

## The influence of locus of commitment and ethical style on independent auditors' whistleblowing

*A influência do locus de comprometimento e do estilo ético no whistleblowing de auditores independentes*

Lucas Martins Dias Maragno<sup>a</sup> , Nadieli Cordeiro<sup>b</sup> 

<sup>a</sup> Universidade Federal do Rio de Janeiro - Brazil

<sup>b</sup> Universidade Positivo - Brazil

### Keywords

Whistleblower.  
Audit.  
Ethic.

### Abstract

The study aimed to verify the individual factors that affect auditor intention to report a co-worker under conditions of inherently high risk. In order to fulfill the study objective, a data collection instrument in questionnaire format was sent to auditors from a Big Four audit firm. The questionnaire contained a hypothetical scenario with questions to measure locus of commitment, ethical style, and demographic variables. The research sample consisted of 85 responses. The empirical evidence indicated that the ethical style positively and statistically influences the auditors' intention to report a co-worker, as well as the fact that they are female. Also, the locus of commitment did not show significance to influence auditor intention. These results are relevant and can contribute to the auditor's ethical training process and assist in the development of internal policies that emphasize ethical conduct. Therefore, the evidence is important for regulators, capital markets and auditing firms.

### Palavras-chave

Whistleblower.  
Auditoria.  
Ética.

### Resumo

O estudo objetivou verificar as características individuais que afetam a intenção dos auditores em reportar um colega de trabalho em condições de alto risco inerente. Para cumprir o objetivo da pesquisa, um instrumento de coleta de dados em formato de questionário foi enviado para auditores de uma empresa de auditoria big four. O questionário continha um cenário hipotético com questões para mensurar o locus de comprometimento, o estilo ético e as variáveis demográficas. A amostra de pesquisa consistiu em 85 auditores. As evidências empíricas indicaram que o estilo ético influencia de maneira positiva e estatisticamente significativa a intenção dos auditores em reportar um colega de trabalho, assim como o fato dele ser do sexo feminino. Enquanto, o locus de comprometimento não demonstrou significância para influenciar a intenção dos auditores. Os resultados se mostram relevantes e podem contribuir no processo de formação ética do auditor e auxiliar no desenvolvimento de políticas internas que ressaltem a conduta ética. Portanto, as evidências são importantes para os reguladores, o mercado de capitais e as firmas de auditoria.

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### Practical implications

This study's findings contribute to auditors' day-to-day matters in which ethical conduct is essential to key deliverables. This, in order to meet the requirements of independence, ethics, and integrity under auditing rules.

## 1 INTRODUCTION

For managers, accounting professionals and other stakeholders, concerns around corporate fraud have come to the forefront in recent years, manifesting in increasing attention to the development of detection and prevention measures. The 2020 report from the Association of Certified Fraud Examiners<sup>§</sup> (ACFE) indicates that whistleblowing is the most effective tool in fraud detection (43%), followed by internal auditing (15%) and management review (12%). Part of its effectiveness is due to its timeliness: companies with whistleblowing channels generally take less time to detect wrongdoing and spend lesser financial resources on investigating the same (Association of Certified Fraud Examiners, 2020).

On the one hand, the literature indicates that anonymous reporting, fraud severity, the perception of duty to report and ethical leadership contribute to the will to report (Latan et al., 2012; Robinson et al., 2012; Silva & Sousa, 2017). Alternately, perceptions around the cost of speaking up, the possibility of retaliation, and proximity with peers reduce the will to report (Taylor & Curtis, 2010; Dalton & Radtke, 2013). With that in mind, studies on the topic in Brazil have analyzed whistleblower intention as observed among accounting professionals (Viera et al., 2015; Silva & Sousa, 2017). There exists a gap in understanding around this phenomenon when present in other areas of the profession, for example, in auditing (Fajardo & Cardoso, 2014).

The auditing professional is witness to the day-to-day activities of a variety of companies across engagements, which often presents challenging situations born of the client relationship: navigating internal controls deficiencies, managing confidential and privileged financial information, and aggressive accounting policies, to name a few. Further, proximity to clients can be advantageous in identifying employment opportunities, especially as the auditor's growing familiarity with their business pose benefits to the client. According to Brazilian Accounting Rules PG 100 and PA 290 (R2), these incentives are understood to influence auditor behavior and, even when intentions are legitimate in fact, they stand to compromise independence in thought or appearance, leading to threats from self-review, familiarity, and defense of client interests.

Consequently, loss of independence can be a key ingredient in the evolution of fraud schemes – Enron and Worldcom (Gantz, 2013), among others, illustrate the considerable consequences imposed by regulators (Durão & Junior, 2016; Coin, 2020). On top of this, neglect on part of an auditor to report wrongdoing by peers can yield opportunities for accounting manipulation and fraud (Condé, 2013). Despite only limited research being available, findings have suggested that auditors tend to be reluctant to speak out against peers (Kaplan, 1995; Kaplan & Whitecotton, 2001). Regarding the Brazilian context specifically, Fonseca (2020) found that 46% of professionals either have taken part in irregularities or have abstained from reporting peers who have, while 48% would manipulate, or look the other way on manipulation by others, in financial reporting on personal benefits paid for by the company.

Individual factors such as the auditor's relationship with the client or peers (i.e., locus of commitment) (Kaplan & Whitecotton, 2001), personal stance on ethical matters (i.e., ethical style) (Curtis & Taylor, 2009), age (Mansor et al., 2020), gender (Seifer et al., 2010) and work experience (Mansor et al., 2020) influence the decision to report wrongdoing. Taking these as its base, this study seeks to broach the following problem: What is the influence of individual characteristics on the will to report peers in inherently high-risk situations? Toward that aim, we seek to build an understanding of which specific traits bear on the decision to whistleblow among auditing professionals in Brazil. From this, the goal of the study emerges: To identify the influence of individual characteristics on the will to report peers in inherently high-risk situations.

This study contributes to the literature in various ways. Firstly, greater understanding on the concept of whistleblowing in independent auditing has direct implications for the profession, as it addresses a widespread ethical dilemma in the profession, one which is understood to be fundamental to the purposes it serves. Findings obtained build on those from Silva and Souza (2017) in terms of the availability and nature of reporting channels. Additionally, this study contributes to the growing body of knowledge concerning Brazil specifically, particularly as it assesses the characteristics of individuals working in the profession in the country, including ethical style, gender, and social desirability bias. Lastly, our results contribute to the evolution of “Whistleblower theory” in terms of decision-making around reporting depending on the personal characteristics of the whistleblower (Curtis and Taylor, 2009).

## 2 LITERATURE REVIEW

### 2.1 Auditor independence and whistleblowing

The external audit profession serves as a tool for validating financial reporting produced by organizations, casting light on their economic and financial health, as well as a means for preventing material distortions and fraud in the process (Batista et al., 2014). In this sense, though the primary goal of the audit is not to combat fraud directly, when procedures applied result in an assessment of the strength of internal controls, they serve as a preventative measure against error and fraud (Cunha & Beuren, 2004).

Over the course of the engagement, the auditor must maintain impartiality in fact, alongside in appearance, by way of a strictly professional, independent, and balanced relationship with the client (Franco & Reis, 2004). Auditor independence is a critical component of the credibility and reliability of the results obtained in fieldwork (Morás et al., 2019), and professional skepticism is central to inquisitive mindset necessary for the right questions to be asked, a critical-thinking approach to findings, and the constant awareness of the possibility of misstatements due to fraud or error.

When auditor independence is impaired, so, too, is the product of the engagement. The opinion included in the auditor's report may lose credibility and reliability, on part of users of the financial statements, leaving the supposed impartiality of the findings at odds with the means under which they were obtained. There is a substantial body of cases in which the loss of audit firm independence resulted in legal action and the imposition of penalties. In 2016, Deloitte was fined \$8M by the Public Company Accounting Oversight Board (PCAOB) stemming from misstatements on the balance sheet of Gol S.A. (Durão & Junior, 2016). PricewaterhouseCoopers (PWC) was subject to penalties of \$7.9M following accusations of inadequate professional conduct and violations of auditor independence rules (Coin, 2020). Once more, in 2020, Deloitte was fined \$19.42M by the Financial Reporting Council (FRC) for not acting with due integrity, objectivity, or professional skepticism while engaged to provide attestation services for the firm Autonomy (Kinder, 2020).

Toward that end, Brazilian Accounting Rules PA (R2) and PG 100 (R1) aid practitioners in defining the achievement and maintenance of auditor independence (Morás et al., 2019). Similar concepts are outlined in Big Four firms' codes of conduct, for example, PWC (2017, p. 9) includes "we recognize that independence, including the appearance of independence, is the core of objectivity", while Deloitte (2020, p. 32) states that "all professionals at the firm must act with absolute independence in client matters, avoiding situations that, in the eyes of third parties, might be perceived as a threat to independence on part of staff or the firm".

In light of this, the loss of auditor independence due to diminished internal controls, procedures and policies, along with risk management, together contribute to an environment susceptible to fraud and unethical behavior (Moura, 2007). With this in mind, it is necessary to implement preventative measures within audit firms, as well.

From an auditing perspective, "Big Four" companies each have their own internal reporting channels: PWC's "Ethics Channel", KPMG's "International Hotline", EY's "Direct Ethics Line", and Deloitte's "Reports Channel". EY's code of ethics states that reports can be related to illegal or unethical behavior, violations of professional rules, or inconsistencies with the firm's code of conduct. PWC, for its part, poses the following question to define the scope of questionable events in its code of conduct: "Are you aware of unethical or illicit behavior on part of other people (for example, colleagues, clients, vendors, or others)?"

Thus, in order to anticipate individual characteristics of independent auditors that explain the will to report unethical behavior on part of their peers, the following research hypotheses are founded on a primary focus toward the locus of commitment and on ethical style.

## **2.2 Influence of individual characteristics hypothesis**

### **2.2.1 Locus of commitment**

The locus of commitment is directly related to the identification and involvement of the employee in the organization, the nature of his/her dedication to its beliefs, values and goals, and the will to apply greater effort in name of the organization (Taylor & Curtis, 2010).

A similar relationship exists between the locus of commitment and solidarity with coworkers, evident in feelings of loyalty or personal responsibility, and the degree to which one feels called to help others in trying situations (Curtis & Taylor, 2009). Curtis and Taylor (2010) defined the locus of commitment as the direction chosen by employees when they face a dilemma that puts the organization's interests against those of their peers.

Under such circumstances, employees have three courses of action to choose from: (i) resign from the

organization, (ii) report the incident, or (iii) keep silent (Mesmer-Magnus & Viswesvaran, 2005). Despite this, Taylor & Curtis (2010) explain that the whistleblower must weigh the decision to point out fraud or other unethical behavior against the perceived resulting damage to the company or peer. Empirical findings from that study indicate that individuals with a stronger commitment to the company tend to show a stronger will to whistleblow against peers; however, Fajardo and Cardoso (2014) did not back those findings, having not observed a significant effect between these factors within a sample of 162 accounting professionals.

Under the assumption that auditing professionals experience a bond with the audit firm stemming from training, alignment with the ultimate goal of factual representation, and the company's reputation, it stands to reason that they would be more inclined to report wrongdoing. Similarly, professionals with stronger ties and relationships with colleagues and their team would seem less likely to report against them. From this, the following study hypothesis was formed:

H<sub>1</sub>: Locus of commitment toward the organization (colleague) is positively (negatively) associated with the will to report on a coworker.

### 2.2.2 Ethical style

Ethical style is understood as the individual's capacity to assess ethical dilemmas and questions of morality. The literature explains that ethics influences personal decision-making, as a stronger sense of right and wrong supports individual judgment. This applies to whistleblowing in that belief in the role of reporting wrongdoing as an ethical matter leads to a greater likelihood to do so (Chiu, 2003, Curtis & Taylor, 2009).

White (2007) classifies ethical styles as either caring or judging. While caring individuals approach ethical dilemmas with the goal to reduce damage or pain caused by the situation in question, the judging style is guided by rules, objectivity, and consistency, leading to a stronger likelihood to report wrongdoing. Curtis and Taylor (2009) presented empirical evidence illustrating the positive association between ethical style and the will to blow the whistle among a sample of 122 American auditing professionals. In fact, the AICPA code of ethics prohibits auditors acting in the public interest from considering employment opportunities at a client during the term of the engagement, in order to minimize concerns on part of the users of the financial statements that independence may be impaired, whether in fact or appearance (Kaplan & Whitecotton, 2001).

Further, Sampaio and Sobral (2013) explained that ethical judgement on matters just as wrongdoing can lead an individual to adopt a more favorable attitude toward reporting unethical conduct. In this way, auditors possessing a judging ethical style that view a given situation as unethical will be more likely to report potentially unethical behavior than those leaning more toward the caring end. From this, the second research hypothesis was developed.

H<sub>2</sub>: Judging ethical style (caring) is positively (negatively) associated with the auditor will to report wrongdoing on part of colleagues.

## 3 METHODOLOGICAL PROCEDURES

### 3.1 Research instrument and variables

Data collection was carried out via a survey instrument in questionnaire format, applied to professionals working at a Big Four firm in October of 2020. This was done online, using Google Forms, with the link shared with the firm over email.

Firstly, the study instrument provides participants with the consent form. Following this, participants were presented with a hypothetical situation adapted from Kaplan and Whitecotton (2001), which has been validated and approved by the Talent and Risk departments of the Big Four firm. The case deals with an auditor (Pedro) who receives an offer for employment at a client (Master Tec S/A) and is weighing the options of accepting it or remaining in his current role. This dilemma is seen through the eyes of a colleague (Miguel). The situation is characterized by inherently high risk, in accordance with Kaplan and Whitecotton (2001), given the presence of material misstatements, deficiencies in internal controls, and aggressive accounting policies. Later, the instrument applies questions designed to verify participant attention to the facts of the case, such as (i) What is the name of the audit client and (ii) To which auditor was the employment offer extended?

Subsequently, participants responded on a scale of 1 to 7, (iii) What is the probability of Miguel reporting

to his superior that Pedro has a job offer from Empresa Master Tec S/A? This question was posed in the third person with the goal of reducing social desirability bias, found to be common in this type of study (Robinson et al., 2012; Berger et al., 2017). Additionally, the instrument contained a group of questions designed to construct a participant profile based on individual traits of interest, namely, the locus of commitment (Lcomp) and ethical style (Ethic) (Table 1).

**Table 1.** Study variables

Variables	Data Collection	Measurement	Range	References
<b>Dependents</b>				
<i>Report (third person)</i>	What is the probability of Miguel reporting to his superior that Pedro has a job offer from Empresa Master Tec S/A?	Scale	1 - 7	Robinson et al. (2012) and Berger et al. (2017)
<i>Report (first person)</i>	If you were in the same situation, what would be the probability of reporting the situation exposed to your superior?	Scale	1 - 7	Robinson et al. (2012) and Berger et al. (2017)
<b>Independents</b>				
Locus of Commitment (Lcomp)	3 questions with responses from 1 - 5	Sum of the three answers to the questions	5 - 15	Taylor and Curtis (2010)
Ethical Style (Ethic)	8 questions with binary option. For judging answer 1, otherwise 0 (caring)	Sum of the eight answers to the questions	0 - 8	Chiu (2003) and Curtis and Taylor (2009)
<b>Controls</b>				
Age (Age)	1 question of the questionnaire	Age of participants in years		Silva and Souza (2017) and Mansor et al. (2020)
Gender (Gender)	1 question of the questionnaire	Female; Male; Rather not answer		Seifert et al. (2010) and Silva and Souza (2017)
Experience (Exp)	1 question of the questionnaire	Experience in months		Silva and Souza (2017) and Mansor et al. (2020)

Source: prepared by the authors.

Locus of Commitment (Lcomp) was measured with a research instrument consisting of three questions, with possible responses from 1 to 5, with lower values indicating a stronger commitment to peers, while higher ones, to the firm. The variable Ethic was assessed by way of an eight-question instrument adapted from Curtis & Taylor (2009), with higher values indicating a judging style and lower numbers pointing to a caring style.

Lastly, given the goal of defining the participant profile, demographic data including age, gender, education level, work experience, rank, auditor (or not), and the incidence of unethical or questionable behavior was collected.

### 3.2 Participant selection

The study sample consisted of a group of Big Four auditors. The research instrument gained response from 91 participants. Six respondents failed to provide satisfactory responses on attendance in the online survey

and were thus omitted from the sample. Attendance questions are key when applying online surveys, given the risk of participant distraction during the application of the questionnaire or the possibility that key details of the case were not retained.

The composition of the final sample, following the exclusion of participants that failed the attention requirement, was 85 auditing professionals. This was assessed with a confidence level of 95% and observed sampling error of 10%. The number of respondents, sampling error, and margin of error are consistent with related previous studies (Kaplan & Whitecotton, 2001; Curtis & Taylor, 2009; Faro et al., 2010).

### 3.3 Research method

Initial analysis was performed through descriptive statistics and, subsequently, Spearman correlation analysis and covariance analysis (ANCOVA) were applied, as well. ANCOVA can be understood as an extension of variance analysis (ANOVA), characterized by the inclusion of independent quantitative variables (covariables). For its part, ANCOVA requires the same assumptions as ANOVA, such as normality of residuals and homogeneity in variance (Cohen, 2013).

Additionally, the robustness test involved in the tobit regression model, alternately known as the censored regression model utilizing the Maximum Likelihood Estimation, following the classical linear model hypothesis -alternatively, the normal distribution model, homoscedastic, with a conditional linear average (Gujarati & Porter, 2011).

## 4 ANALYSIS OF RESULTS

### 4.1 Descriptive analysis

Table 2 presents a set of individual characteristics that illustrate the participant profile.

**Table 2.** Demographic information

	Frequency	Percentage (%)
<b>Age (years)</b>		
Mean	26	-
Standard deviation	3.38	-
<b>Gender</b>		
Female	39	42.86%
Male	51	56.04%
Rather not answer	1	1.10%
<b>Education level</b>		
High school graduate	0	0.00%
Incomplete higher education	25	27.47%
Higher education graduate	50	54.95%
Postgraduate	16	17.58%
<b>Experience (months)</b>		
Mean	36	-
Standard deviation	28.8	-
<b>Level</b>		
Trainee	19	20.88%
Associate	29	31.87%
Senior	27	29.67%
Manager	16	17.58%

**Table 2.** Demographic information

Auditor		
Yes	86	94.51%
No	5	5.49%
Have you ever witnessed a situation considered unethical or a questionable act?		
Yes	46	50.55%
No	45	49.45%

Source: prepared by the authors.

These findings suggest participants were, on average, 26 years old, with a standard deviation of 3.38 years. The sample was 56.04% male, which contrasts with previous studies on the profession that have observed an even stronger majority of men (Morás, et al., 2019; Degenhart & Cunha, 2020). All participants had a minimum education level of high school, while a narrow majority (54.95%) had completed an undergraduate degree. A balanced distribution across ranks (Level) was observed, with the greatest concentration in at the associate level (31.87%). In total, 86 of the participants surveyed (94.51%) are auditors and they have, on average, 36 months of experience in the field.

Responses concerning having witnessed unethical or questionable circumstances were near-even in responses, with 46 participants (50.55%) replying in the affirmative and 45 (49.45%) not having experienced these. In other words, approximately half of the auditing professionals surveyed have witnessed questionable actions or situations considered unethical in the past.

#### 4.2 Statistical analyses

Table 3 displays descriptive statistics observed between study variables applied to the ANCOVA and the mean, standard deviation, and minimum/maximum values observed.

**Table 3.** Descriptive statistics

Variables	<i>N</i>	Mean	Standard Deviation	Minimum	Maximum
<i>Report</i>	85	4.953	1.550	1	7
<i>Lcomp</i>	85	10.271	2.723	3	15
<i>Ethic</i>	85	5.941	1.276	2	8
<i>Age</i>	85	25.718	3.376	20	36
<i>Gender</i>	85	0.424	0.497	0	1
<i>Exp</i>	85	36.176	28.799	1	123

Notes: Report = reporting likelihood, Lcomp = locus of commitment, Ethic = ethical style, Age = participant age in years, Gender = if female 1, otherwise 0, Exp = experience in months.

Source: prepared by the authors.

The dependent variable Report returned an average of 4.95, with standard deviation of 1.55, which suggests the auditors are more likely to report than not, this being the key focus of the hypothetical scenario in play. The variable Lcomp showed an average of 10.27, standard deviation 2.72, ranging from 3 to 15. From this, we gather that, on average, the participants display a stronger commitment to the firm than to their peers. The variable Ethic, at an average of 5.94 and standard deviation of 1.27, ranged from 2 to 8, suggesting an ethical style leaning more toward judging than caring. It merits note that the judging style is in many ways fundamental to carrying out the audit profession, given its strong emphasis on rules, objectivity, and consistency in decision-making.

Table 4 presents the Spearman correlation values obtained, followed by the statistical significance of the study variables in terms of ANCOVA modeling and tobit regression methods.

**Table 4.** Spearman correlation

	<i>Report</i>	<i>Lcomp</i>	<i>Ethic</i>	<i>Age</i>	<i>Gender</i>	<i>Exp</i>
<i>Report</i>	1					
<i>Lcomp</i>	0.156 (0.154)	1				
<i>Ethic</i>	0.146 (0.184)	0.093 (0.396)	1			
<i>Age</i>	-0.036 (0.740)	-0.121 (0.269)	0.228 (0.035)	1		
<i>Gender</i>	0.146 (0.182)	-0.081 (0.460)	-0.235 (0.030)	-0.135 (0.219)	1	
<i>Exp</i>	-0.114 (0.300)	-0.082 (0.456)	0.216 (0.047)	0.743 (0.000)	-0.090 (0.413)	1

Notes: Report = reporting likelihood, Lcomp = locus of commitment, Ethic = ethical style, Age = participant age in years, Gender = if female 1, otherwise 0, Exp = experience in months.

Statistical significance in parentheses.

Source: prepared by the authors.

These findings indicate that the will to report is positively correlated with the locus of commitment, ethical style, and gender. Alternatively, it is negatively correlated with age and experience. It merits mention that, in order to carry out the ANCOVA model, an assumption exists that the linearity between covariables and highly correlated variables (above 0.80) can impede greater precision in estimating model parameters (Gujarati & Porter, 2011). Results obtained from Spearman correlation testing suggest a strong relationship between the variables age and experience (0.743), which may indicate multicollinearity.

From there, ANCOVA analysis was applied, in order to identify the effects of individual characteristics on the will to report peer auditors under conditions of inherently high risk. Table 5 displays the results of the ANCOVA model, which included the variables of interest Lcomp and Ethic along with the control variables, Age, Gender and Exp.

**Table 5.** ANCOVA model

	<i>Partial SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Prob &gt; F</i>
Model	19.762	5.000	3.952	1.720	0.141
<i>Lcomp</i>	3.110	1.000	3.110	1.350	0.249
<i>Ethic</i>	9.130**	1.000	9.130	3.960	0.050
<i>Age</i>	0.001	1.000	0.001	0.000	0.988
<i>Gender</i>	6.892*	1.000	6.892	2.990	0.088
<i>Exp</i>	1.546	1.000	1.546	0.670	0.415
<i>Residual</i>	182.050	79.000	2.304		
Total	201.812	84.000	2.403		

Notes: Lcomp = locus of commitment, Ethic = ethical style, Age = participant age in years, Gender = if female 1, otherwise 0, Exp = experience in months.

$R^2 = 0.097$  e  $R^2$  adjusted = 0.040.

Jarque-Bera's normality test = 2.84 and Chi2 = 0.2417.

Breusch-Pagan/Cook-Weisberg test for heteroscedasticity, chi2 = 0.19 and Prob > chi2 = 0.664.

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10, respectively.

Source: prepared by the authors.

These findings indicate that the variable Lcomp did not bear statistical significance. As a result, the study's



H1 was not confirmed. In contrast, the variable Ethic presented a positive, statistically significant association ( $F(1, 84) = 3.96, p < 0.050$ ), thus confirming H2. This result suggests that a stronger tendency toward a judging ethical study yields a greater will to report, under the circumstances of the hypothetical scenario in play. Further, this corroborates and reinforces the findings of Curtis and Taylor (2009), which found statistically significant results at only the 10% confidence level.

The variable Gender showed a positive and statistically significant association ( $F(1, 84) = 2.99, p < 0.088$ ), which can be interpreted as a greater likelihood to report among women than men. This finding conflicts with those from Mesmer-Magnus and Viswesvaran (2005), while corroborating Seifert et al. (2010). Similarly, Taylor and Curtis (2013) explained that gender may lead to these types of differences, as women tend to be more sensitive to challenging ethical situations than male counterparts.

Results were assessed with the dependent variable in the first person, which did not return significant results. Additionally, Robinson et al. (2012) suggested combining dependent variables in third and first person based on the average. Upon applying this approach, the model's variables still did not prove significant.

Lastly, it merits mention that the results obtained were tested excluding the Experience (Exp) variable in light of its strong correlation with Age. That being said, the statistical significance of the variables Ethic and Gender was not impeded. Thus, the study results remain robust despite the presence of multicollinearity indicators.

### 4.3 Robustness test

Table 6 displays the results of the estimated model by way of tobit regression, in order to carry out the robustness test.

**Table 6.** Results of tobit regression model

$Report_i = \beta_0 + \beta_1 Lcomp_i + \beta_2 Ethic_i + \beta_3 Age_i + \beta_4 Gender_i + \beta_5 Exp_i + \varepsilon_i$				
Variables	Coefficient	Standard Error	t value	p value
Constant	1.195	2.578	0.46	0.644
Lcomp	0.101	0.078	1.28	0.204
Ethic	0.374**	0.172	2.17	0.033
Age	0.032	0.096	0.33	0.741
Gender	0.783*	0.440	1.78	0.079
Exp	-0.012	0.011	-1.05	0.296

Notes: Lcomp = locus of commitment, Ethic = ethical style, Age = participant age in years, Gender = if female 1, otherwise 0, Exp = experience in months.

N: 85; Log likelihood: -152.495;  $\chi^2$ : 9.28,  $p = 0.0984$ ; Pseudo R<sup>2</sup>: 0.0295

\*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.10$ , respectively.

Source: prepared by the authors.

These findings indicate that the variable Ethic ( $\beta = 0.374, p < 0.033$ ) is significantly and positively associated with auditor willingness to report on coworkers. Similarly, the variable Gender ( $\beta = 0.783, p < 0.079$ ) is significantly and positively associated with auditor intention. These findings confirm the research hypothesis H2.

Further, the tobit model applied to the dependent variable Report as measured in the first person did not return a significant association between the independent and dependent variables analyzed. However, when taking the approach of Robinson et al. (2012), blending the first- and third-person dependent variable based on average, a statistically significant, positive association emerged for the variable Ethic ( $\beta = 0.234, p < 0.097$ ) alone.

## 5 DISCUSSION

The results outlined above indicate that the will to whistleblow on part of auditors is significantly and positively associated with ethical style. This was evidenced by both ANCOVA modeling and robustness testing

under the tobit regression model, both when assessing intentions from the third-person point of view. These results confirmed the study's H2, implying that in situations of inherently high risk, personal traits concerning ethics have direct bearing on the decision to report on peers. This underscores the importance of a better understanding on intentions when applied to sensitive situations, including relationships with one's employer and peers, as well as the nature of the auditing profession and its proximity to clients. This has practical implications, given the tendency of auditors to leave their firms in favor of more balanced schedules or competitive pay in the industry setting. On the other hand, the technical knowledge gained through auditing experience make practitioners desirable to the private sector. This, given the value of in-depth experience with accounting standards under CPC, IFRS, and FASB, tax regulation and risk management, and soft skills including teamwork and project management, all of which are present in seasoned auditing professionals.

Further, the study obtained findings concerning the variable Gender that suggest a significant, positive association between it and the will to report wrongdoing. Analysis indicated that women are more likely to report on their peers, which stands to contribute to the literature on gender and its effect on matters within the profession. In particular, among the famous whistleblowers featured on the cover of Time, Cynthia Cooper, prior to overseeing internal auditing at Enron, worked at two Big Four firms. Additionally, these findings have bearing on the lack of consensus in the existing literature (Mesmer-Magnus & Viswesvaran, 2005; Seifert et al., 2010). As a possible explanation, Hoffman (1998) pointed out that women have been observed to behave more ethically in certain situations, for example, in the case of potential firing due to political lobbying done to save the company from non-compliance issues or taking a managerial position in a company knowing its product is hazardous to the health of its users.

Lastly, differences observed in the results concerning the dependent variable as measured in the first and third person highlight the need for further studies in the Brazilian context that could provide additional insight into social desirability bias and its influence on whistleblower decision-making. It merits mention that various studies on ethical behavior make use of hypothetical scenarios and, with that in mind, future studies must control for the effect of the same. Along these lines, the unmitigated effect of social desirability on studies utilizing scenarios and ethical dilemmas (for example, whistleblowing) could lead to problems in terms of both internal validity and the reliability of results, thus compromising the value of findings obtained.

## 6 CONCLUSIONS

This study identified individual characteristics that affected the will, on part of auditors, to report on peers when they receive employment offers from clients possessing internal controls deficiencies and aggressive accounting policies. Toward that aim, the study carried out a survey of 85 professionals at a Big Four firm, who first completed a consent form and then provided responses concerning a hypothetical situation in which a colleague had received an offer from a client. This assessed independent variables based on personal traits.

Initially, the results of descriptive analysis indicated that the participants, on average, feel greater commitment to the company than to their colleagues. This may be a reflection of organizational culture, reputation, or training efforts on part of Big Four firms (Marques et al., 2018; Degenhart & Cunha, 2020). Nevertheless, statistical modeling showed that this individual trait did not significantly affect the decision to blow the whistle on a peer. Another finding highlighted that the judging ethical style is more likely to report on goings-on in the auditing environment than the caring type. From this, the judging profile supports the key functions of the audit role, supporting objectivity and professional skepticism congruent with applicable professional standards. This ties in with Morás et al. (2019), which posited that consistent application of independence in the day-to-day of auditing requires that practitioners be objective and impartial in their actions and assessments.

Further, this study gathered evidence on the phenomenon of whistleblowing within the auditing profession and provided findings to strengthen company policies and professional development, particularly within the realm of policy set in codes of conduct and ethics across client engagements. Managers can employ hypothetical scenarios such as the one applied in our survey to illustrate unethical situations, providing direction on appropriate actions to be taken, as well as educate on the importance of reporting channels and emphasize the importance of non-retaliation.

Naturally, the study was limited by several factors. The sample was composed of 85 responses from professionals working in Big Four firms. Further studies might utilize social networks (e.g., LinkedIn) to obtain greater response rates. That said, the need to guarantee confidentiality and anonymity in participant response remains a factor meriting consideration. Similarly, results obtained are limited to the specific hypothetical scenario outlined in the study; in order to augment external validity, these circumstances might not be applied to all audit

firms. Lastly, the research instrument was limited in its assessment of participant intentions, in place of action taken substantiating those aims.

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## SUPPLEMENTARY MATERIAL – Survey

### INTENT TO REPORT DAILY SITUATIONS

#### INTRODUCTION

You are invited to participate in a research study conducted by XXX. The purpose of this research is to investigate individual and situational characteristics regarding the intention to report daily situations.

Your participation is entirely voluntary. There will be approximately XXX total participants in this research.

#### PROCEDURES

If you agree to participate, you will be presented a hypothetical scenario. The usefulness and outcome of the study will depend upon the honesty and care with which you answer the questions.

Carefully read the information below:

- **Time:** This study takes approximately 10 minutes to complete.
- **Risks:** This is a minimal risk research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities. The foreseeable risks or discomforts include emotional distress/discomfort. In order to minimize those risks and discomforts, the researchers will collect and maintain data in a manner to assure confidentiality.
- **Benefits:** Although you do not directly benefit from this study, it was developed to better understand the intention to report everyday situations. Also, benefits to society include a better understanding of human motivation.
- **Confidentiality:** The researchers will make every effort to ensure that the information you provide as part of this study remains confidential. Your identity will not be revealed in any publications, presentations, or reports resulting from this research study. We will collect your information through the Google Forms platform. Online activities always carry a risk of a data breach, but we will use systems and processes that minimize breach opportunities.

Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time by closing the Google Forms tab.

By clicking below, you agree to participate in this study. You indicate that you understand the risks and benefits of participation, and that you know what you will be asked to do. You also agree that you have asked any questions you might have, and are clear on how to stop your participation in the study if you choose to do so.

#### HYPOTHETICAL SCENARIO

Imagine that Miguel was asked to make evaluative judgments about a questionable act by a fellow auditor.

Imagine that the auditor Miguel was in a meeting where information about the company Master Tec S/A (audit client) was presented, including a general description of the company, an overview of the operating cycle and the current (unaudited) financial statements and the previous year (audited). Miguel was also informed that fellow auditor Pedro, was in the three previous audits and is very appreciated by the client.

During Miguel's conversations with some of the client's employees, it was discovered that Pedro had received a proposal to a position in the company Master Tec S/A. Miguel was informed that Pedro was still deciding whether to accept the position or continue with his role as auditor for the company Master Tec S/A.

The company Master Tec S/A was informed that the job offer could be seen as harmful to independence and the entity received guidance from the ethics standards on this matter. In particular, auditors were told that the ethics ruling states that “the individual must remove himself or herself from the engagement until the employment

offer is rejected or employment is no longer being sought, in order to prevent the appearance that integrity or objectivity has been impaired.”

The company Master Tec S/A does not have a good internal control structure. Some controllership professionals, while possessing adequate qualifications, often exhibit laxity in performing duties. The Company uses aggressive accounting policies and defends their use vigorously. During the course of previous audits, several material errors were discovered and after lengthy discussions, adjustments were booked by the Company.

### ATTENTION CHECK

1. What was the name of the audit client?
  - Master Tec S/A.
  - Big Tec S/A.
  
2. The job offer was offered to which auditor?
  - Miguel
  - Pedro

### QUESTIONS

1. Based on the hypothetical scenario presented above, what is the probability that Miguel reports to his superior that Pedro has a job offer from Master Tec S/A?  
Scale from 1 to 7
  
2. Based on the hypothetical scenario presented above, if it were you in the same situation, how likely would you be to report the situation exposed to your superior?  
Scale from 1 to 7

### QUESTIONS OF THE LOCUS OF COMMITMENT CONSTRUCT

1. I am more committed to my firm than to the individuals with whom I work.  
Scale from 1 to 5
  
2. I am more responsible for the success of my firm than the personal success of my colleagues.  
Scale from 1 to 5
  
3. I identify more with my firm than with my co-workers.  
Scale from 1 to 5

### QUESTIONS OF THE ETHICS CONSTRUCT

1. Which is worse?
  - a. Hurting someone’s feelings by telling the truth (C).
  - b. Telling a lie and protecting their feelings (J).
  
2. Which is the worse mistake?

- a. To make exceptions too freely (J).
  - b. To apply rules too rigidly (C).
3. Which is it worse to be?
- a. Unmerciful (C).
  - b. Unfair (J).
4. Which is worse?
- a. Stealing something valuable from someone for no good reason (J).
  - b. Breaking a promise to a friend for no good reason (C).
5. Which is worse?
- a. Not helping someone in trouble (C).
  - b. Being unfair to someone by playing favorites (J).
6. In making a decision you rely more on:
- a. Hard facts (J).
  - b. Personal feelings and intuition (C).
7. Your boss orders you to do something that will hurt someone. If you carry out the order, have you actually done anything wrong?
- a. Yes (C).
  - b. No (J).
8. Which is more important in determining whether an action is right or wrong?
- a. Whether anyone actually gets hurt (C).
  - b. Whether a rule, law, commandment, or moral principle is broken (J).

### DEMOGRAPHIC INFORMATION

1. Age: In years;
2. Gender: Female, Male, Prefer not to answer;
3. Education level: High school graduate, Incomplete higher education, Education University Graduation, Postgraduate;
4. Work experience: In months;
5. Role: Trainee, Advisor, Senior, Manager, Senior Manager, Director, Partner;
6. Auditor: Yes/No;
7. Have you ever witnessed a situation considered unethical or questionable act? Yes/No.