effect of emotions in the decisions of those involved with the preparation of financial statements (accountants and other managers) in corporate fraud schemes, as well as their collaboration in denunciations, with (plea bargaining) or without favor (whistleblowing). Also unprecedented when observing the effect of fear as a moderating factor in the Brazilian scenario.

The results, obtained from the response of 332 individuals, reveal the individual's willingness to participate in fraud due to the 'fear of hierarchy' and 'of losing economic benefits', while the 'fear of the norm' ('punishments' and of 'putting risk your reputation' are factors that inhibit participating in the fraud). The willingness to report occurs when: there is loyalty to the company, fear of disapproval from the family and reputation in the job market, the last factor being only in the presence of benefits (plea bargaining). The fear of disapproval from colleagues is an inhibiting factor for denunciation, even in a plea bargaining scenario. The unpublished results obtained may support future research in the exploration of variables and methodological choices, as they point to motivating factors for fraud participation (economic benefits and respect for hierarchy) and inhibiting factors (reputation in the labor market and fear of the norm – punishment).

It is expected that this research will contribute, in addition to the aforementioned construction of scientific knowledge, with companies, serving as an alert to the need to place the individual at the center of discussions on reporting channels, training, internal control mechanisms and leadership posture, in order to prevent fear from inhibiting denunciations and favoring fraud. For regulators and law enforcers, the results can help in assessing the effectiveness of the rule and its enforcement (including the plea bargaining institute), in the socio-political-economic scenario to which preparers of Brazilian financial statements are exposed. For class bodies and professional associations, the survey contributes to highlight points of attention in the training and monitoring of its members, mainly in the sense of minimizing the negative effect of fear (to favor participation in fraud and inhibit the denouncement) in their choices and to ensure the application of penalties (positive effect of fear), for example.

2 Theoretical Platform and Hypothesis Development

2.1 Emotion and decision-making process

Emotions are a complex set of chemical and neural reactions that form a pattern and affect towards a goal (Damasio, 2000). Even if present in other animals, in humans emotion is always linked to ideas, principles and values. Emotions differ from feelings because the former “constitute actions accompanied by ideas and certain ways of thinking” while feelings are “perceptions of what our body does during emotion” (Damasio, 2009, p. 142).

Both individual and social dimensions are present in emotions; because, despite being associated with each individual's own perception of a given situation, there is a social construction underlying such perception (Frijda, Manstead, & Bem, 2000).

Among the classifications given to emotions, the primary or secondary stand out and; positive or negative. The primaries are universal emotions such as happiness, sadness, fear, anger, etc. The secondary ones are those that occur in social media such as pride, jealousy, guilt, etc. (Damasio, 2000). The distinction between positive and negative, in turn, is more directly related to the different impacts on the behavior of individuals.

Fear, in this classification, is a primary emotion and, therefore, present in all subjects; it is the representation of a basic process of emotion (Damasio, 2000). It is an emotional reaction characterized by a sense of danger and anxiety (Garofalo, 1981) that can be so intense as to alter the state of various bodily structures and activities, as well as affect cognitive resources (e.g. attention and memory). Fear is, in this view, directly related to biological value, which, in turn, concerns the survival and well-being of the individual. Damasio (2009, p. 142) warns, however, that fear “may just be a false alarm induced by a culture that has gone awry”, generating stress that can compromise physical and mental health, contrary to what happens in “real” fear.

Feeling fear in relation to an object or event means having the ability to assess its danger and thus activate a series of actions. Fear can be seen as an internal and sophisticated regulator of external dangers (Cicero, 2004).

In a social context, the individual, in order to satisfy his own objectives (including, but not limited to, his own survival), subjects himself to the norms of the social group and the State under which he is organized. Inevitable fear in social life to preserve the integrity of the individual, to guarantee social cohesion

determined by the State, to direct conduct in the direction desired by a group, among others, without necessarily giving this a negative connotation.

In the organizational context it is no different. Pereira (2006) exemplifies that fear causes a combination of sensations when the word resignation is involved, as the fear of being fired is a mixture of the fact of not having the job anymore along with what will happen after that.

Evaluating fear contributes to tracing the most relevant points of the subjects' behavior in daily situations, understanding the values, choices, decisions and relationships that affect social life and the universe of organizations, whether public or private (Freitas e Dantas, 2014).

Although 'fear' is commonly associated with a negative emotion with harmful effects on the individual (e.g. anguish, anxiety, frustration), its usefulness is also recognized, in particular for the survival of the individual and for the cohesion of the group in complying with the rules of safety. established coexistence (Hobbes, 1992; Suarèz, 1993, Koury, 2002; Hobbes, 2003).

In an organizational environment, fear has been the subject of several studies, whether focusing on the individual – their health and well-being or their decisions – or observing the work environment – structures, leadership, speeches, etc. Several fears frequently present in the corporate environment were identified, among them, fear of change, fear of making mistakes, fear of disapproval and criticism, fear of success, fear of punishment and fear of hierarchy (Suarèz, 1993, Kish-Gephart, Detert, Treviño, & Edmondson, 2009; Porath & Pearson, 2012).

Concerning corporate fraud and accounting choices, previous studies corroborate the presence of emotions in the decision-making process. Lerner and Keltner (2000) and Clements and Shaver (2015) found a relationship between emotions and fraudulent reporting. Personality traits (such as neuroticism and extraversion) have also been associated with emotions and deceit (Bratton, 2004). In accounting choices, it was observed that positive emotions inhibit opportunistic behavior and negative ones tend to promote such behavior (Milan et al., 2015).

Regarding fear, according to Dejours (1982), it is always present in the work environment of most individuals, especially the fear of failure. Guénin-Paracini, Malsch and Paille (2014) found that French auditors permanently experience fear, including of failing, throughout the process until completion of the work and that this emotion plays an "ambivalent role", keeping them in control. constant alert, challenging them to surpass themselves in technical competence and professional judgment to seek relief in reaching the final opinion.

In this context, this research proposes to observe social fears in an organizational context, in particular their effect on the accounting professional's decision to participate or not in fraud. Next, a summary of previous studies that allowed the proposition of the guiding hypotheses.

2.2 Participation in fraud and fear

Corporate fraud can be understood as illegal conduct, with sanctions provided for in the civil and criminal spheres, practiced by the manager who, opportunistically, uses his position and access to the organization to obtain undue benefit for himself and/or third parties. As previously mentioned, the most relevant and long-lasting frauds usually involve the top organization (Martin, Aldhizer, & Baker, 2002) and require accounting "support" to cover them up (Riahi-Belkaoui & Picur, 2000; Rezzae, 2005; Riahi- Belkaoui, 2017).

It should be noted that accounting transactions are not value-free and, therefore, the choices made in accounting affect wealth (Watts & Zimmerman, 1990). Thus, when accounting choices are deliberately made to achieve an exclusive objective of a manager or a group of them, they are disconnected from the economic reality of the company (Jones, 2011).

Badawi (2005) highlights three groups most likely to commit fraud in financial statements, namely: senior management (CEO, CFO), mid-level managers and organizational criminals. The first group does it to hide the true result of the company, and thus preserve social status, maintain control and also their income. The second group commits an illegal act to hide their poor performance and thus ensure their participation in the result (bonus) at the end of the period. The third group acts to get loans or to inflate the price of the shares they intend to sell.

With regard to the motivating/inhibiting factors of fraud, two models stand out due to their presence in previous studies: the Theory of Planned Behavior (TPB, Ajzen, 1991) and the Fraud Triangle (Cressey, 1953) and its various derivations.

In summary, the TPB (Ajzen, 1991) identifies three factors that direct the individual's behavioral intention: (i) perceived control; (ii) perceived norms and; (iii) attitude. While perceived control concerns available opportunities and resources, perceived norms are associated with social incentives and acceptability of intended behavior. Attitude, in turn, reflects the individual's judgment about the consequences of the behavior. These factors could explain the individual's decision to participate or not in a fraud (eg. Buchan, 2005; Brown, Hays, & Stuebs Jr, 2016). Such as TPB, the "fraud triangle", conceived by Cressey (1953), encompasses three dimensions that would theoretically explain the behavior of defrauding: (i) pressure; (ii) opportunity and; (iii) rationalization. The individual's decision would be guided by the

pressure or motivation usually arising from financial difficulties, which adds to the opportunity, or favorable conditions to cover up the fraud and rationalization, a justification that "frees" him. The Cressey triangle (1953) was applied by numerous studies that followed it (e.g. Brazel et al, 2009; Homer, 2020; Geep, Kumar & Bhattacharya, 2020), despite criticisms about its limitations (e.g. Huber, 2017). Later studies incorporated other faces to the triangle, which are equivalent to other variables in predicting fraudulent behavior, such as the diamond (Wolfe & Hermanson, 2004), pentagon etc. (Marks, 2012).

Considering, therefore, the multiplicity and complexity of the factors that affect the individual's behavior towards the practice of fraud (e.g. Rezzae, 2005, Riahi-Belkaoui, 2017), the present research chose 'fear' for investigation, which would clearly fit in the elements contained in the models of Cressey (1953) and Ajzen (1991). However, its approach is more restricted, dedicating itself solely to the effect of emotions, especially fear, addressed in the field of psychology and organizational theory, on the individual's decision to participate in fraud (Murphy & Dacin, 2011; Lombardo, 2015). Among the fears that could affect – motivating or inhibiting – the decision to participate in the fraud, punishment stands out (e.g. Lerner & Keltner, 2001; Holtfreter et al, 2008; Scott, 2015; Gomes, 2015; Goel and Mazhar, 2019); which may be of a financial nature, such as compensation for damages caused and fines, or even of a personal nature, such as deprivation of liberty or restriction of rights. Punishments can occur both at the corporate level and under the aegis of the State.

Other common fears in organizations that may affect the decision to participate in fraud, for example, are violating the hierarchy, losing their jobs (Pereira, 2006), company retaliation (Robinson et al., 2012), losing their professional reputation (Rosa et al., 2015) and social disapproval.

Although fear is inherent to human beings, including in the exercise of professional activity, the intensity and conditioning of actions based on fear will depend, in addition to the characteristics of each individual, on the organizational culture and the attitude assumed by managers. The fear of making mistakes, for example, concerns the individual's fear of failing, of being repressed and especially of not meeting the expectations placed on him and, as some researches indicate, high-ranking executives would be more exposed to them, which would lead to a propensity for fraud with deliberate changes in financial statements (Dejour, 1982, Guérin-Paracin, et al, 2014).

Based on this theoretical framework, the following hypothesis was proposed:

H₁: Fear has an effect (inhibitor or motivator) on the subject's willingness to participate in the fraudulent scheme.

2.3 Whistleblowing and fear

Whistleblowing is the disclosure, usually by members of the organization, of illegal, immoral or non-legitimate practices under the control of their employers, people or organizations (Near & Miceli, 1995), with the purpose of interrupting illegal activity (Henik, 2008). The whistleblowing process involves four elements: the whistleblower; the act of whistleblowing; the recipient of the report (e.g. an authority, a hotline) and the organization and/or person against whom the report is made.

Considered an important tool for detecting and preventing fraud (Albrecht, Holland, Skousen, & Skousen 2018; ACFE, 2020), whistleblowing is encouraged in companies as an efficient and low-cost tool for reducing fraud, transpiring in policies, reporting channels, ethical training, among others.

In recent decades, massive corporate scandals – Enron, Parmalat, WorldCom, Lehman Brothers, AIG, just to name a few – have put the spotlight on the figure of the whistleblower and its relevance, especially in frauds that rely on accounting cover-up, and broad involvement of the high administration and/or high-ranking public officials. Typically, such fraud results in the embezzlement of massive resources with harmful consequences for society as a whole.

Supported, therefore, by these arguments, there are several initiatives by regulators from different countries in the issuance of laws to encourage whistleblowing, granting protective measures to the whistleblower and, sometimes, as is the case in Brazil, even making it mandatory for some professionals, such as accountants, an aspect mentioned in the introduction to this article.

Still, little is known about many aspects of the decision to report an illegal act (Sampaio & Sobral, 2013). Gao and Brink (2017) observed the personal characteristics of the whistleblower (personality and moral values) and those who receive the report as motivating factors for the complaint. Curtis and Taylor (2009) identified the influence of personal characteristics on accounting professionals' whistleblowing.

In the Brazilian context, Fajardo and Cardoso (2014) identified a dual character of social influence both with regard to the identification of moral issues and the ethical behavior of the individual, while Sousa, Vasconcelos, Antunes and Silva (2013) found a possible relationship between accounting perception and the propensity to defraud. Silva and Sousa (2017) conclude that the presence of an internally operated anonymous reporting channel increases the likelihood of employees carrying out fraud reports.

Concerned with the issue of individual variables, Henik (2008) investigated, among other points, the emotions in this decision-making process regarding complaints, including fear, seen as an emotion that arises in subjects in situations in which they are uncertain, which is believed to be out of control. Fear in

reporting situations refers to retaliation, by colleagues and peers, for example. Thus, he concluded that whistleblowers are not disloyal or dissatisfied with the company, on the contrary, they believe in the objectives, but strongly disagree with the actions that are being taken for this. In addition, he points out that emotions become stronger and change the decision of the subjects when actions taken in the company do not reduce or end the fraudulent acts that are being committed (Henik, 2008).

Robinson, Robertson, and Curtis (2012) found that employees are less likely to report fraudulent financial statements than theft. Although the research did not focus on fear, several of them appear in the findings, such as: fear of possible retaliation, fear of social disapproval, and also fear of hierarchy, explained by the typology of the crime.

It is clear for Robinson et al (2012) that the fear of possible retaliation decreases the probability of denouncing a fraudulent scheme, as well as for Wainberg and Perreault (2016), in which they add the fact that the detailed description of the protective measures inserted in the whistleblowing channel can have the opposite effect to the desired one, increasing the fear of the whistleblower and discouraging the whistleblowing. In the Toshiba case, for example, cultural aspects of unquestioning obedience also meant that executives had greater freedom to carry out accounting fraud due to the fear of employees to report it (Caplan, Dutta & Marcinko, 2019).

H₂: Fear has an effect (inhibitor or motivator) on the subject's willingness to report without having participated in the fraudulent scheme (whistleblow).

2.4 Plea bargaining and fear

Aware of the peculiar characteristics of corporate financial crimes, especially with regard to offenders (top management of companies, public agents and others who occupy positions of power), the difficulties of monitoring operations in an increasingly complex and agile environment, the challenge of tracking resources and agents in multiple jurisdictions governed by different legal systems and the lack of physical, technological and human resources of the State; several countries have adopted the plea bargain (Garcia, 1996; Bittar, 2011; Nucci, 2015; Galvin & Simpson, 2019).

However, there is no consensus regarding its adoption. Despite the alleged benefits of plea bargaining – such as greater agility in detecting the crime and obtaining evidence, the possibility of reaching “big offenders” normally shielded by the position of power they occupy and the recovery of substantial resources for the public coffers (cases of corruption, for example) and/or for the injured companies – moral questions about the “criminal reward”, penalty dosimetry, possible stimulus of criminality in the face of the possibility of plea bargaining and leniency agreements, expansion of social inequality, among others, has been an object of concern by academics and regulators (Romero, 2003; McBarnet, 2006; Garoupa & Stephen, 2008; Givati, 2011; Fonseca, Tabak, & Aguiar, 2015; Zysman-Quirós, 2019; Korejo, Rajamanickam, Said, & Korejo, 2022; Johnson, 2022).

As in the previous scenarios, fear can also affect the individual's decision to make a plea bargain. However, the fact that the individual participated in the fraud and/or criminal organization puts the perception of risk (and therefore fear) in a different position than the whistleblower. The fear of repression (loss of job, status, benefits, etc.), latent in whistleblowing, seems to be overshadowed by the fear of punishment, punishment coming mainly from the State, with power to impose pecuniary sanctions and, mainly, to deprive him of liberty and restrict rights that are normally expensive to humans. The frequent association between fear and punishment deserves reflection, far from consensus among researchers (Foucault, 1996; Hobbes, 1992, 2003). At work, punishment can be seen as a mechanism of oppression (as in slavery) that paralyzes, inhibits or even provokes revolt in the individual, no longer appropriate to modern relationships; on the other hand, punishment, effective or even feared in abstracto, can be a strong motivator of behavior in the expected direction within the organization (Riezler, 1944; Applebaum; Bregman & Moroz, 1998).

A relevant temporal issue, however, can also differentiate the fears in the scenario of participation in fraud from those in the case of whistle blowing. If there is fear of punishment right before committing fraud, it very likely becomes more pronounced close to the award-winning period, when the fear of the rule in abstracto materializes. In other words, when seeing accomplices arrested, evidence being presented by the authorities, arrests decreed, fear takes on different contours. In this scenario, there is the third research hypothesis:

H₃: Fear has an effect (inhibiting or motivating) on the subject's willingness to carry out the plea bargain.

3 Methodological Procedures

It is characterized as a research in the area of behavioral accounting that aims to investigate human behavior in the execution of their tasks (Cozby & Bates, 2011).

3.1 Data collection - subjects and research instrument

The strategy for data collection was a survey and for this purpose a research instrument was developed based on previous studies (see section 2 and Appendix 1) on accounting choices, fraud, whistleblowing and emotions. Composed of four sections, the instrument covered: i. respondent profile (age, gender, experience and religiosity – control variables); ii. scenario 1 on willingness to participate in fraud; iii. scenario 2 on willingness to whistleblow without participation in fraud; iv. scenario 3 on willingness to report, with participation in fraud and favoritism. The strategy of presenting hypothetical cases is justified because verifying events of this nature in practice is quite unlikely (e.g. Henik, 2008; Clementes & Shawer, 2012).

Scenario 1 considers a fraud event and asks the subject to express his willingness to participate in the fraudulent scheme (dependent variable). Subsequently, they should indicate whether, and to what extent, the social fears presented affected their decision in scenario 1 (independent variables). In scenarios 2, whistleblowing, and 3, plea bargain, the respondent's position on his disposition was also requested, as well as the association with social fears. With the exception of questions associated with the respondents' profile, a 7-point scale ranging from strongly disagree to strongly agree was used. All 332 respondents were exposed to the three scenarios.

To assess the improvement of the research instrument, a pre-test was applied with 18 subjects with adhering profile to those defined for research, which resulted in a general revision to eliminate inconsistencies and improve comprehensibility. For the application of the questionnaire, the research was disseminated in an educational institution for undergraduate and graduate students, inviting only those working in the professional market to participate voluntarily in the study. According to Robinson et al. (2012, p.213) this profile is considered suitable for this type of research because it represents a set of "potential whistleblowers in organizations". As this is a research with subjects, the guidelines of the Plataforma Brasil® were followed, when applicable, including the Informed Consent Form available for signature to the respondents and guarantee of anonymity of the individual results. Additionally, the reliability of the results obtained by collecting data through the Cronbach's Alpha test was attested, which resulted in 0.846.

3.2 Research variables and models

Considering the three research hypotheses, three statistical models were developed, corresponding to the situations described in the scenarios, estimated in linear regression using the ordinary least squares method (OLS): participation in fraud; whistleblowing and plea bargaining.

To test H_1 whether fear has an effect (inhibitor or motivator) on the subject's willingness to participate in the fraudulent scheme, a statistical model described in equation (1) was created.

$$Fraud_i = \alpha + \beta_1 EMPR_i + \beta_2 FRAC_i + \beta_3 STAT_i + \beta_4 COL_i + \beta_5 HIER_{it} + \beta_6 LEAL_i + \beta_7 NORM_i + \beta_8 PRI_i + \beta_9 DESC_i + \beta_{10} BEN_i + \beta_{11} PATR_i + \beta_{12} REPUT_i + \beta_{13} FAM_i + \beta_{14} ID_i + \beta_{15} GEN_i + \beta_{16} EXP_i + \beta_{17} REL_i + u_i \quad (1)$$

To test H_2 if fear has an effect (inhibitor or motivator) on the subject's willingness to report without having participated in the fraudulent scheme (whistleblow), a statistical model described in equation (2) was elaborated.

$$Whist_i = \alpha + \beta_1 VIOL_i + \beta_2 FRAC_i + \beta_3 STAT_i + \beta_4 COL_i + \beta_5 HIER_{it} + \beta_6 LEAL_i + \beta_7 BEN_i + \beta_8 REP_i + \beta_9 FAM_i + \beta_{10} ID_i + \beta_{11} GEN_i + \beta_{12} EXP_i + \beta_{13} REL_i + u_i \quad (2)$$

To test H_3 if fear has an effect (inhibiting or motivating) on the subject's willingness to commit to the awarding of the award, the statistical model described in equation (3) was elaborated.

$$Delpre_i = \alpha + \beta_1 VIOL_i + \beta_2 FRAC_i + \beta_3 STAT_i + \beta_4 COL_i + \beta_5 HIER_{it} + \beta_6 LEAL_i + \beta_7 BEN_i + \beta_8 REP_i + \beta_9 FAM_i + \beta_{10} ID_i + \beta_{11} GEN_i + \beta_{12} EXP_i + \beta_{13} REL_i + u_i \quad (3)$$

Given the number of variables, their qualitative and quantitative description, as well as their theoretical support, can be found in Appendix 1.

4 Analysis of results

4.1 Descriptive statistics

Data collection had the voluntary participation of 350 respondents, however, 18 responses were discarded for being incomplete; which resulted in the use of 95% of the total questionnaires answered, that is, 332 respondents for all scenarios. Next, there are the characteristics of the subjects – age, gender, professional experience and religiosity.

Among the main characteristics of the subjects, a gender distribution stands out, with 51.80% male and 48.20% female. All subjects in the sample indicated having professional experience, with 78% having up to 5 years of professional experience in a business-related area (accounting/administration) and the remaining 22% having 6 or more years of experience. Regarding age, 84% of the sample is under 30 years old. Asked about religiosity, 14.8% consider themselves very religious, 59.70% moderately religious and 25.50% non-religious.

In order to understand the sample distribution in relation to social fears, it was decided to group the scales for simplification purposes only in the presentation of the descriptive analysis: 1-3 social fears irrelevant to the subjects; 4 – undefined social fears for the subjects; and 5-7 social fears relevant to the subjects. This consolidation of responses in the scale, disregarding the '4', descriptive statistics was used in order to synthesize the results, as well as a non-parametric chi-square test (JB test $p\text{-value} < 0.05$), in order to understand the relevance of the social fears variables when tested individually in relation to each of the scenarios mentioned above (Scenario 1: participating in the fraudulent scheme; Scenario 2: Willingness to report the fraudulent scheme without reward; Scenario 3: Willingness to report the fraudulent scheme for reward).

From the descriptive analysis (Table 1), Scenario 1 finds the factors that are not able to minimize individuals participating in a fraud and concern the fear of losing their job (57.23%), fear of professional failure (51.51%), fear of the norm (81.33%), of being arrested (72.89%), of being discovered (62.05%), of losing property (47.89%), of putting one's reputation at risk (65.96%) and disapproval from family and friends (56.60%), aspects that corroborate the result of the chi-square test in which only the EMPR variable – fear of losing your job was not significant.

In Scenario 2, it appears that there are few factors that would lead individuals to report a fraudulent scheme, namely: fear of their physical integrity (65.06%), fear of professional failure (46.39%), fear of putting one's reputation at risk (55.42%) and disapproval from family and friends (47.89%), while the variable fear of being disloyal to the company (65.06%) is significant in the chi-square test, however, observing the result of the descriptive analysis, it would act as a deterrent to denouncing the fraudulent scheme.

The trend observed in Scenario 2 also occurs in Scenario 3, in which there are few factors that would lead individuals to report a fraudulent scheme with the benefits of a plea bargain, namely: fear of their physical integrity (53.92%), fear of putting one's reputation at risk (48.49%) and disapproval from family and friends (54.22%). Regarding the chi-square test, it appears that the significant variable, in addition to REPUT and FAM (also observed in scenario 2), has the variable COL – fear of disapproval by colleagues.

It turns out that the individual test of the variables aims to understand their relevance with regard to the elaboration of the statistical model, given that they must be analyzed together due to the characteristic of the research. In this sense, the next section seeks to test the hypotheses by analyzing the joint effect of social emotions in relation to each of the scenarios.

4.2 Hypothesis Tests

It is worth reminding that in order to test H_1 , H_2 and H_3 , developed in section 1, three models were developed (section 2): a) model 1 – seeks to understand the respondent's willingness to participate in the fraudulent scheme (dependent variable) considering the reaction that he got when participating or not in the fraudulent scheme (types of fear); b) model 2 - seeks to understand the respondent's willingness to denounce the fraudulent scheme in the event that he did not participate (dependent variable) and the elements that would lead him to denounce the referred scheme (types of fear) and c) model 3 - when accepting participating in the fraudulent scheme, we sought to understand the respondent's willingness to report, considering the incentives to reduce prison sentences and fines (dependent variable) and the elements that would lead them to report the referred scheme (types of fear). The dependent variables were controlled by the respondent's profile (age, gender, length of experience and religiosity). Table 2 presents the results of the regressions.

Regarding the willingness to participate in the fraudulent scheme (Scenario 1), fear had an effect on social fears - 'fear of hierarchy', 'fear of losing economic benefits in the organization' (for example, salaries, bonuses, etc.), 'fear of the norm' (in abstracto) and 'fear of jeopardizing one's reputation in the labor market'.

The results of scenario 1 indicate that the individual is more willing to participate in the fraudulent scheme due to two motivating aspects – respect for the hierarchy and the economic benefits generated by this participation, in line with the findings of Bonfim and Silva (2018) in which people in a group, when there is a leader figure, become more prone to make dishonest decisions. On the other hand, the risk to reputation in the labor market and the norm are verified as inhibitors of participation in fraud. Still with regard to fraud inhibitors, the high participation rate of fears regarding the norm (81.33%) and reputation (65%) can be verified in the descriptive statistics (Rosa et al, 2015; Goel & Mazhar, 2019).

The result for 'fear of hierarchy' shows that subjects respect the orders coming from their superiors, which is evidenced in previous research (Pereira, 2006; Murphy & Dacin, 2010; Taylor, 2021), or because some companies sought maintain control of its employees by spreading the culture of fear due to possible retaliation (Robinson et al., 2012; Wainberg & Perreault, 2016), either by the figure of the leader (Bonfim & Silva, 2018) or even by cultural issues of respect the hierarchy as evidenced by Caplan et al. (2019) in the Toshiba case.

Table 1
Relevant social fears for Scenarios 1, 2 and 3

Social Fears	Scenario 1						Scenario 2						Scenario 3					
	Scale			Descriptive stat.		χ^2 (p-value) ¹	Scale			Descriptive stat.		χ^2 (p-value)	Scale			Descriptive stat.		χ^2 (p-value)
	1-3	4	5-7	Average	DP		1-3	4	5-7	Average	DP		1-3	4	5-7	Average	DP	
EMPR	34.34	8.43	57.23	4.54	2.36	2,201 (0.13)												
VIOL							28.01	6.93	65.06	4.91	2.18	0.302 (0.58)	35.24	10.84	53.92	4.52	2.27	0.555 (0.45)
FRAC	38.55	9.94	51.51	4.30	2.30	5,772 (0.01)	35.84	17.77	46.39	4.27	2.13	1.797 (0.18)	46.08	16.57	37.35	3.75	2.18	0.544 (0.46)
STAT	51.81	11.45	36.75	3.60	2.23	27.776 (0.00)	57.53	14.46	28.01	3.26	2.08	0.002 (0.96)	62.95	14.76	22.29	2.99	1.99	0.392 (0.53)
COL	55.72	13.25	31.02	3.34	2.09	16.296 (0.00)	55.42	16.57	28.01	3.29	2.02	0.128 (0.72)	62.65	12.95	24.40	3.04	1.99	7.187 (0.00)
HIER	59.94	11.14	28.92	3.18	2.09	39.405 (0.000)	66.57	12.95	20.48	2.87	1.95	0.011 (0.91)	69.88	11.75	18.37	2.69	1.92	2.636 (0.104)
LEAL	59.04	12.65	28.31	3.25	2.21	11.502 (0.00)	65.06	11.14	23.80	2.97	2.04	7.226 (0.00)	65.36	12.65	21.99	2.86	2.03	0.004 (0.95)
NORM	13.25	5.42	81.33	5.96	1.87	79.733 (0.00)												
PRI	22.29	4.82	72.89	5.44	2.24	53.572 (0.00)												
DESC	29.82	8.13	62.05	4.95	2.34	20.909 (0.00)												
BEN	66.27	11.14	22.59	2.89	2.08	37.159 (0.00)	73.80	10.24	15.96	2.54	1.90	0.726 (0.39)	55.72	12.35	31.93	3.31	2.14	0.069 (0.79)
PATR	41.27	10.84	47.89	4.20	2.49	5.772 (0.016)												
REPUT	23.49	10.54	65.96	5.24	2.16	40.540 (0.00)	33.43	11.14	55.42	4.60	2.20	8.268 (0.00)	38.55	12.95	48.49	4.20	2.22	5.740 (0.017)
FAM	32.80	10.50	56.60	4.73	2.38	33.826 (0.00)	38.86	13.25	47.89	4.18	2.34	10.819 (0.00)	33.13	12.65	54.22	4.49	2.33	4,295 (0.03)

Note: (1) When the expected frequency resulted in 20% or more of categories with expected values lower than 5, χ^2 statistics were used through Monte Carlo Simulation.

Source: Research data (2019)

Table 2

Results of regressions by least ordinary frames (LOS) for scenarios 1, 2 and 3

Dep. Var. – Scenario 1: Willingness to participate in the fraudulent scheme

Dep. Var. – Scenario 2: Willingness to report the scam without reward

Dep. Var. – Scenario 3: Willingness to report the fraudulent scheme for reward

Variable	Scenario 1		Scenario 2		Scenario 3	
	Stat. <i>t</i>	p-value	Stat. <i>t</i>	p-value	Stat. <i>T</i>	p-value
Const.	8,2939	0,0000	6,8791	0,000	9,3701	0,000
EMPR	0,5472	0,5846	-	-	-	-
VIOL	-	-	0,1615	0,8718	-0,4139	0,6792
FRAC	1,1268	0,2607	0,7106	0,4778	0,3979	0,6909
STAT	1,2526	0,2113	-0,8929	0,3725	0,1919	0,8479
COL	-0,2126	0,8318	-0,4265	0,6700	-3,1917***	0,0016
HIER	2,7442***	0,0064	-1,0931	0,2751	-0,9055	0,3659
LEAL	0,1426	0,8866	2,6673***	0,0080	1,2489	0,2126
NORM	-2,9151***	0,0038	-	-	-	-
PRI	-1,5712	0,1171	-	-	-	-
DESC	-0,0028	0,9977	-	-	-	-
BEN	2,8114***	0,0052	0,1489	0,8817	0,6070	0,5442
PATR	-0,2960	0,7674	-	-	-	-
REPUT	-2,2401**	0,0258	0,6508	0,5156	1,7361*	0,0835
FAM	-1,3798	0,1686	1,9414*	0,0531	0,8684	0,3858
ID	-1,4492	0,1483	-0,3184	0,7504	-0,7487	0,4545
GEN	-0,6956	0,4872	0,5187	0,6043	0,8542	0,3936
EXP	-0,9781	0,3288	-0,8496	0,3962	-0,4930	0,6223
REL	0,1554	0,8766	-0,3438	0,7312	0,4872	0,6264
Obs. no.	332		332		332	
F	12,97003		1,9342		2,1660	
F Prob.	0,0000		0,0259		0,0108	
R ²	0,4125		0,0737		0,818	
DW	1,911164		1,8308		1,8917	

Note1: Corrected by White's Matrix for Heteroscedasticity. Non-normality was detected according to the JB test (p-value<0.05), however, the data asymptotically converge to the normal distribution for large samples (n>50), according to Gujarati and Porter (2011). VIF test with values lower than 5 in all variables. Note2:***, ** and * indicate significance at the level of 1%, 5% and 10%, respectively. Note3: EMPR = fear of losing job; VIOL = fear of physical integrity; FRAC = fear of failure; STAT = fear of losing status; COL = fear of disapproval by colleagues; HIER = fear of hierarchy; LOYAL = fear of being disloyal to the company; NORM = fear of the norm; PRI = fear of being arrested; DESC = fear of being found out; BEN = fear of losing economic benefits in the organization; PATR = fear of losing assets; REPUT = fear of jeopardizing reputation in the job market; FAM = fear of disapproval from family and friends.

Source: Research data (2019)

This feature, fear of possible retaliation, which comes under the guise of “respect for hierarchy” can be minimized when you have reporting channels and independent members on the audit committee, as they allow you to generate greater confidence in employees and the organizational environment (Lee & Fargher, 2013; Robinson et al., 2012; Johansson & Carey, 2016). However, one should not overlook the fact that the employee submitted under these conditions may rationalize and remove responsibility for the act (Pereira, 2006; Murphy & Dacin, 2010) failing to make the report (Wainberg & Perreault, 2016; Dinc, Kuzey, Gungormus, & Atalay., 2018).

Such rationalization also explains the positive relationship between participating in the fraudulent scheme and the ‘fear of losing economic benefits in the organization’ (for example, salaries, bonuses etc.) given that the subject considers the relationship between the risk of being found out (variable not significant) and the benefit generated by their participation (Damasio, 2009).

On the other hand, ‘fear of putting their reputation at risk in the job market’ would be the inhibiting factor for the subject not to participate in the fraudulent scheme, indicating that the subjects would consider not participating in the fraud because they fear being disapproved by the social environment in which they are (Pereira, 2006). The results are consistent with previous studies that pointed out these fears as common to professionals in the Brazilian (Freitas & Dantas, 2014) and international (Lombardo, 2015) corporate environment. Corroborating non-participation in fraud is the ‘fear of the norm’ (Goel & Mazhar, 2019). It refers to the perception that legal punishments for acts of this nature contribute to mitigate such situations. The other social fears, as well as the control variables (age, gender, experience and religiosity) were not significant.

When analyzing subjects' willingness to whistleblow, fear had an effect on social fears – with 'fear of being disloyal to the company' (1% significance) and 'fear of disapproval from family and friends' (10% significance), both positive.

The 'fear of being disloyal to the company', similarly to what happened in hypothesis 1, corroborates the research by Henik (2008), who identified loyalty as a motivating factor for whistleblowing in US companies; loyalty not directed towards the managers/executives who participate in the fraud, but towards the institution. Regarding the 'fear of disapproval from family and friends', a likely explanation may be the value attributed to the need for belonging commonly associated, for example, with cultural values of collectivism (Lombardo, 2015; Pereira, 2006).

Finally, regarding the subject's willingness to make a plea bargain, there are the variables 'fear of putting one's reputation at risk in the labor market' (10% significance) and 'fear of disapproval by colleagues' (significance of 1%); the first being a motivating factor and the second an inhibitory factor.

'Fear of putting one's reputation at risk in the labor market' is a factor that contributes to the report, even though the subject has participated in the fraud. One of the explanations for this lies in the fact that executives who engage in corporate fraud do not want to be seen as failures and the fact of denouncing it can contribute to their image (e.g. Lombardo, 2015).

With regard to 'fear of disapproval by colleagues', which had a negative result (inhibitor), it shows that the pressure (e.g. Riahi-Belkaoui & Picur, 2000) exerted by the corporate environment can make the subject not make the complaint, even that for this he gives up benefiting. The other social fears were not significant, nor were the control variables.

This result is also consistent with the need to segregate, as was done here in the variables of social fears, those associated with the existence of the prohibitive legal norm from the others referring to the risk of being discovered and the effective enforcement of the norm. The awareness that the conduct is a criminal offense in the analyzed environment was an inhibitor to the subject's disposition to defraud (see results for the H_1 test); and additionally, in the event that the individual has participated, he envisions the report as an alternative to reduce the consequences of his act, above all, due to his reputation in the labor market (H_3); while "loyalty to the company" and "fear of disapproval from friends and family" are the main inhibitors that, by not participating in the fraud, he will denounce it.

5 Final Considerations

The objective of this research was to investigate the effect – inhibiting or motivating – of 'fear' on the individual's willingness to participate and to denounce corporate fraud. For the purpose of analysis, 'social fears' in an organizational environment were observed. Social fears related to hierarchy, loss of benefits, risk of loss of reputation, disapproval from colleagues, family and friends were significant, as motivators or inhibitors, for behavior in relation to fraud; whether it be their participation or the denunciation – with or without favoritism – at a later time.

It is relevant because it was a pioneering research, in a theme and approach not yet covered by previous studies in the Brazilian context, allowing, among other aspects, the identification of organizational fears associated with the accounting professional's decisions to participate in frauds; as well as those associated with whistleblowing and plea bargaining.

Therefore, it was possible to identify that the individual has as a motivating factor for carrying out corporate fraud the economic benefits arising from this act, an aspect known as one of the components of the rationalization proposed by Cressey (1953) and respect for hierarchy, as happened in concrete cases such as Toshiba's (Caplan et al., 2019). Still in this scenario, it appears that reputation in the labor market and fear of the norm (punishment) are factors that inhibit participation in fraud.

As for the motivating factors for the report, loyalty to the company, fear of family disapproval (without benefits), as well as reputation in the labor market provided that in a scenario that has benefits for the reporting. Finally, there is the fear of disapproval from colleagues as a factor that inhibits the complaint, even in a scenario of award-winning whistleblowing.

The results of this research are useful to law enforcers (for example, judges) as they point out aspects that may aggravate or attenuate the individual's motivations considering the scenarios analyzed here. Also for regulators and law enforcers, the results can help in assessing the effectiveness of the rule and its enforcement (including the institute of plea bargaining), in the socio-political-economic scenario to which preparers of Brazilian financial statements are exposed. In the organizational field, it warns of the need to place the individual at the center of discussions about reporting channels, training, internal control mechanisms and leadership posture, in order to prevent fear from inhibiting denouncements and favoring fraud. As for class bodies and professional associations, the survey contributes to highlight points of attention in the training and monitoring of their members, mainly in the sense of minimizing the negative effect of fear (to favor participation in fraud and inhibit the denouncement) in their choices and ensuring the application of penalties (positive effect of fear), for example.

It should be mentioned that this research was exploratory, given its originality, and its results do not lend themselves to generalizations. Its replication is suggested in a sample with greater geographical

diversity of activity, educational background and seniority of the subjects in the Brazilian context, as well as application in other countries, especially those with a significant volume of transactions with Brazilian partners, enabling a cross-cultural approach.

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Appendix 1 - Description of research variables and theoretical support: models 1, 2 and 3

Abbreviation	Description	Type	References
FRAUD	Ordinal variable of the type (1 to 7) that measures the willingness to participate in the fraud of the individual <i>i</i>	Dependent H ₁	Riahi-Belkaoui and Picur (2000) and Duffield and Grabosky (2001)
WHIST	Ordinal variable of the type (1 to 7) that measures the willingness to denounce the fraud in which he did not participate – without benefit (whistleblowing) – of the individual <i>i</i>	Dependent H ₂	Sampaio and Sobral (2013) and Sousa et al (2013)
DELPRE	Ordinal variable of the type (1 to 7) that measures the willingness to denounce the fraud in which he participated – with benefits (plea bargain) of the individual <i>i</i>	Dependent H ₃	
EMPR	Ordinal variable of type (1 to 7) that measures the fear of losing the job of the individual <i>i</i>	Independent H ₁	Freitas and Dantas (2014) and Pereira (2006)
VIOL	Ordinal variable of the type (1 to 7) that measures the fear of the physical integrity of the individual <i>i</i>	Independent H ₂ and H ₃	Freitas and Dantas (2014)
FRAC	Ordinal variable of the type (1 to 7) that measures the fear of the physical integrity of the individual <i>i</i>	Independent H ₁ , H ₂ and H ₃	Lombardo (2015)
STAT	Ordinal variable of the type (1 to 7) that measures the fear of losing the status of the individual <i>i</i>	Independent H ₁ , H ₂ and H ₃	Freitas and Dantas (2014) and Lombardo (2015)
COL	Ordinal variable of type (1 to 7) that measures fear of disapproval by peers of individual <i>i</i>	Independent H ₁ , H ₂ and H ₃	Ciceri (2004) and Rosa <i>et al.</i> (2015)
HIER	Ordinal variable of type (1 to 7) that measures fear of hierarchy of individual <i>i</i>	Independent H ₁ , H ₂ and H ₃	Pereira (2006)
LEAL	Ordinal variable of the type (1 to 7) that measures the fear of being disloyal to the company of the individual <i>i</i>	Independent H ₁ , H ₂ and H ₃	Henik (2008)
NORM	Ordinal variable of the type (1 to 7) that measures the fear of the norm of the individual <i>i</i>	Independent H ₁	Scott (2015) and Gomes (2015)
PRI	Ordinal variable of the type (1 to 7) that measures the fear of being arrested of the individual <i>i</i>	Independent H ₁	Scott (2015) and Gomes (2015)
DESC	Ordinal variable of the type (1 to 7) that measures the fear of being found out of the individual <i>i</i>	Independent H ₁	Lombardo (2015)
BEN	Ordinal variable of the type (1 to 7) that measures the fear of losing economic benefits in the organization of the individual <i>i</i>	Independent H ₁ , H ₂ and H ₃	Freitas and Dantas (2014) and Lombardo (2015)
PATR	Ordinal variable of the type (1 to 7) that measures the fear of losing the individual's assets <i>i</i>	Independent H ₁	Freitas and Dantas (2014)
REPUT	Ordinal variable of the type (1 to 7) that measures the fear of jeopardizing the reputation in the labor market of the individual <i>i</i>	Independent H ₁ , H ₂ and H ₃	Lombardo (2015)
FAM	Ordinal variable of the type (1 to 7) that measures the fear of disapproval from family and friends of the individual <i>i</i>	Independente H ₁ , H ₂ and H ₃	Lombardo (2015) and Pereira (2006)
ID	Age	Control H ₁ , H ₂ and H ₃	Near and Miceli (1995); Curtis and Taylor (2009) and Gao and Brink (2017)
GEN	Gender	Control H ₁ , H ₂ and H ₃	
EXP	Experience	Control H ₁ , H ₂ and H ₃	
REL	Religiosity	Control H ₁ , H ₂ and H ₃	

NOTES

ACKNOWLEDGMENT

The authors are grateful for the contributions of the editors and reviewers who allowed substantial improvements in the final version of this research. They also thank the participation of Juliana Cristina Milan in the first version of the research.

AUTHORSHIP CONTRIBUTION

Conception and preparation of the manuscript: Weffort, E. J.; Gonçalves, R. S.

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Discussion of results: Gonçalves, R. S.; Weffort, E. J.

Review and approval: Weffort, E. J.; Gonçalves, R. S.

DATASET

The dataset that supports the results of this study is not publicly available.

FINANCING

FECAP – Fundação de Escola de Comércio Álvares Penteado.

CONSENT TO USE IMAGE

Does not apply.

APPROVAL OF THE RESEARCH ETHICS COMMITTEE

Does not apply.

CONFLICT OF INTERESTS

Does not apply.

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PUBLISHER

Federal University of Santa Catarina. Accounting Sciences Course and Postgraduate Program in Accounting. Publication on the [UFSC Journal Portal](#). The ideas expressed in this article are the responsibility of their authors, and do not necessarily represent the opinion of the editors or the university.

EDITORS

José Alonso Borba, Denize Demarche Minatti Ferreira, Carlos Eduardo Facin Lavarda.

HISTORIC

Received on: 06/08/2021 - Peer reviewed on: 18/12/2021 - Reformulated on: 18/02/2022 - Recommended for publication on: 10/11/2022 - Published on: 22/12/2022

** A preprint version of the paper was presented at XLIII EnANPAD, 2019.*