



Whistleblowing in small and large accounting firms in Brazil

Whistleblowing en pequeñas y grandes oficinas contables en Brasil

Jonatas Dutra Sallaberry^{a,*} , Isabel Martínez-Conesa^b , Leonardo Flach^c 

a) Universidade Federal do Paraná - Curitiba, Paraná (Brazil)

b) Universidad de Murcia - Murcia (Spain)

c) Universidade Federal de Santa Catarina - Florianópolis, Santa Catarina (Brazil)

* Primary Contact: jonatas.sallaberry@ufpr.br (Jonatas Dutra Sallaberry)

Abstract

Organizations must constantly try to prevent losses resulting from unforeseen events and fraud. Whistleblowing has emerged as the most efficient mechanism for detecting such risks, but this phenomenon has not yet been studied in SMEs. This research seeks to analyze the relationships between attitudinal, normative, and control beliefs on the whistleblowing of accounting professionals, contrasting the behavior between small and large accounting firms from the perspective of the Theory of Planned Behavior. By using the structural equation modeling (PLS-SEM) method on a sample of 559 Brazilian accounting professionals, the analysis shows that an individual's perceptions and characteristics influence their whistleblowing practices depending on firm size. SME accountants are directly and negatively influenced by family management and control beliefs, but are positively influenced by the moderation of attitudinal beliefs and by the risks of the scenario.

Keywords: whistleblowing; accounting offices; SMEs; behavior; ethics

JEL Classification: M40; M42; M48

Resumen

Las organizaciones deben tratar constantemente de evitar pérdidas derivadas de imprevistos y fraudes. La denuncia de irregularidades se ha perfilado como el mecanismo más eficaz para detectar dichos riesgos, pero este fenómeno aún no ha sido estudiado en las PYME. Esta investigación busca analizar las relaciones entre las creencias actitudinales, normativas y de control sobre la denuncia de los profesionales contables, contrastando el comportamiento entre pequeñas y grandes firmas contables desde la perspectiva de la Teoría del Comportamiento Planificado. Al utilizar el método de modelado de ecuaciones estructurales (PLS-SEM) en una muestra de 559 profesionales contables brasileños, el análisis muestra que las percepciones y características de un individuo influyen en sus prácticas de denuncia de irregularidades según el tamaño de la empresa. Los contadores de las PYMES están influenciados directa y negativamente por la gestión familiar y las creencias de control, pero están influenciados positivamente por la moderación de las creencias actitudinales y por los riesgos del escenario.

Palabras clave: denuncia; oficinas de contabilidad; PYMES; comportamiento; ética

Clasificación JEL: M40; M42; M48

1. Introduction

The practice of reporting suspected irregularities aims to protect organizations and enable the market to become more sustainable and transparent among the market agents and society, and may therefore be considered a Corporate Social Responsibility practice (Eterović et al., 2015). Reports of suspected irregularities can occur on a variety of topics, from money laundering and cartel crimes to practices of environmental contamination, exposure of employees to chemical agents, falsification of products, and the use of damaged or prohibited inputs. These types of misconduct occur for the benefit of persons or organizations that aim to obtain economic advantages or that accidentally leave their control mechanisms precarious, and may even be caused by employees to the detriment of their organizations. The costs of repairs and penalties can sometimes result in major harm to the company, and could even lead to bankruptcy.

Whistleblowing is the main organizational mechanism for identifying fraud and other illicit acts. The sooner these acts are reported, the less damage to the organization they generate (ACFE, 2022). Reporting suspicious and illegal acts can contribute to the achievement of the Sustainable Development Goals (SDGs), such as Goal 8, which highlights economic growth by mitigating risks and financial losses, both directly and indirectly, as well as Goal 16.5, which deals with reducing corruption and bribery in all its forms (Lubas et al., 2021).

There are different ways to approach the underlying reasons for behavior depending on the geographical location where it takes place, such as in the USA (Lee et al., 2021), Africa (de Maria, 2005; Owusu et al., 2020; Soni et al., 2015), Europe (Bogdanovic & Tyll, 2016; Oelrich & Erlebach, 2021), Asia (Mansor et al., 2020; Park et al., 2008; Tudu, 2021; Zhang et al., 2017), and Latin America and the Caribbean (Alleyne et al., 2016; Maragno, 2019), which has the highest proportional value of fraud losses when compared to GDP per capita (ACFE, 2022). In this region, there exists a large network of corrupt companies and government officials, reaching as far as Argentina, Bolivia, Brazil, Colombia, Cuba, Ecuador, Guatemala, Mexico, Panama, Peru, the Dominican Republic, and Venezuela (Maragno & Borba, 2019; Sallaberry et al., 2020).

The whistleblowing literature does not address the differences in the behavior of employees in small and medium-sized enterprises (SMEs), even though they represent the majority of market organizations (Bikefe et al., 2020). Nonetheless, other variables in the literature can contribute towards understanding what might happen in these small companies. The variable representing the size of the organization was not significant in the internal channel. However, it was negative for the reports in external channels. In other words, professionals from smaller companies are more likely to whistleblow (Alleyne et al., 2018). The organizational support variable can be related to the size of the company and was also not significant for the internal channels, and was negative for the reports in external channels (Alleyne et al., 2016). Presenting another perspective, Reichelt and Wang (2010) showed that SMEs, among the comparative advantages, possess the highest degree of knowledge about their customers and their business.

Faced with this divergence and seeking a better understanding of whistleblowing in small and medium-sized accounting firms, the research aims to analyze the relationships between attitudinal, normative, and control beliefs on the whistleblowing of accounting professionals, distinguishing the relationships between small and large accounting firms in light of the Theory of Planned Behavior (TPB). By understanding how the beliefs of accounting professionals from small and large companies influence their behavior, the results may contribute to the development of controls, strategies, and supports that could promote more effective reporting of suspicious events, particularly in SMEs. Losses, damages, and fraud would therefore be identified earlier, reducing economic losses for accounting firms and their clients. In addition, the clients of small accounting firms are more likely to also be SMEs, and a larger governance in SME accounting has a greater potential impact on the business environment (Chan et al., 2022).

Hence, a survey was conducted in order to identify whistleblowing beliefs and behavior, and, consequently, to analyze all the indicators through structural equations, using the partial least squares (PLS-SEM) method. The article is composed of this introduction, followed by the theoretical development and a section on the methodological procedures, which includes the indicative of the sample of respondents, the construction of the collection instruments, and the analysis technique. The second part of the article consists of the data analysis, the validation and discussion of the model and its structural relationships, and the interpretation of the results, ending with the final considerations.

2. Theoretical Development

Whistleblowing behavior can be defined as the disclosure by organization members (former or current) of illegal, immoral, and illegitimate practices under the control of their employers to parties and organizations that may be able to effect action (Near & Miceli, 1985), revealing unauthorized information that provides evidence of the violation (Vinten, 1992), of which the whistleblower is neither a direct participant nor a direct victim (Gottschalk & Asting, 2022). Whistleblowing is an action based on a highly complex psychological process and depends on the trust or the belief that wrongdoings will be corrected (Gundlach et al., 2003; Soni

et al., 2015). It is considered a positive form of behavior and is encouraged in the workplace (Park & Blenkinsopp, 2009). To modify behavior, interventions can be directed towards the individual's beliefs when these have control over their behavior (Ajzen, 2016).

The application of behaviorist theories has proved itself as a useful theoretical lens for predicting ethical and unethical behavior (Park & Blenkinsopp, 2009), such as dishonest actions (Beck & Ajzen, 1991), the unauthorized copying of software (M. K. Chang, 1998), the intention to report irregularities in the medical profession (Randall & Gibson, 1991), in consumer behavior (Fukukawa, 2002), in the intention to pay taxes (Bobek & Hatfield, 2003), in the intention of drivers to commit traffic violations (Parker et al., 1992), and behavior concerning waste (Teo & Loosemore, 2001).

The subject of whistleblowing does not have an applicable general theory, which was initially considered a significant problem (Miceli & Near, 1988), in both a theoretical and a practical sense (Park & Blenkinsopp, 2009). Over the last decade, the TPB has established itself as the most widely applied theory about the relationships between attitudes, intentions, and behaviors, including whistleblowing (Latan et al., 2018). Due to the need for regulators to encourage whistleblowing and to the difficulties with directly studying such behavior, researchers had previously relied on indirect measures: first they focused on the attitudes, and then on the intentions, as a substitute measure of whistleblowing behavior (Park & Blenkinsopp, 2009).

Behaviorist theories about whistleblowers' beliefs arrived from the field of the social sciences. Their origins and references are derived from the work of Gustave Le Bon on the psychology of crowds and from Freud on group psychology. Later, Kurt Lewin, at the Massachusetts Institute of Technology, founded the American School of Social Psychology in 1933, where the theory of rational action (TRA) was developed in the 1960s, as well as, later on, the theory of planned behavior (TPB). The theoretical framework assumes that people tend to behave rationally and to systematically use the information made available to them when deciding whether to act or not (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). In this context, behavioral intentions are determined by the attitude towards behavior and the subjective norm, still considered the best intention predictor (Ajzen & Kruglanski, 2019).

Behavioral beliefs attach the behavior of interests to the probable outcomes of the behavior, and also to the assessments of these outcomes (Y. Chang et al., 2017; Park & Blenkinsopp, 2009). The attitude in relation to a behavior represents the degree to which the behavior performance is valued positively or negatively (Ajzen, 1991). The attitude is considered to the extent in which it agrees or disagrees with the result of the behavior, and whether this action causes an adverse effect, or whether the individual will be reluctant to report it (Tarjo et al., 2019).

Normative beliefs represent the behavioral expectations perceived by the individual from social referents, who are people considered to have a relevant opinion, such as bosses, teachers, family members, etc. (Ajzen, 1991). This normative belief considers the force corresponding to the weighting of how much these social referents' opinions are important for the individual when deciding how to act (Ajzen, 1991; Mesmer-Magnus & Viswesvaran, 2005). Being accepted by your referents is an important goal (Tarjo et al., 2019). Thus, if the accounting professional considers that his social referents believe that suspicious illicit acts must be reported, the individual may consider the relevance of the referent's opinion. If the weighting is superior, the influence considered will be the denunciation, otherwise the influence will lead to the individual choosing to remain silent (Park & Blenkinsopp, 2009; Trongmateerut & Sweeney, 2013).

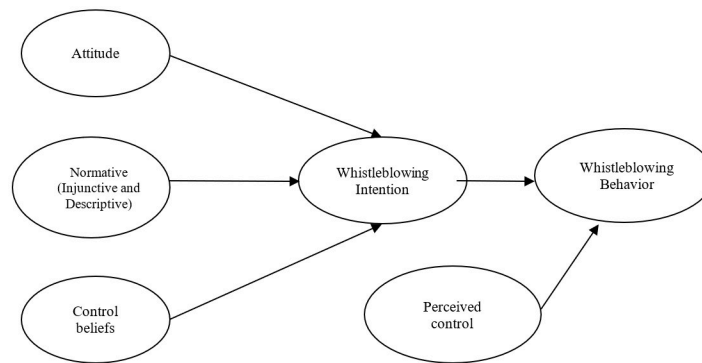
In the subsequent decades of the 1980s and 1990s, the theoretical platform had evolved by incorporating control beliefs into a new theory, the TPB (Ajzen, 1991), which improved the predictive capacity of the whistleblower's intention (Cheng & Lam, 2008; Tudu, 2021). These control beliefs, dimensioned by their capability and strength, refer to the difficulty, the facility, or even the impediment perceived by the individual for behaving in a certain way (Ajzen & Kruglanski, 2019), and are related to the perceived presence of certain factors that may facilitate or restrain the performance of a behavior.

These control elements derive from negative or positive beliefs about reporting. Among the negative ones are the impossibility of correcting the wrongdoing and the concern about retaliation, which can be considered as organizational obstacles, including other antecedents such as past experiences, third-party information on hindering or ignoring reports, difficulties in presenting the complaint, and the organizational impossibility of correcting mistakes (Ajzen, 1991; Mesmer-Magnus & Viswesvaran, 2005; Miceli & Near, 1992; Park & Blenkinsopp, 2009). Positive beliefs include organizational support (Latan et al., 2018; Mustafida, 2020), rewards (Maragno, 2019), whistleblower protection, and company support (Y. Chang et al., 2017; Gorta & Forell, 1995).

Control beliefs are added to attitudinal and normative beliefs to explain a particular behavior. The TPB later incorporated real control over behavior (Ajzen, 2002), which refers to the individuals' perceptions of their real capacity and possibility in performing a certain behavior. The intention proxy is an indicator of the promptitude of performing a certain behavior (Park et al., 2008). The intention is considered an immediate

antecedent of behavior, and, to the extent that actual behavioral control exists, could serve as a proxy and contribute to the prediction of the behavior (Fishbein & Ajzen, 2011).

Figure 1. Theoretical Research Model



The evidence of previous research on business environments other than SMEs demonstrates the usefulness and relevance of the TPB in explaining whistleblowing behavior, and, consequently, in reducing fraud and the damage that it causes (ACFE, 2022). Behavioral beliefs positively influence the whistleblower's intent and behavior when it is attested that whistleblowing can positively affect the organization and the individual, as already demonstrated by other research (Alleyne et al., 2018; Brown et al., 2016; Chwolka & Oelrich, 2020; Dalan et al., 2019; Kashanipour et al., 2020; Lee et al., 2021; May-Amy et al., 2020; Park & Blenkinsopp, 2009).

The social referents' perception of normative beliefs by the injunctive norms of the social approval or disapproval of others, and by descriptive norms about what others are doing, tend to influence an individual's behavioral choices, insofar as the behavior is accepted in the environment (Moan & Rise, 2006). Environments of positive influence on the whistleblower's intention are attested in several studies (Dalan et al., 2019; Kashanipour et al., 2020; Lee et al., 2021; May-Amy et al., 2020; Mustafida, 2020; Tarjo et al., 2019; Trongmateerut & Sweeney, 2013; Tudu, 2021), while, in other environments, indicators with different meanings or with a negative meaning are revealed (Bogdanovic & Tyll, 2016; Cheng & Lam, 2008; Chwolka & Oelrich, 2020).

Control beliefs, referring to factors that can facilitate or impede the performance of a behavior, are also relevant to the explanatory capacity of whistleblowing intention and behavior (Ajzen, 1991; Mesmer-Magnus & Viswesvaran, 2005). Environments with controls that stimulate reporting were noticed in the results of previous research (Anggraini & Siswanto, 2016; Brown et al., 2016; Cheng & Lam, 2008; Kashanipour et al., 2020; Lee et al., 2021), whereas in research by Chwolka and Oelrich (2020), they were perceived as impediments.

SMEs do not usually have the same structure as larger companies. Therefore, they may find it more difficult to develop and implement control systems and compliance units, or even to invest in training and fraud detection mechanisms (Chan et al., 2022). This organizational support represents an important set of determinants in encouraging whistleblowing behavior (Cho & Song, 2015). These are characteristics that can be affected by the organization's size and structure.

The literature considers such measures as resources that support the performance of the behavior, categorized as positively perceived control beliefs. Some arise from the individual's personal characteristics, potentials, and cognitive perceptions, but others emerge from the assistance and encouragement of organizations, also known as organizational support. Brown et al. (2016) emphasize the support of the system of internal control and prevention of financial loss. Other important elements of whistleblowing behavior may be included, such as institutional policies, ethics codes, whistleblowing legislation, anonymous reporting channels, and the presence of compelling evidence (Brown et al., 2016; Dworkin & Baucus, 1998; Keenan, 2000; King, 2001; Near & Miceli, 1985; Sallaberry & Flach, 2022; Tarjo et al., 2019; Vandekerckhove & Lewis, 2012).

3. Methodological Procedures

3.1. Sample Selection

The research sample consists of 559 accounting professionals, who were contacted via the professional network LinkedIn and by emails addressed to accounting offices and companies. The sample cut for segmenting the SMEs was a maximum of nine employees, a similar criterion to that used by Carrera and

Trombetta (2018), whose research resulted in samples of 372 employees from SMEs and 187 from large accounting offices.

To validate the sample size, we considered the total effect of the eight predictor variables on the dependent variable (whistleblowing behavior), with a sufficient sample size previously calculated using the *G*Power* software, with a median effect of 0.15 (F2), and a test power of 95%, corresponding to a significance level of 5% (F test, LMR, SD 0, a priori), which required a minimum sample of more than 160 valid responses (Cohen, 1988; Faul et al., 2009; Hair et al., 2017).

3.2. Respondents' Profile

The sample of Brazilian accounting professionals linked to SMEs and large accounting offices is mainly composed of men (71.9%) and, although this figure is undesirable, it can be partly explained by the greater fear of Latin-American women of suffering reprisals for responding to the survey (Sallaberry et al., 2021). Most of the participants in the sample have at least a postgraduate degree at the level of specialization (66.4%) and occupy managerial positions (59%), which was to be expected, as partners in micro-enterprises often perform basic and operational functions. The highest concentration of professionals have been in the professional activity for more than 15 years (55.4%), which may help to explain the concentration of male respondents, among other characteristics shown in Table 1.

Table 1. Respondents' Data

Profile	Qty	Freq. (%)	Profile	Qty	Freq. (%)
Academic degree			Gender		
Technician	30	5.4%	Female	157	28.1%
Graduate	158	28.3%	Male	402	71.9%
Specialist	282	50.4%	Total	559	100%
Master's/MBA	83	14.8%	Fraud Training (hrs/last 2 years)		
PhD	6	1.1%	None	96	17.2%
Total	559	100%	1 to 30	196	35.1%
Time in Main Activity (years)			31 to 100	197	35.2%
1 to 5	60	10.7%	101 to 200	58	10.4%
6 to 10	91	16.3%	Above 200	12	2.1%
11 to 15	98	17.5%	Total (average 49.9 hours)	559	100%
16 to 20	102	18.2%	Dedication to Main Activity (%)		
21 to 25	70	12.5%	1% to 50%	46	8.2%
26 to 30	96	17.2%	51% to 80%	123	22.0%
31 to 40	42	7.5%	81% to 100%	390	69.8%
Total (average 18.2 years)	559	100%	Total (average 84.7%)	559	100%
Relationship			Family Management		
Employee	91	16.3%	Yes	283	50.6%
Partner without relevant influence	96	17.2%	No	254	45.4%
Main Partner	372	66.5%	Unknown	22	3.9%
Total	559	100%	Total	559	100%
Functional Position			Obligation with FIU		
Operational	150	26.8%	No	82	14.7%
Tactical	79	14.1%	Yes	449	80.3%
Senior	330	59.0%	Unknown	28	5.0%
Total	559	100%	Total	559	100%

3.3. Collection Instrument

The data collection instrument was developed on the SurveyMonkey® virtual platform, whose variables and question items were based on already validated international surveys (Sallaberry et al., 2022), translated and back-translated (Brislin, 1980), and pre-tested for external validation (Yin, 1994). The assertions related to the individuals' perceptions were answered using a seven-point Likert scale (from 1, meaning *totally disagree*, to 7, meaning *totally agree*). The instrument also allowed the collection of other control variables, such as gender, position, age, years in the organization, and other variables related to experience and skills at different scales.

4. Analysis and Discussion of Results

The analysis of the data was performed using the partial least squares structural equation modeling (PLS-SEM) method. The application of structural equations is understood to be more appropriate when there are interdependencies or simultaneous causes on the observed response variables, and when there exist important unobserved or omitted explanatory variables (Jöreskog & Sörbom, 1982).

At the same time, the technique allows to estimate a series of separate, but interdependent, multiple regression equations by specifying the structural model (Dijkstra, 2010; Hair et al., 2017; Ringle et al., 2015). The choice of the PLS-SEM method instead of one based on covariance (CB-SEM), stems from the aim of the research (structure or prediction), whose focus consists in predicting behavior instead of simply studying the structural equation models with observable variables (Jöreskog & Wold, 1982; Ringle et al., 2015). In accordance with Hair et al. (2017), PLS-SEM models are preferable in predicting driver constructs, exploratory research, and the extension of an existing structural theory.

4.1. Measurement Model

Due to the instrument employed, the evaluation of the measurement model incorporated the evaluation of the instrument's validity, although it does not represent a set of values directly measured in the process of partial regressions, following the calculation logic of the TPB design. According to the theoretical proposition of Ajzen (2016), each set of beliefs represents the sum of the product of the indicator (n_i) and its strength (s_i) in the set of TCP variables (Attitude and Strengths of Attitude Beliefs; Descriptive Norm and Strength of Descriptive Norm; Injunctive Norm and Strengths of Injunctive Norm; and Control Beliefs and Strengths of Control). Thus, a lower perception of conceptual beliefs can be compensated by a greater strength of this belief, so that, in the end, all indicators add up to a single value which represents the entire belief, according to the formula: $Belief \propto \sum(n_i s_i)$.

In this context, the value of the belief is unique, and, therefore, the validity and internal consistency are evaluated by weighing its belief and its strength. Another point to note is that the formative variables do not present comparative indicators. This is the case for Intention and Whistleblowing Behavior, where the individual is usually satisfied with the report on validating a correlation in one or another channel, instead of all or most channels.

Table 2. Discriminant validity of the variables

Variables	Alpha	rho	Fiab	AVE
Attitude	0.88	0.89	0.91	0.68
Injunctive norm	0.71	0.74	0.82	0.61
Descriptive norm	0.75	2.84	0.82	0.61
Control beliefs	0.60	1.13	0.80	0.68
Perceived control	0.86	0.94	0.90	0.64
Whistleblower intent		1		
Whistleblower behavior		1		

Therefore, it was decided to evaluate the indicators based on the validity of the product of each indicator 'i'. By considering the cross loads and the convergence validity indicators of Cronbach's Alpha, AVE, and ρ in the processing of the discriminant validity, it was necessary to exclude determinants of the variables from the injunctive norm (FNNS4), descriptive norm (FNNS7), and controls (FCCC1, FCCC2, FCCC5, and FCCC6).

Table 3. Discriminant validity of the variables

Latent Variables	1	2	3	4	5
1 Attitude	0.822				
2 Injunctive Norm	0.335	0.78			
3 Descriptive Norm	0.154	0.204	0.78		
4 Control Beliefs	-0.02	-0.063	0.006	0.822	
5 Real Control	0.452	0.237	0.151	-0.008	0.798

The analysis of the validity indicators revealed satisfactory and relevant coefficients, except for the construct of control beliefs, for which, even after excluding four indicators, there remained a coefficient of 0.6, below the ideal metric of 0.7. This is relatively common in empirical-exploratory works, although it is not ideal. Once the assumptions are accepted, these coefficients indicate that the sample is theoretically free of bias and that the data collection instrument is reliable (Hair et al., 2017). These relationships confirm the discriminant validity

with satisfactory coefficients in the Fornell-Larcker matrix, with the highest load directed to the corresponding reflective variables, located on the main diagonal, as shown in Table 3.

4.2. Assessment of the Structural Model

The evaluation of the structural model employs the criteria analyses of (i) Pearson's determination coefficients (R^2) using the bootstrap method; (ii) the effect sizes (F^2); (iii) the Predictive Relevance (Q^2) in the blindfolding platform and the criteria of the research development; and (iv) the size and significance of the path coefficients (Hair et al., 2017).

The value of R^2 indicates the explanation percentage of the dependent variable of the model, which does not have a cut-off point, although the desired value is the highest one possible, given that it reaches 40.4% in the report intention, and 20.1% in the whistleblowing behavior. F^2 is a measure that assesses whether there is a substantial impact on the dependent construct, whose F^2 parameters, suggested by Hair et al. (2017), are perceived as having little effect on the main relationships of the intention and the whistleblowing behavior. The Q^2 criteria shows how close the empirical model is to its expected prediction, as obtained through the blindfolding procedure. The technique advocates that, when the value of Q^2 is greater than zero for the endogenous latent variable in the PLS-SEM, it signals the model's predictive relevance for this construct, whose outputs demonstrate validated values in this research. The multicollinearity analysis used the VIF (*variance inflation factor*), which reveals multicollinearity problems for coefficients of five or above (Hair et al., 2017). However, the highest value of 1.495 for internal coefficients (ControlsXNormInjunctive -> Intention), and 4.055 for external coefficients (ID8), allows a validation of the model by indicating that it is free of multicollinearity among the variables.

The analysis of the structural model also permits a statistical validation of the relationships between the constructs and the connections constructed according to the structure of a path's diagram (Hair et al., 2017). Using the bootstrap method, the subsamples were created with observations randomly taken from the original dataset (with replacements), and then used to estimate the PLS path model. In this case, 3,000 different subsamples were generated, as recommended by Hair et al. (2017), whose results are presented in Table 4 for the general sample and for two groups of employees from SMEs and large accounting firms.

Table 4. Structural Relationships

Structural Relationship	General		SMEs		Large Firms	
	Coef	P-Valor	Coef	P-Valor	Coef	P-Valor
Intent -> Behavior	-0.026	0.442	-0.262	0.155	0.582	0.105
Attitude -> Intent	-0.098	0.138	0.027	0.417	0.599	0.0***
Attitude -> Behavior	0.046	0.377	-0.24	0.135	-0.678	0.083*
Injunctive Norm -> Intent	0.139	0.011**	-0.122	0.104	0.126	0.158
Injunctive Norm -> Behavior	-0.136	0.255	0.283	0.139	0.066	0.417
Descriptive Norm -> Intent	0.121	0.078*	0.119	0.065*	0.204	0.019**
Descriptive Norm -> Behavior	0.346	0.094*	0.092	0.281	-0.532	0.107
Control Beliefs -> Intent	-0.217	0.0***	-0.293	0.001***	-0.074	0.294
Control Beliefs -> Behavior	-0.004	0.476	0.104	0.213	0.104	0.288
Moderators						
ControlsXAttitude -> Intent	0.326	0.0***	0.392	0.001***	-0.063	0.293
ControlsXNormDescriptive -> Intent	-0.072	0.112	0.101	0.043*	0.178	0.032**
ControlsXNormInjunctive -> Intent	-0.032	0.273	-0.073	0.146	-0.386	0.003***
Actual Control -> Behavior	-0.282	0.123	-0.151	0.168	0.115	0.315
Actual Control -> Controls	-0.111	0.023**	-0.189	0.0***	0.025	0.426
Sample Controls						
Family Management -> Intent	0.002	0.482	-0.151	0.091*	0.012	0.456
Family Management -> Behavior	-0.027	0.354	0.131	0.167	-0.143	0.218
Gender -> Intent	-0.306	0.0***	-0.453	0.0***	0.349	0.004***
Gender -> Behavior	0.206	0.163	0.336	0.175	-0.717	0.064*
Scenario -> Intent	0.323	0.0***	0.251	0.02*	0.112	0.23

Notes * p.v < 0.10; ** p.v < 0.05; *** p.v < 0.01

4.3. Interpretation of Results

The analysis of the relationships between the variables shows a more detailed reflection of the forces and beliefs that promote whistleblowing intentions and behavior in SMEs. The relationships of individuals from different contexts reveal dispersion in these perceptions, including the expansion of the level of significance to

0.10, which weakens reliability, but which reaches a significance below .05 and .01 in most validated relationships.

The proposed intentions were not shown to match the effective behavior in SMEs (β -0.262, *p*. 0.155) and in large companies (β 0.582, *p*. 0.105), which reveals the behavior as being more impulsive than planned, contrary to what the TPB proposes (Ajzen, 2002). This evidence reinforces the existing discussions in the whistleblowing literature, in which the real transformation of intentions into effective behavior is criticized (Harris & Hagger, 2007), and is aggravated by the difference in the measurement of these perceptions between the intention arising from the assessment of the risk scenario and the actual behavior measured from the past experience. The empirical verification of beliefs as determinants, as only the subjective norm is descriptive (β 0.346, *p*. 0.094), showed the influence from the example of the social referents (Moan & Rise, 2006).

The intention, as an intermediate variable between the beliefs and the effective behavior, captured the effects resulting from the beliefs to influence the behavior (Ajzen & Kruglanski, 2019). The intention stems from the set of beliefs that leads the accounting professional to perceive the subjective norm, which reinforces indications that people follow opinions (β 0.139, *p*. 0.011) and examples (β 0.121, *p*. 0.078), and it is reduced by the availability of controls (β -0.217, *p*. 0.000), but whose moderation on attitude has a positive influence (β 0.326, *p*. 0.000). The sample controls were also significant, showing a higher propensity for women to report (β -0.306, *p*. 0.000), and that more reporting occurs in high risk scenarios (β 0.323, *p*. 0.000).

The segmentation of the behavioral analysis in a group of accounting professionals located in small and large accounting offices allowed a greater alignment of individual perceptions. In the group of professionals from SMEs, eight relationships were significant, while, in large firms, seven relationships were significant, but among these only three were coincident. This demonstrates a greater diversity of perceptions differentiated by the size of the accounting firms.

In SME accounting firms, the whistleblowing intention proved to be explained by the variables of descriptive normative beliefs (β 0.119, *p*. 0.065), control beliefs (β -0.293, *p*. 0.001) and their moderation on attitude (β 0.392, *p*. 0.001), the descriptive norm (β 0.101, *p*. 0.043), and by the scenario (β 0.251, *p*. 0.020), and is negatively influenced by family management (β -0.151, *p*. 0.091) and gender (β -0.453, *p*. 0.000). In large accounting firms, attitude has been shown to influence intention (β 0.599, *p*. 0.000) and whistleblowing behavior (β -0.678, *p*. 0.083) in divergent ways, as well as intention by descriptive normative beliefs (β 0.204, *p*. 0.019) and by the moderation of control beliefs in descriptive (β 0.178, *p*. 0.032) and injunctive (β -0.386, *p*. 0.003) norms. In addition, gender was a control variable that demonstrated divergent significance and meaning for intention (β 0.349, *p*. 0.004) and behavior (β -0.717, *p*. 0.064).

Attitudinal beliefs representing the expectations about the outcome of the complaint (Ajzen, 1991) did not show a relationship among professionals from SMEs, although, in large offices, this relationship strongly corroborates the literature (β 0.599, *p*. 0.000), reinforcing it with more evidence. This may be related to organizational support that provides the employee with cases and examples of reports that resulted in correcting problems. Unlike the literature proposal, as already indicated by the absence of a relationship between the intention and the behavior, the attitude showed an inverse influence on whistleblowing behavior (β -0.678, *p*. 0.083). It denotes that, at a time of decision-making, and in addition to the disconnection between intentions and effective practices, the individuals may perceive that the expected result is not achieved, and consequently do not transform the intention into reality.

Although this relationship was not expected in large Brazilian accounting firms, it corroborates the findings of other research with internal auditors (Anggraini & Siswanto, 2016), master's students (Bogdanovic & Tyll, 2016), and external auditors (Mansor et al., 2020). These relationships may stem from stricter regulatory frameworks, and from workflows with more hierarchical structures, which inflict greater obstacles and risks on interpreting a report. In addition, larger companies tend to have a greater image risk, which can affect the organization's interpretation.

The descriptive injunctive norm behaves similarly, in sense and significance, for both SMEs and large offices, which corroborates the expectation that the manifest indication of social referents influences the intention to report (Dalan et al., 2019; Latan et al., 2018; Lee et al., 2021). This reveals that, in both places, the collaborators are more susceptible to the influence of social referents' opinions. When segmented, the control beliefs manifested in the general group only appeared in the group of SME employees, which denotes that the existence of mechanisms, tools, and control systems somehow limits whistleblowing (β -0.293, *p*. 0.001). This may be linked to the opportunity of identifying information that resolves the suspicion, thus avoiding inconsistent reporting, as already demonstrated in other empirical studies (Chwolka & Oelrich, 2020; Lee et al., 2021). In other words, these statistical results show that the means which facilitate or impede the realization of a report reveal an opposite direction to the individual's intention, i.e., the individual develops a greater intention to take the effective measure with a lower perception of the availability of channels,

protection, and assurance mechanisms. This reinforces the impulsive aspect of the behavior, but also the intuitiveness and cognitive creativity of seeking the greatest impact with fewer resources.

The moderation of controls is an element that reinforces the divergences in the work environments of SMEs and large accounting offices. In large offices, the relationship is not significant, but in SMEs the existence of controls moderating the attitude is positively affected (β 0.392, p . 0.001), revealing that, when the controls are directed at the perception of the attitude (in which a report results), it is possible to achieve a greater intention to report. In other words, the controls need to be aimed at the employee to perceive that a report is not about investigating or punishing an individual for carrying out an improper transaction, but for protecting the organization from losses or punishments.

In both SMEs and large offices, the controls that moderate the descriptive norms positively affected the denunciation (β 0.101, p . 0.043 | β 0.178, p . 0.032), reinforcing the importance of control mechanisms in emphasizing that managers and coordinators value whistleblowing behavior. In contrast, the negative results on the moderation of controls on the injunctive norms only for large firms (β -0.386, p . 0.003), which attribute to the social referent's examples, denote potential concern with their image and their responsibility. Consequently, this constrains the employee to reporting, which ends up managing the problem.

The sample control's variables also reveal important relationships regarding family management in these companies, as well as for the gender and scenario used in the instrument. Family management shows a lower propensity for the intention to report in SME accounting offices (β -0.151, p . 0.091), which may be related to social ties with managers which transcend the business environment to external social relationships, and where reporting would harm this environment. Gender also showed significant relationships with intention (β -0.306, p . 0.000), demonstrating a negative relationship with the male gender: in this sample, men report less than women and women have a greater intention to report. However, the segmentation is relevant because it shows differences in the relationships in different contexts. In SMEs, the proposed intention is similar (β -0.453, p . 0.000), but in large companies the direction is the opposite: in large companies, men present more intentions to report (β 0.349, p . 0.004), which may underlie the defense mechanisms that women have. Thus, women would have a greater intolerance to fraud, as they already belong to a segment traditionally more affected by moral and sexual harassment, and other pressures in the work environment.

5. Conclusions

By analyzing whistleblowing behavior in Brazilian SME accounting firms, it was possible to identify that employees cognitively process intention and effective behaviors in different ways. Large companies positively supported their reports based on the behavioral results and the respondents' gender characteristics, although, in general, the intention to report did not reflect on effective behavior, which denotes the impulsive and intuitive aspect of reporting suspicious events. In SMEs, beliefs that affect reporting intentions and behaviors were demonstrated to be different from those that influence individuals in large companies.

For intention and whistleblowing behavior, the perception of attitudinal beliefs is indifferent in SMEs, which differs from the results found by Alleyne et al. (2018), Brown et al. (2016), Chwolka and Oelrich (2020), Dalan et al. (2019), Kashanipour et al. (2020), Lee et al. (2021), May-Amy et al. (2020), and Park and Blenkinsopp (2009). These findings demonstrate the absence of clear and direct links between the perception of attitudes and their results, denoting the possibility of automated or intuitive (Courtois & Gendron, 2020), but not utilitarian, behavior.

The subjective norm, in its descriptive form, showed a positive relationship with the intention to report, as was contextually evidenced by Dalan et al. (2019), Kashanipour et al. (2020), Lee et al. (2021), May-Amy et al. (2020), and others. This demonstrates that, in SMEs, individuals follow what others are doing, and not just with words. Although this affected the intention to report, it did not affect the final behavior based on past experiences. Moreover, the other subjective beliefs proved to be indifferent to intention and behavior.

The control beliefs, which would be the evolutionary differential of the TPB, were indifferent in influencing reporting behavior in small and large companies, and showed a negative relationship with the individual's intention in SMEs. Thus, the existence of mechanisms that facilitate reporting can mitigate the intention to report, which may be due to a greater empowerment combined with a greater acceptance or appetite for business risks, similar to Chwolka and Oelrich (2020), but divergent from most of the research (Anggraini & Siswanto, 2016; Brown et al., 2016; Cheng & Lam, 2008; Kashanipour et al., 2020; among others).

The research leaves several gaps that can be expanded on and explored in the whistleblowing and SME literature. The evidence obtained contributes to investigating an unexplored context in the SME literature, which, in the accounting segment, depends on a greater participation in reporting illicit acts (Sallaberry & Flach, 2021). The intention to report presented by the collaborators showed the absence of traditional influences and a divergence in the controls, revealing that intentions are sustained from more creative and

intuitive cognitive processes, and from the attitudes that need to be supported by the organization for its protection, even in large companies with robust systems.

The absence of influence among the attitudinal beliefs reinforces the perception of integrity in relation to the possibility of corruption, along with the importance of whistleblowing for the preservation of patrimony. The influence of descriptive beliefs demonstrates a possible insensitivity on the training and promotion of explanatory information, but which can be reinforced by the example of other accounting SMEs. In addition, it contributes to the theory by demonstrating how the whistleblowers' relationships can be perceived in the light of the TPB in SME accounting firms.

Family management, as a determinant of control, can influence the omissions on reporting, since it stems from ties that transcend the work environment. These ambiguities are also perceived in the gender of the employee. In the sample, men showed less intention to report, as did the women who assume the role of promoting justice or the investigation of facts in SME accounting offices, since they usually face several challenges in the work environment. In larger companies, this perception turns out to be the opposite: men are the biggest contributors to whistleblowing, since it is a more hierarchical environment and has formalized structures.

These results allow a better understanding of the behavior of SME accounting professionals in regard to the practice of whistleblowing, which can reduce financial losses and organizational risks. This evidence contributes to professional practices and demonstrates the need for SME offices to invest in the formalization and structuration of control systems, raising awareness of its usefulness and importance in protecting the organizations, which can also be developed and promoted by professionals and governmental entities. Thus, these instruments can accomplish the proposed intention and allow the actual behavior to be more stable and planned. The evidence can help the accounting regulators to establish communication channels aimed at SMEs, which would reinforce whistleblowing among accounting professionals. The non-significant relationships demonstrate the gaps for professionals that must be clarified, especially regarding organizational benefits and the mechanisms and tools that facilitate the reporting.

The research has a limitation that derives from the survey's own nature, since it endorses its findings and conclusions in standardized and quantified answers, without retaining the feelings that transcend each individual. The criterion for selecting small accounting offices might be another limitation considering that the presence of only a few employees does not always reflect the structure, organization, and capital of a company, although we used a criterion already mentioned in the literature. New qualitative research is suggested to identify the perceptions and feelings behind these statistical relationships, along with the application of the survey in other cultural environments. This would enable the verification of which relationships are innate in the context of the accounting business, and which emerge from social, cultural, and ethnic influences.

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