

REVIEW ARTICLE

WHISTLE BLOWING: A NARRATIVE REVIEW AND FUTURE GUIDELINES

Arthur do Nascimento Ferreira Barros, Kate Elizabeth Horton, Luiz Carlos Marques dos Anjos

"Umbelina Cravo Texeira Lagioia"

Abstract : This narrative review aims to discuss future guidelines for whistleblowing. We focus on “what is whistleblowing and how has the literature defined it ?”; “what drives the whistle-blower?”; “how can financial rewards improve whistleblowing?”; and “what is the role of financial penalties in whistleblowing?” We also highlight gaps in the recent literature. Whistleblowing is a complex process that requires further research attention. Value orientation, sociodemographic and organizational characteristics, and financial incentives have been shown to explain and predict whistleblowing behaviour; however, the mixed results in past studies have led to a complicated and fragmented picture. This review aims to bring new insights to researchers in the whistleblowing field, so we can advance the literature, and, consequently, mitigate misconduct.

Keywords: Whistleblowing, Narrative Review, Whistle-blower Characteristics, Financial Incentives, Future Research.

Article Received: 15 Sept. 2022

Revised: 23 Sept. 2022

Accepted: 21 Oct. 2022

INTRODUCTION

Misconduct occurs everywhere and will probably happen in an organization that you know at some point in its life. Important factors in the fight against it are whistle-blowers, who report this kind of behaviour inside the organization. Issues that deal with the design and implementation of whistleblowing policies are becoming more urgent, and several corporate governance codes around the world now incorporate whistleblowing as part of their best practices [1-3].

The literature on corruption and whistleblowing has increased over the years [3,4], as you can see in Figures 1 and 2. However, research about the use of whistleblowing to fight corruption has tended to focus on developed countries rather than developing ones, despite the need for tools to combat corruption in places where this has historically been a problem such as Latin America and Africa [5,6]. For instance, of the 619 published papers about whistleblowing since 2000, almost 64% were in the USA, England, Australia and Canada.

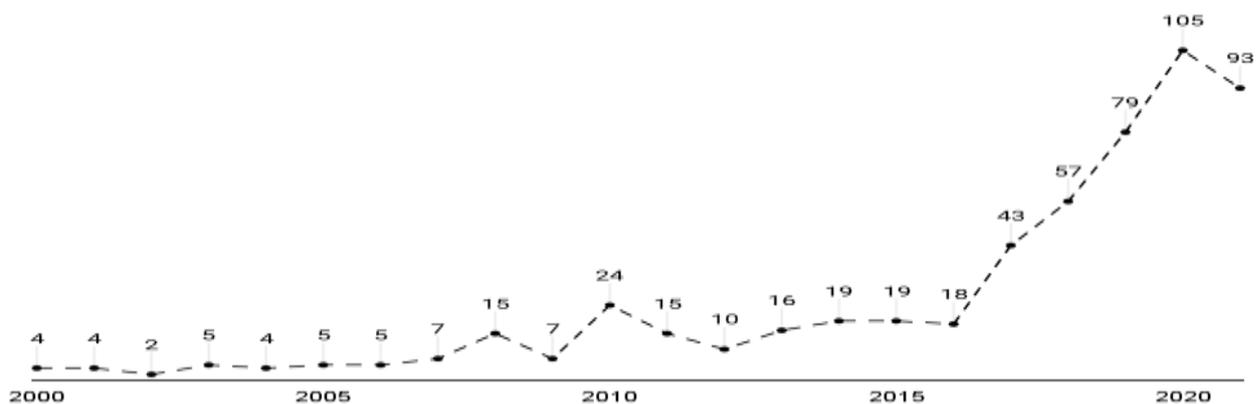


Figure 1: Number of published papers regarding Whistleblowing

Source: Web of Science (2022)

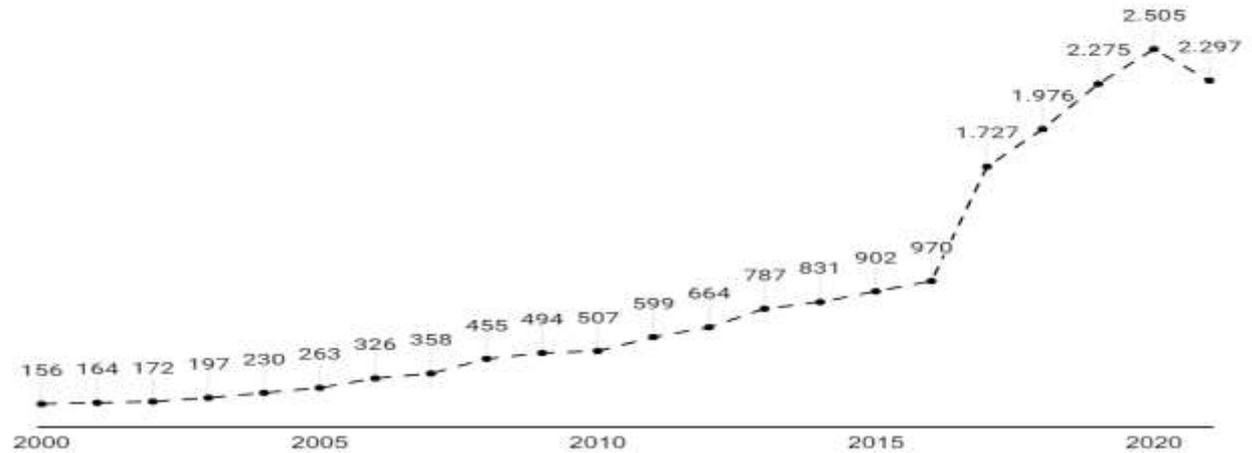


Figure 2: Number of published papers regarding corruption

Source: Web of Science (2022).

According to the Association of Certified Fraud Examiners, or ACFE, (2020), more than US\$3.6 billion was lost in occupational fraud cases in 2020. Organizational fraud is “fraud committed by individuals against the organizations that employ them” [7]. A typical fraud case lasts on average 14 months before detection [7]. The ACFE states that tips are the most common way of occupational fraud detection (43%), and half of them are provided by employees. The Ethics & Compliance Initiative (2020) survey with 5,000 employees in the USA also showed that 49% of respondents had observed some kind of misconduct, with an 86% rate of reporting.

Unfortunately, not every misconduct/occupational fraud/corruption that happens inside of an organization is reported, as we discuss further in the following text. A question that still remains unsolved in the whistleblowing literature is “what motivates whistleblowers?” [3]. Since the 80s researchers have tried to find characteristics that could predict and explain whistleblowing behaviour. They looked for sociodemographic, value orientation and organizational characteristics, but with conflicting results [8-15].

Because of the difficulty in predicting whistleblowing behaviour from these

highlighted characteristics, it makes sense that organizations want to implement incentives to motivate this behaviour [2]. Organizations that do not encourage whistleblowing lose on average US\$198,000, while those who do lose almost half of this (US\$100,000). Besides, these organizations that incentivize whistleblowing detect fraud six months earlier than those that do not, and on average frauds cost US\$8,300 per month, according to an ACFE (2020) report.

Organizations commonly use financial rewards to encourage whistleblowing behaviour [2,8,16], but how does it work? The decision to blow the whistle is a cost-benefit analysis [17] and the principal cost for the whistle-blower is the retaliation that he/she will suffer for making a complaint [18, 19]. With the possibility of receiving a reward, the benefits could overcome the costs of whistleblowing and this may increase the chances of an employee reporting misconduct. However, the implementation of financial rewards also increases the organization’s costs and may result in opportunistic behaviour among employees aimed at receiving the rewards [2, 16, 20].

Another approach that organizations use to encourage specific behaviour of their employees is financial penalties for non-

compliance [21-22]. This type of incentive applied in cases of whistleblowing has received little attention from researchers [23-25].

However, when it has been examined, the results are promising, indicating that financial penalties increase the probability of an employee blowing the whistle and that they are at least equally effective compared to financial rewards. The problem is that financial penalties also have issues such as causing an increase in corruption and cheating [2,21, 26,27, 28].

Scherbarth and Behringer [4] organized a systematic literature review of 18 papers that examined the design specifications developed for whistleblowing systems under the consideration of the risk of organizational insiders blowing the whistle. The authors excluded papers that studied situational and personal characteristics as predictors of potential and actual whistle-blowers, characteristics of the wrongdoing and the wrongdoer, and the ones that were concerned with the relationship between colleagues and supervisors.

Differently from Scherbarth and Behringer [4], we conduct a narrative review with the purpose of discussing future guidelines for whistleblowing, which is an important tool in the fight against corruption. We highlight gaps in the recent literature and directions for future research. We start by answering “what is whistleblowing and how has the literature defined it?”. We review the concepts of whistleblowing, and also consider the role of the whistle-blower and the importance of whistleblowing. We show that the general idea of whistleblowing has remained the same over time and whistle-blowers can help in the organization’s continuity.

Next, and in a different approach from Scherbarth and Behringer [4], we focus on “what drives the whistle-blower?”, where we highlight literature that has tried to find out what would predict whistleblowing behaviour in terms of

sociodemographic, value orientation and organizational characteristics. One of the most controversial areas in the whistleblowing literature. Besides, we present typologies of whistle-blowers, offered by researchers who have tried to clarify the intentions and reasons that motivate whistle-blowers. Then, we review evidence concerning a) how financial rewards could improve whistleblowing and b) the role of financial penalties in whistleblowing behaviour. We point out how these two types of financial incentives work and why they influence employees’ behaviour. In the following text, we highlight the disadvantages of each kind of incentive. Finally, we discuss limitations and directions for future research on whistleblowing.

Organizations are the main source of corruption, including misconduct and organizational fraud. However, they could also be an important part of the fight against it; principally through effective corporate governance practices and principles of accountability. Once organizations recognize their role in the fight against corruption, it is necessary to take action [29, 30].

Corporate corruption is not an exclusive problem for shareholders and owners, the literature shows its impact on consumers, investors, creditors, employees, and other members of society. For shareholders/owners, investors, and creditors, corruption will negatively impact the expected return of the investment. Consumers will buy products or services of poorer quality, which can harm their health for instance.

Employees are subject to resignation due to the lack of capital to maintain their contracts because of resource deviation. Finally, and perhaps most importantly, diverted resources will not be taxed, decreasing the government’s investment capacity for education, health, and basic sanitation, undermining social development, and increasing social inequality [31-33].

Our purpose with this review is to offer new insights into whistleblowing behaviour, specifically on how to encourage it.

As we pointed out, governance practices are an important tool in the fight against corruption, and organizations play a significant role in this fight. Therefore, improving whistleblowing is a step towards this objective. Discussing limitations and possible areas for future research could lead the way to improvements in this topic, as well as contribute to the development of understanding in organizations, which could benefit these organizations and their stakeholders, in the fight against corruption.

Table 1: Whistleblowing definition

Author(s)	Definition
Elliston et al. [37]	When an individual (member or former member) performs an action, or series of actions, intended to make the information public, which is made a matter of public record, and it is about possible or actual non-trivial wrongdoing in an organization.
Jubb [38]	A deliberate non-obligatory act of disclosure, which gets into public record and is made by a person who has or had privileged access to data or information of an organization, about non-trivial illegality or other wrongdoing whether actual, suspected or anticipated which implicates and is under the control of that organization, to an external entity having potential to rectify the wrongdoing.
Rehg et al.[36]	Whistleblowing occurs when the employee reports perceived wrongdoing, whether the wrongdoing affects the whistle-blower directly or indirectly.
Kumar and Santoro [39]	Whistleblowing is the act of disclosing information from a public or private organization with the purpose of revealing cases of professional misconduct, or the violation of democratic procedures, that are of immediate or even potential danger to the public interest.

As you can see (table 1), definitions of whistleblowing are quite similar and describe the act of an individual who reports misconduct/wrongdoing that happens inside an organization to a third party (internal or external to the organization).

This individual is called a “whistle-blower”, and the term was first officially used in 1963 to describe the behaviour of an American Department of Defence employee who disclosed information on

Narrative Review

What Is Whistleblowing and How the Literature Has Defined It?

Whistleblowing can be defined as “the disclosure by organizational members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action” [34]. Some studies [35-36] argue that this is the primary definition of whistleblowing. However, in the literature we can find other definitions as we show in Table 1:

people that he judged as threats to national security [17].

The idea of the whistle-blower, an individual who reports an irregularity to defend the public interest and justice, dates to very ancient times and has been present in various societies. The whistle-blower can be any employee, current or former, of an organization, their clients, or suppliers [3,17].

However, insiders are more likely to have precise information regarding irregularities, while outsiders are not subject to the same kinds of organizational responses, such as dismissal or retaliation, that employees may face.

According to Near and Miceli [1] an organization may incur potential costs when irregularities happen, which can be financial when revenues and funds are lost like in the case of fraud. Internal whistle-blowers can help the organization avoid or reduce these kinds of costs by making managers aware of indiscretions before they become public. This has two benefits: (1) it solves the problem before external stakeholders become aware of it, and (2) it signals to employees that the management wants to know about organizational problems. Therefore, employees may be more willing to share opportune information regarding irregularities with the management in the future, preventing negative publicity in the media.

Whistle-blowers tend to become icons in corporate democracies, ensuring the continuity of organizations, limiting dysfunctions and managing potential disputes [17]. That is why there is a tendency in whistleblowing legislation and policies to institutionalize the employee as a guardian of organizational legitimacy. For instance, whistle-blowers have assisted public institutions to detect and stop tax evasion and non-compliance, helping to protect tax collection and the integrity of the tax system. Once institutionalized, whistleblowing would be perceived as a duty instead of a right that must be protected [3,40].

Whistleblowing concerns irregularities perceived by a whistle-blower and irregularity, by definition, is determined by the employee that observes it. It can involve legal or illegal actions that are perceived by the employee as immoral or illegitimate. Therefore, the objective of whistleblowing is to stop the irregularity through its disclosure to someone with

authority or power to take action [1]. Whistle-blowers can help organizations to correct dangerous products, and labour conditions, to inhibit fraudulent practices and wastes that could harm clients and employees, decreasing sales, and causing costly litigations and negative publicity [18,34].

What Drives the Whistle-Blower?

Every whistleblowing situation is a process that unfolds over time and is thus not limited to any single event in which the employee reports the irregularity. This process always involves three key parts (Near & Miceli, 2016): (1) the wrongdoer (s), the (2) whistle-blower(s) and (3) the recipient(s) of the complaint who could be managers, human resource representatives, auditors, inspectors or even anonymous hotlines or external receivers of complaints of irregularities.

Near and Miceli [34] state that the process of whistleblowing is composed of four stages. In the first one, the whistle-blower must decide if the observed activity is illegal, immoral, or illegitimate. Whistle-blowers are more likely to consider an activity to be wrong if it conflicts with his/her own values or those stated by the organization and if the evidence on it is clear. The second stage regards the decision of reporting the irregularity and the factors that affect this decision. It is likely that whistle-blowers will only make an official report if the irregularity is considered serious and if they know where to file a complaint.

In the third stage, whistle-blowers must believe that the complaint will be effective and that no alternative measure could stop the irregularity. The personal situations of whistle-blowers are likely to influence their decisions, including factors such as whether or not they have alternative sources of financial and emotional support, and the prospective costs they will face if they make a complaint. In addition, their decision is likely to be affected by their individual characteristics and the degree to which

blowing the whistle is consistent with these characteristics. In the last stage, the organization can decide to ignore the whistle-blower or to take action in order to solve the irregularity or silence the whistle-blower [34].

In relation to the third stage, Expectancy Theory argues that whistleblowing is based on motivation, which is a function of the expected consequences of determined action [18, 34]. Miceli and Near [18] state that “an individual’s ‘force’ to blow the whistle would be a function of the perceived likelihood (‘expectancy’) that valued outcomes such as managerial attention... and cessation of wrongdoing... would follow whistleblowing action”.

Researchers have tried to uncover what would motivate people to blow the whistle

and have looked at whether sociodemographic characteristics could predict whistleblowing behaviour. However, the motivations of whistle-blowers are diverse and unpredictable. In every kind of organization, members blow the whistle for different reasons under different circumstances. Therefore, based on the literature, it is still not clear which characteristics influence the decision to blow the whistle and their signals [1, 40]. In Table 2 we present some results from Near and Miceli [15], who summarize characteristics of whistle-blowers highlighted in initial research in the field during the 80-90s, and more recent research so we can compare their findings:

Table 2: Whistle-blower characteristics

Author(s)	Age and tenure	Education	Male
Parmerlee et al. [41]		+	
Miceli and Near [42]		+	
Jensen [43]		-	
Soeken and Soeken [44]			+
Miceli and Near [45]	+		
Fritzsche [46]			Not significant
Graham [47]		+	+
Miceli, Dozier and Near [48]			
Miceli, Near and Schwenk [49]			+
Keenan and Sims [13]	Not significant		+
Brewer and Seiden [50]	+	+	
Dworkin and Baucus [51]	+		Not significant
Chiu [10]	Not significant	-	
Cassematis and Wortley [52]	Not significant		Not significant
Dhamija and Rai [53]	Not significant		Not significant
Rodrigues da Silva and Souza [54]	+		
Andon et al. [8]	+		-
Krambia-Kapardis [14]	+		+
Lee [55]	Not significant	Not significant	

+/- indicates that the characteristics are statistically significant and the direction regarding whistleblowing intention. Blank spaces mean that the author(s) did not study the variable in question.

Source: Based on Near and Miceli (1996).

Table 2 shows us the mixed results in the literature regarding sociodemographic characteristics of whistle-blowers. Some studies have found that whistle-blowers are more educated, male, and older, while others affirm that women are more likely

to become whistle-blowers or found that gender was not a significant factor. An

interesting finding was provided by Mesmer-Magnus and Viswesvaran [56]. They analysed people who intended to

blow the whistle and actual whistle-blowers, and their results point out that gender and tenure were related to whistle-blowers but were not related to people who had the intention of doing it.

Due to the difficult and complex nature of the decision to blow the whistle, [57]

researchers have tried to understand the relationship between value orientation/organizational characteristics and whistleblowing intention. In table 3 we show some of the conflicting results that the literature has found until now:

Table 3: Value orientation and organizational characteristics in whistleblowing intention

Author(s)	Extraversion	Moral Judgment	Leadership	Individualism	Idealism	Locus
Brabeck [9]		+				
Miceli, Near and Schwenk [49]		-				
Keenan and Sims [13]		+				
Chiu [10]		+				
Bjørkelo, Einarsen and Matthiesen [29]	+					
Nayir and Herzig [58]				+	-	
Park, Blenkinsopp and Park [59]	Not significant	+				
Liu, Liao and Wei [60]			+			
Vasconcelos [61]		Not significant				+ / -
Dhamija and Rai [53]				Not significant	Not significant	
Cintya and Yustina [11]			+/- (Not significant)			
Hardi, Wiguna and Mela [12]						+

Source: Elaborated by the author

If we consider which value orientation characteristics affect whistleblowing behaviour, we can see that a number of different findings have been highlighted and there are many divergent results (Table 3). For example, characteristics including moral judgment, the organizational and leadership environment have been found to be important, but there are conflicting accounts of whether these have positive, negative or non-significant effects on whistleblowing behaviour.

To clarify the main motivations of whistle-blowers, many authors have tried to develop a typology of the characteristics of employees who typically report irregularities [17]. The first was Glazer [62], who defined three types of whistle-blowers based on a literature review. (I) The unbending resistors: They warn of unethical or illegal behaviour that they may have observed.

They maintain a strict commitment to their moral principles, are immune to flattery or coercion. They usually start with internal complaints but can progress to external complaints if the matter remains unresolved; (II) The implicated protestors: They expose the problem internally but fear the legal consequences. They are flexible in their approach and willing to give up if they are forced to do so. They are sometimes attracted to the reported behaviour and fear that their responsibility may be legally contested; and (III) The reluctant collaborators: Sometimes they are deeply involved in the behaviour that they condemn.

They can try to remedy this through public or personal atonement after they leave the organization. While working at the company, however, they remain silent.

More recently, Heumann *et. al.* [63] proposed another typology combining

whistle-blower personalities, their goals, motivations, whistleblowing causes and the success of the complaint. They defined 5 types of whistle-blowers (Table 4):

Table 4: Heumann’s et al. whistle-blower typology

Whistle-blower	Characteristics
The altruist	He/she acts as the organization's conscience and expects nothing more than to rectify the offense. He/she acts mainly for ethical reasons. Although s/he can sometimes be promoted, s/he can also be subject to severe reprisals. Morality is fundamental to these individuals. However, as there are many moral principles, their actions can be glorified by one part of society and vilified by another.
The avenger	He/she reports fraud, management problems, illegal activities or personal complaints in order to take revenge on an individual, team or organization that has offended or humiliated him/her. The reason is therefore associated with individual anger and dissatisfaction and is not based on a genuine interest in risk for the company, even if the company may benefit indirectly from their information.
The organization man/woman	He/she reports what s/he considers to be illegal or improper conduct for fear of the company. This employee considers that his/her approach is pure and protective of the company, pointing out the consequences of illegal or improper conduct. S/he acts in relation to what s/he perceives to be the organization's mission in relation to its technical, procedural and ethical issues. He/she is often described in a negative way as a “know-it-all”.
The alarmist	Is an employee who constantly complains about the moral risks to the public sphere of one or more of the policies. Often, not based on evidence, his/her statements are unreliable, and he/she is almost always wrong. In the long run, it can lose all credibility because the reported acts are neither illegal nor inappropriate and do not pose a threat to the public/general interest. In fact, no one usually takes any action to manage such a report, which is problematic if some of the information is correct.
The bounty hunter	He/she is motivated mainly by the money that he/she can obtain, since in some countries there is financial compensation from governments to compensate for the risk to their career and to expose themselves to potential reprisals through the disclosure of illegal practices.

Source: Hennequin [17] and Heumann et al. [63]

Among the typologies, we have the “altruist” and the “unbending resistor”, motivated by their moral principles and ethical reasons. The “reluctant collaborator”, who could be involved in wrongdoing but will only report when he/she has left the organization. In addition, we also have the “bounty hunter”, he/she will be driven by rewards offered in exchange for information that could stop wrongdoing in the company [62, 63].

Typically, the decision to blow the whistle would be the result of a cost-benefit analysis (i.e., the benefit of a clear

conscience against the disapproval of colleagues). This suggests that organizations and individuals can

influence the costs and benefits of a whistle-blower, and therefore that the level and nature of whistleblowing will change accordingly [17,18]. Once the costs, like retaliation, are higher than the benefits, which at first involve moral issues, organizations will often financially reward whistle-blowers to increase the likelihood of someone reporting an irregularity.

When organizations increase transparency and accountability, whistleblowing seems to be one of the most effective governance mechanisms to reduce informational asymmetry between stakeholders [17] making it worth the additional cost to increase it.

Could Financial Rewards Improve Whistleblowing?

Zedek [64] states that researchers worried about human judgment and the decision-making process are interested in the processing of the information that precedes and biases the decision/judgment. The basic question is: How does a decision-maker use the available information when he/she faces alternative behaviours to choose from? As we discussed previously, in a whistleblowing situation the motivations that cause employees to blow the whistle are varied and unpredictable [1].

Agency theory proposes that both parts of a contract (principals and agents) will try to maximize their welfare. Therefore, there is reason to believe that the agent(s) will not always perform in the best interests of the principal(s) [65]. Lambert [66] defines the principals' utility function as $G[x - s]$, where x denotes the company's outcome and s the agent's compensation.

Principals are assumed to prefer more money than less and to be risk-averse or neutral. Once the agent(s) is (are) the person (s) making decisions that will impact the company's performance, he/she could be monetarily encouraged to make the best decisions on the principal's behalf.

Bonuses are commonly used as a tool to improve employees' performance [2]. Therefore, the same can be applied to increase the likelihood of someone blowing the whistle when faced with an irregularity. The US False Claims Act 1989 offered a percentage of the amount that the government could recover in fraud schemes to whistle-blowers who provided information, which introduced a

new perspective where information has priority over motivation [3].

Whistleblowing rewards would allow the principal to acquire private information from his/her employee. Besides, the implementation of rewards allows the principal to establish control mechanisms in situations where there is a lack of some superior figure [2]. Stikeleather [20] provides a cost-benefit analysis that indicates the liquid economic effect of the principal by offering financial incentives, which depend on the company's whistleblowing rate. Imagine that an employer does not provide financial incentives for whistleblowing, therefore, the liquid economic value of the complaints that the employer receives is:

$$Net\ Value_{no\ reward} = n * \underline{V}$$

In which n is the number of irregularities observed and reported by employees and \underline{V} is the average economic value to the employer for each complaint. Further, imagine that the employer starts to pay an average incentive of \underline{r} to employees that report a trustful complaint. Besides, the incentive increases the number of complaints received by Δ . In this case, the liquid economic value of the complaints that the employer receives is:

$$Net\ Value_{reward} = (n + \Delta) * (\underline{V} - \underline{r})$$

Therefore, the liquid change in the employer's welfare when he/she offers the financial incentive is:

$$Change\ in\ Employer\ Welfare = (\Delta * \underline{V}) - \underline{r}(n + \Delta)$$

The expression $(\Delta * \underline{V})$ is the incremental economic benefit that the employer receives by offering a financial incentive, once the number of complaints increases in Δ and each complaint values \underline{V} , on average, to the employer. $\underline{r}(n + \Delta)$ is the incremental economic cost when the employer offers a financial incentive, once the employer pays an average incentive of \underline{r} for each one of the $(n + \Delta)$ complaints.

However, Stikeleather [20] argues that the cost-benefit relation when the employer offers a financial incentive depends on the whistleblowing rate previously, once the objective of implementing that incentive is to increase the number of trustful complaints and, consequently, the likelihood to prevent wrongdoing inside the firm. Besides, the employers will incur costs in the payment and the management of these incentives. As Lambert [66] stated: “each dollar paid to the agent as compensation is a dollar less for the principal”.

On the other side of the contract, whistleblowers usually report that financial incentives play an important role in their decisions to blow the whistle, and the literature has shown that financial incentives can increase the intention of an employee to report wrongdoing [8,16, 23,19,20].

For instance, Dyck *et al.* [67] found that in the healthcare system, an industry in which it is more common to have financial incentives for whistle-blowers as most of the income is from government purchases, 41% of frauds are revealed by employees. According to their study, financial incentives could increase the chance of an employee blowing the whistle by 23%.

Employees need rewards to blow the whistle because, without a reason or justification, the risks of doing it could overcome the potential intrinsic motivation of individuals [2].

The literature proposes that before the decision to blow the whistle, the individual will conduct a cost-benefit analysis. To do so, the individual considers the consequences, including the possibility that dismissal, threats, and litigation will follow, and the potential benefits, such as rewards and the public interest.

Rewards for whistleblowing can provide additional protection against retaliation costs. Therefore, the reward must

increase the likelihood of employees reporting observed wrongdoing, including situations where the employee is already protected by any cost involving whistleblowing [16, 19, 20].

Despite most research finding a positive relationship between rewards and whistleblowing, Brink *et al.* [68] discovered that an internal incentive decreases the likelihood of employees reporting to the SEC (The U.S. Securities and Exchanges Commission) when their evidence of wrongdoing is weak. However, when the evidence is strong, rewards increase the chances of whistleblowing. Therefore, the motivation provided by rewards can be attached to other factors that researchers need to be aware of in order to correctly determine how financial rewards influence whistleblowing behaviour.

According to Rose *et. al.* [19], a fundamental issue for both theory and practice is the compensation structure that will align the interests of employers and potential whistle-blowers. Berger *et al.* [16] and Latan *et. al.* [69] argue that offering rewards combined with a minimum threshold could inhibit whistleblowing for minor wrongdoing.

The authors discuss that, unconsciously, a minimum threshold will incentivize whistle-blowers to strategically delay a relatively small ongoing wrongdoing complaint, meaning that the wrongdoing reaches a higher level to receive a higher financial reward. Therefore, rewards for whistleblowing must be significantly large as small ones could negatively impact employees' internal ethical motivations, without increasing the whistleblowing behaviour [2].

There is no consensus about if or when rewards should be used. Employees could be tempted to blow the whistle in unjustified situations just to receive the reward. Therefore, bonuses wrongly paid can be consequences of rewards, which also represent a financial concern to the organization [2, 20].

Furthermore, rewards could: (1) increase the number of false complaints; (2) negatively impact the relationship between employees due to a lack of trust and decrease motivation in the workplace; (3) force whistle-blowers to change sector in a company or city due to personal harassment and even result in them being fired [2,67].

Teichmann and Falker [2] interviewed compliance experts and argued that to effectively mitigate corruption, a system of three pillars could be implemented. The three pillars consist of bonuses for both compliance and whistleblowing, and financial penalties for noncompliance. According to Berger *et al.* [16] motivational crowding theory, situations that are normally motivated by ethical issues, like whistleblowing, are remodelled as an economic transaction when financial incentives or penalties are introduced.

We have two kinds of motivations, according to psychology, intrinsic (related to the sense of moral or civic duty) and extrinsic (associated with the behaviour that is driven by external factors like rewards or penalties). Therefore, when financial incentives (rewards or penalties) are on the table, we change our motivational properties in a whistleblowing decision excluding the influence of intrinsic motivation.

Financial penalties, normatively, are considered effective in the discouragement of undesirable behaviours. Like rewards, a system of financial penalties leads employees to adopt an economic-decision framework where their cooperation is determined by a cost-benefit analysis that takes into account the penalty's force, without compensation costs for the employer [28].

What is The Role of Financial Penalties in Whistleblowing?

Punishment in social dilemmas consists of a costly boycott mechanism for lawbreakers. Regarding financial penalties, it requests the monetary

investment of an individual (the norm violator) to not reduce the income of another person, which provides the opportunity to punish previous non-compliance behaviour and generates equality among all group members [70].

Financial penalties are part of our lives, they discourage undesirable behaviour associating it with punishment and are seen as an effective mechanism to encourage people to follow social conventions [71,72]. Countries like Australia, Canada, the U.K. and the U.S.A. enforce penalties for those who do not report money laundering, and the Big 4 for their partners/employees who do not reveal known violations that break the law, regulations, or companies' policies [23].

Nosenzo [26] argues that employees work harder when the incentives are seen as rights that could be lost for not behaving as expected than when they are presented as extra rewards that the employee earns when he/she behaves as the employer expects. Therefore, punishment for non-compliance could increase cooperation in complex networks like organizations, and this cooperation evolves inside the environment in question [72,28].

The literature has given little attention to studies of (financial) penalties for whistleblowing [23]. According to Teichmann and Falker [2], the implementation of a non-compliance penalty would be a relatively new concept for most employees. The authors argue that having a part of your compensation removed because you did not behave as expected is unusual, inside a company. Therefore, it would probably be necessary to implement a transition period to apply a penalty system.

Studies involving whistleblowing and penalties are scarce [23]. To the best of our knowledge, there are three. The first is the one by Feldman and Lobel [25], which used several experimental surveys with more than 2,000 employees and tried to examine four prototypical legal

mechanisms that were designed to increase individual reporting of illegal acts in the work environment (anti-retaliation protection, legal duty to report, liability fines, and monetary incentives).

The results indicate that when the misconduct is severe, the intention to blow the whistle among the mechanisms is equally high.

The second one is the study of Boo *et. al.* [23], which examined the joint effects of incentive schemes (rewards vs. penalties) on the reporting of wrongdoing when the whistle-blower has a close relationship with the wrongdoer. They used 90 auditors from a Big 4 firm in Singapore and found that the likelihood of blowing the whistle on someone close to you is higher in the presence of a penalty system compared to a rewarding one.

The last is the one of Chen *et. al.* [24], who examined whether the effectiveness of incentives encouraging whistleblowing

is a joint function of the framing of rewards or penalties, and the strength of descriptive norms supporting whistleblowing. They performed a lab experiment using the z-Tree software on 98 undergraduate students. The results show that penalties increase whistleblowing behaviour, compared to rewards when descriptive norms supporting whistleblowing are stronger.

Despite the few works about whistleblowing, the study of penalties in the corporate world is not new. For instance, studies have found that penalties can decrease environmental crimes [21,73] and accounting frauds [74] However, regardless of positive results, penalties also have downsides:

Table 5: Financial penalties downsides

Counterpoints	Author(s)
Small penalties do not increase the desirable behaviour	Tenbrunsel and Messick [28]
Even an estimated risk of a penalty could not stop misconduct in an organization	Piquero et al. [27]
Financial penalties contracts are seen as more unfair and controllers than rewards one	Nosenzo [26]
Penalties lead to corruption and cheating inside the organization	
An ideal penalty function would never exist	Barrett et al. [21]
Financial penalties could harm the independence of whistleblowing systems	Teichmann and Falker [2]

Source: Elaborated by the author

Teichmann and Falker [2] argue that for the effective elimination of corruption inside an organization, a system that combines rewards and penalties is necessary. The authors propose that this type of system could mitigate the individual problems of reward/penalty systems alone and could increase the willingness of a member of the organization to blow the whistle compared to where there are only one of these systems [22, 23].

DISCUSSION

This narrative review represents an effort to synthesize and provide an

overview of the whistleblowing literature. We know that the decision to blow the whistle is a cost-benefit analysis, where the potential whistle-blower tries to measure the pros and cons of his/her decision. Usually, retaliation represents the biggest cost, which may include the need for a resignation or dismissal and/or the undermining of an employee's image among peers. In addition, at the beginning, benefits are tied to moral and ethical issues. Therefore, at first, blowing the whistle may not seem to be a good choice.

Researchers have tried to find out what would explain and predict whistleblowing behaviour, in terms of sociodemographic, value orientation and organizational characteristics, as shown in Tables 2 and 3. However, the results have presented conflicting findings. Therefore, we highlight the limitations of the recent literature on the issue, and directions for future research.

The attempt to connect sociodemographic characteristics with whistleblowing intentions dates to the 80s [43, 42, 45, 41, 44]. However, as we presented, the results are conflicting. Trying to associate sociodemographic characteristics, like age, gender and education, to whistleblowing behaviour seems inaccurate. Let's take into account the work of Rodrigues da Silva and Souza [54], they used both professionals and students in their treatment and control groups.

Their results show that gender, tenure and age did not influence whistleblowing intentions. However, Dhamija and Rai [53] suggest that whistleblowing intentions of middle-aged accountants are different from older ones (45 or above) when there is fear of retaliation [75]. The same happens when you compare older male and female accountants in the presence of fear of retaliation. Gender and age influence behaviour.

Research suggests that it is more likely that a man reports a complaint than a woman due to the fear of retaliation inside organizations; although, older women could react differently [76]. Future research should address these contexts (i.e., an interaction between age and gender) to evaluate when sociodemographic characteristics impact whistleblowing behaviour instead of studying them individually.

Cintya and Yustina [11], and Liu *et al.* [60] examined the impact of leadership on whistleblowing. They used different approaches for leadership; the former applied the concept of authentic leadership while the latter considered

ethical leadership. "Authentic leaders demonstrate a passion for their purpose, practice their values consistently, and lead with their hearts as well as their heads" [77]. Ethical leadership is "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making" [78].

Researchers must be aware of these different concepts, not just for leadership but for other aspects, and how that difference could impact whistleblowing behaviour. Based on the definition of Brown *et al.* [78] it could happen that ethical leaders may not encourage whistleblowing. According to Rehg *et al.* [36], a company can strategically incentivize high-level employees to perpetuate wrongdoing to remain competitive.

Therefore, due to the normalization and institutionalization of misconduct, whistleblowing may not be considered a normatively appropriate behaviour in some contexts [79]. The same could be applied to authentic leaders. Taking into account the concept of George *et al.* (2007), in which an authentic leader is expected to practice his/her values, he/she could perform immoral activities (from the perspective of others) if he/she believes that the action is justifiable [80]. Tourish and Craig [79] state that "corrupt individuals tend not to view themselves as corrupt".

Such elements (value orientation, organizational characteristics) need to be studied considering group (organization, subunits, peers) and individual characteristics. Besides, as the same variables can be measured differently, it is important to specify how the variables are operationalized. Hardi *et al.* [12] and Vasconcelos [61] analysed the impact of control locus on whistleblowing. They found divergent results, but Hardi *et al.* [12] do not explain how they measured

locus of control, which could explain the different results. It would be interesting to replicate the results with different instruments.

The most common issue addressed by recent works is the sample size [8,11,12]. According to the authors, that could be one of the principal reasons for the inconsistencies between researchers' findings. Therefore, for new works on the matter, it would be important to increase the sample or try to replicate the findings with larger samples. Small samples could lead researchers to erroneous conclusions, Bearden *et al.* [80] state that sample smaller than 200 should not be used. In addition, the values of studied variables tend to increase with the sample size. Therefore, results comparisons across different samples can be risky [80, 81].

One issue that Cintya and Yustina [11] report relates to the specificity of the sample. According to them, a very specific sample, both in occupation and nationality, could bias the results and harm generalization. Most studies use accountants/auditors in countries in which these professions have the legal duty to report some kind of misconduct. However, whistleblowing behaviour is expected for all employees. Therefore, studies cannot ensure that their findings could be applicable to other occupations.

Another common population used in whistleblowing literature is students, more specifically accounting students, due to their easy access by researchers that are, mostly, professors. The problem here is that students do not reflect the characteristics of the workforce. Future research would thus benefit from studying actual whistle-blowers, although intentions could be the best predictor of behaviour [11, 53] or a wider range of occupations and nationalities, because culture is associated with behaviour [81]

Andon *et al.* [8], and Dhamija and Rai [53] express concern with the specific scenarios that respondents are presented

with. Specific scenarios, wrongdoing, or situations, could cause responses that may be specific to that scenario, therefore, biasing the results. Dhamija and Rai [53] suggest the "use of multiple scenarios with different types of wrongdoing".

Another limitation highlighted in the extant literature relates to the instrument(s) used to measure the dependent variable, which is a common problem of research that uses this kind of methodology. Cintya and Yustina [11] state that "measuring whistleblowing is extremely hard and rarely done".

According to Deegan and Unerman [82], in behavioural accounting research it is common that many studies that have investigated similar questions have found conflicting results. They also argue that it is difficult or impossible to verify the causes of the inconsistencies in the results due to the different numbers of variables in each study, how they are measured, and the different scenarios where the research is realized.

Other suggestions that the researchers point out for future research are (1) to use longitudinal methods, (2) to go further in the investigation of the relationship between retaliation and value orientation with whistleblowing intention [11,53,55]; (3) to understand how the seriousness of the wrongdoing interacts with incentives of whistleblowing, (4) to manipulate elements of harm and moral wrongfulness [8]; (5) to investigate reporting mechanisms [14], organizational structure and design, political control [55], ethical leadership, affective commitment and personality [11].

Studies that have focused on the role of financial incentives on whistleblowing have pointed out similar limitations. For instance, researchers often rely on surveys and hypothetical scenarios to analyse whistleblowing. However, these methods do not allow a complete understanding of strategic interactions

between employers and employees, or the economic outcomes of their decisions [24,20]. Field studies could determine whether the findings can be supported in the corporate world [23].

Authors also highlight that most of the time a single form of misconduct is taken into consideration, like asset misappropriation, with the justification that this is one of the most economically significant and common types of internal misconduct, and that the benefits of recovering are relatively quantifiable. The problem is that potential whistleblowers could make different decisions when they face different kinds of misconduct such as health and safety violations, financial statements fraud, abuse of power, etc. [16,20].

For future research, to see if the findings can be generalized, studies could apply different scenarios with different types of misconduct/rewards/penalties and sizes (larger or smaller) [16,23]. They can also try to manipulate the presence of costs in whistleblowing, once they decrease the intention to blow the whistle [16,20]. Besides, it would be valuable to compare whistleblowing intentions between rewards on an absolute basis, like a fixed amount of cash, or proportional to the economic benefit received by the organization such as a percentage of the recovered amounts [20].

After reading the literature on financial incentives, we believe that the greatest opportunity, and challenge, for future research would be the implementation of a series of field experiments [23,24]. According to Lourenço [83], field experiments are also subject to criticism. They do not allow the researcher to have the same level of control as a laboratory experiment; once they usually are conducted in a single organization, their results are hard to generalize; researchers do not randomly select the partner organization, they are self-selected; it is difficult to replicate; and

they focus on a narrow range of topics [83].

Boo *et al.* [23] argue that their experiment was “conducted in a controlled setting without real consequences for rewards and sanctions”, while Chen *et al.* [24] state that their “experimental study abstracts away from many factors in the real world”. Both studies address the importance of trying to conduct an experiment in the real business world, where it would be possible to increase external validity and impact organizations. However, they point out that as the capacity of an organization to enforce penalties may vary, implementing financial incentives (rewards or penalties) for whistleblowing involves uncertainty from the (potential) whistle-blower perspective and complications [23, 24].

Another perspective that future research could look at is the use of a combination of both incentives, taking into account financial and nonfinancial costs versus their benefits [23]. According to Teichmann and Falker [2], for effective elimination of corruption, it would be necessary to implement a system that combines rewards for compliance and whistleblowing, and penalties for non-compliance.

As we have commented, most whistleblowing studies focus on developed countries and not on developing ones [6] even though the main goal of whistleblowing is to mitigate illegal, immoral and illegitimate practices, and corruption in general; which are more common in developing countries or emerging markets [84, 60,85] as you can see in Figure 1.

Okafor *et al.* [6] argue that there is a lack of interest in research on accounting and accountability in Africa, despite the fact that the continent “provides immense opportunities for empirical accounting research on anticorruption intervention”. In the same way, Aguinis *et al.* [86] state that “Latin America offers unique opportunities for conducting research

that forces us to rethink baseline assumptions and theories on individual

behaviour, firms, organizations, markets and institutions”.

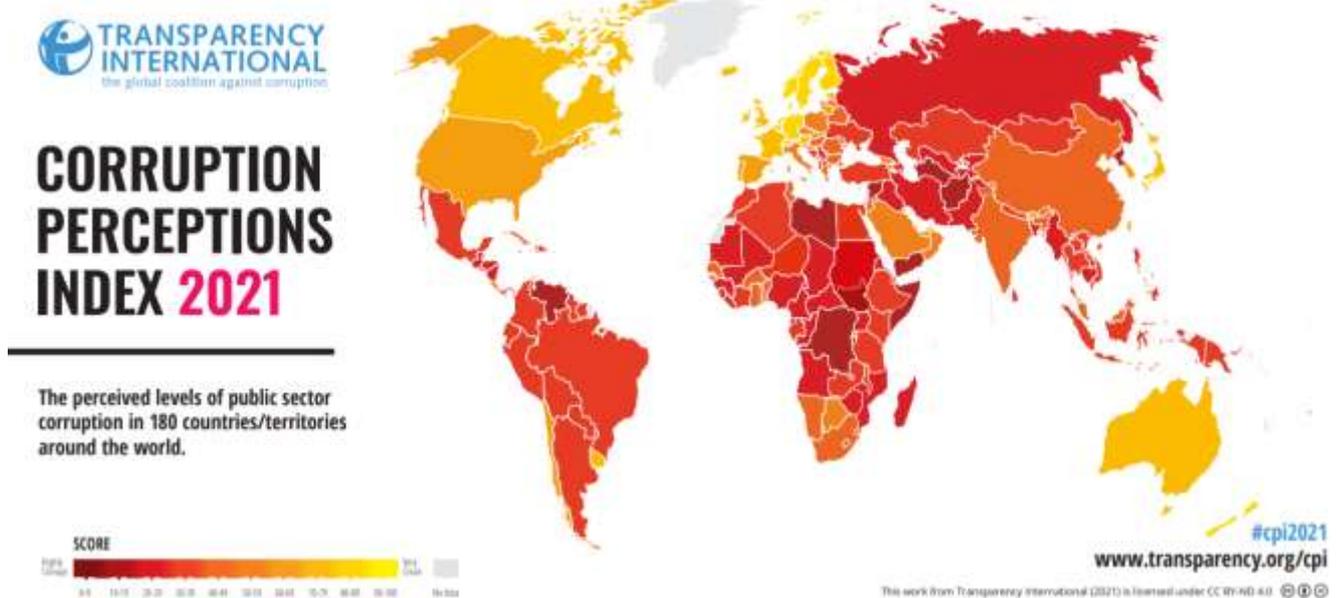


Figure 3: Corruption Perception Index (2021)

Source: Transparency International (2021)

Regardless of the focus on developed countries, a literature review to assess the importance and scope of whistleblowing across 4 continents (Africa, America, Asia, Europe and Oceania) and, at the time, they verified that 83 countries had some kind of whistleblowing protection legislation. In addition, they highlighted some whistleblowing research in developing countries like India, Malaysia, Pakistan, Turkey, Taiwan and Brazil. Therefore, we suggest that future whistleblowing research pays close attention to emerging markets.

Small and medium-sized enterprises (SMEs) have a crucial role in the economic development of any nation, and are drivers of economic growth especially in developing and emerging countries [87, 88, 89]. SMEs' growth is often impacted by corruption, which harms emerging countries' development [90, 89]. However, literature about whistleblowing in SMEs is, to the best of our knowledge, scarce. In general, data on corruption in SMEs is more difficult to access compared with data from large-sized companies. We believe that whistleblowing research

involving SMEs would be worthwhile, especially with regards to how these firms could implement a whistleblowing channel, the difficulties that they would face, how to guarantee anonymity, and how incentives could be applied (taking into consideration the lower economic power of SMEs compared with large-sized companies).

This review could help researchers in the whistleblowing field to improve theory in order to better understand and encourage its behaviour. Once we fill the gaps (or most of them) and consolidate the literature, this knowledge can be implemented in organizations to help them in the fight against corruption. The role of organizations in fighting corruption must not be underestimated; Corruption results in several hidden costs that could reduce any gain from it. Therefore, organizations should avoid or mitigate opportunities that allow the occurrence of illicit practices [30].

Regarding the limitations of this paper, narrative reviews refer to “an attempt to summarize the literature in a way which is not explicitly systematic” [91].

Although they are, by far, the most popular type of academic review among authors and readers, the principal criticism is their subjectivity [91,92]. The chosen papers were not based on a systematic search, limiting the scope of the studied literature [93-99].

CONCLUSION

This narrative review has the purpose of discussing future guidelines for whistleblowing, which is an important governance practice in the fight against corruption. Therefore, better comprehension is essential to discourage this kind of behaviour. We have highlighted gaps in the recent literature and directions for future research. We tried to answer four key questions; (1) “what is whistleblowing and how has the literature defined it?” (2) “what drives the whistle-blower?” (3) “how can financial rewards improve whistleblowing?” and (4) “what is the role of financial penalties in whistleblowing?” Also, we discussed limitations and directions for future research on whistleblowing.

Although whistleblowing has been studied for almost 40 years, we do not fully understand its process. There are still conflicting accounts regarding whether age, tenure, or gender are determinants in whistleblowing, or which organizational characteristics and value orientations can influence whistleblowing behaviour. Financial incentives could be a way to predict this kind of behaviour, but some issues need better clarification (e.g., wrongdoer status, close relationships, reporting channels etc.). Incentives have negative consequences for organizations. How to overcome them is a challenge.

Most of these issues are common in social/behavioural research. To blow the whistle is a difficult and complex process that includes “n” variables, and most of them cannot be observed. Therefore, it is natural that we face these kinds of problems due to ontological issues and methodological limitations. To mitigate it, future research could use mixed-

method research in an attempt to explore as many perspectives on the problem as possible.

Most of the whistleblowing research is quantitative. Even though these studies use experiments to capture the impact of certain variables on whistleblowing intention/behaviour, they suffer with sample issues of size and specificity. Due to ease of access, students are commonly used in samples, specifically accounting ones, bringing external validity problems. The experiments usually are performed through online surveys or laboratories, which allow the researcher to control, or at least to try to control, some aspects in the environment. However, these situations in the real world are not as controlled as in a university laboratory. Field experiments could work as a solution to better understand whistleblowing behaviour, but they also have limitations, and they are hard to perform.

Despite significant results, it is hard to affirm what would drive whistleblowing behaviour. Contextual, external and internal/intrinsic factors are likely to work together during the whistleblowing process. Moderating variables (e.g., external/internal whistleblowing channels) can change the expected result of the decision to blow the whistle. To better understand the whistleblowing process, future research needs to develop models, which reflect this complexity.

Whistleblowing should be understood in specific situations instead of as a universal law. Whistleblowing decisions will vary according to market conditions (developed, developing, or underdeveloped), legal system (common and civil law), laws on whistleblowing protection, organizational aspects (climate, norms, whistleblowing channels, etc.), wrongdoer aspects, wrongdoing seriousness, and value orientations, for instance.

As we discussed, one limitation of this work concerns its (narrative) approach. We performed a narrative review with a

subjective perspective, rather than adopting a systematic study. Future reviews should focus on specific regions like South America, and Africa, which have received limited attention in the past. Although the majority of papers published on these contexts are not published in top journals, it would be valuable to summarize the findings and compare them to other contexts like USA and Europe. Also, the study of whistleblowing behaviour in SMEs would contribute to the literature because they have economic and social representation, therefore, a review on the subject would be important.

REFERENCES

1. Near J.P., Miceli M.P. (2016) After the wrongdoing: What managers should know about whistleblowing. *Business Horizons*, 59(1):105-114. <https://doi.org/10.1016/j.bushor.2015.09.007>
2. Teichmann F.M., Falker M. C. (2020) Whistleblowing incentives. *Journal of Financial Crime*. <https://doi.org/10.1108/JFC-10-2019-0132>
3. Vandekerckhove W., Lewis, D. (2012) The content of whistleblowing Procedures: A critical review of recent official guidelines. *Journal of Business Ethics*, 108:253-264.
4. Scherbarth S., Behringer S. (2021) Whistleblowing systems: A systematic literature review on the design specifications and the consideration of the risk for organizational insiders to blow the whistle. *Corporate Ownership and Control*, 18(2):60-73. <https://doi.org/10.22495/cocv18i2art5>
5. Tomo A., De Nito E., Canonico P., Mangia G., Consiglio S. (2020) Stories of grey zone between corruption and whistleblowing: Insights from the Italian public administration. *Meditari Accountancy Research*, 28(6):1037-1058. <https://doi.org/10.1108/MEDAR-11-2018-0405>
6. Okafor O.N., Adebisi F. A., Opara M., Okafor C. B. (2020) Deployment of whistleblowing as an accountability mechanism to curb corruption and fraud in a developing democracy. *Accounting, Auditing and Accountability Journal*, 33(6):1335-1366. <https://doi.org/10.1108/AAAJ-12-2018-3780>
7. Saenz C., Brown H. (2018) The disclosure of anticorruption aspects in companies of the construction sector: Main companies worldwide and in Latin America. *Journal of Cleaner Production*, 196:259-272. <https://doi.org/10.1016/j.jclepro.2018.06.045>
8. Andon P., Free C., Jidin R., Monroe G. S., Turner M. J. (2018) The impact of financial incentives and perceptions of seriousness on whistleblowing intention. *Journal of Business Ethics*, 151(1):165-178. <https://doi.org/10.1007/s10551-016-3215-6>
9. Brabeck M. (1984) Ethical characteristics of whistle blowers. *Journal of Research in Personality*, 18(1):41-53. [https://doi.org/10.1016/0092-6566\(84\)90037-0](https://doi.org/10.1016/0092-6566(84)90037-0)
10. Chiu R. K. (2003) Ethical judgment and whistleblowing intention: Examining the moderating role of locus of control. *Journal of Business Ethics*, 43:65-74.
11. Cintya L. Yustina A.I. (2019) From intention to action in whistleblowing: Examining ethical leadership and affective commitment of accountants in Indonesia. *International Journal of Business*, 24(4):412-433.
12. Hardi H., Wiguna M., Mela N.F. (2020) The Factors Affecting Intention to Internal Whistleblowing: An Idea of Free Cheating Environment. *IOP Conference Series: Earth and Environmental Science*, 469(1). <https://doi.org/10.1088/1755-1315/469/1/012022>
13. Keenan J., Sims R.L. (1995) The organizational and intrapersonal influences on whistleblowing. *National Academy of Management Meeting, Social Issues in Management Division*. https://nsuworks.nova.edu/hcbe_facpres/520/
14. Krambia-Kapardis M. (2020) An exploratory empirical study of whistleblowing and whistleblowers. *Journal of Financial Crime*, 27(3):755-770. <https://doi.org/10.1108/JFC-03-2020-0042>
15. Near J.P., Miceli M.P. (1996) Whistleblowing: Myth and reality. *Journal of Management*, 22(3):507-526.

- [https://doi.org/10.1016/S0149-2063\(96\)90034-3](https://doi.org/10.1016/S0149-2063(96)90034-3)
16. Berger L., Perreault S., Wainberg J. (2017) Hijacking the moral imperative: How financial incentives can discourage whistleblower reporting. *Auditing: A Journal of Practice & Theory*, 36(3):1–14. <https://doi.org/10.2308/ajpt-51663>
 17. Hennequin E. (2020) What motivates internal whistleblowing? A typology adapted to the French context. *European Management Journal*, 38(5):804-813. <https://doi.org/10.1016/j.emj.2020.03.005>
 18. Miceli M.P., Near J.P. (1985) characteristics of organizational climate and perceived wrongdoing associated with whistle-blowing decisions. *Personnel Psychology*, 38(3):525-544. <https://doi.org/10.1111/j.1744-6570.1985.tb00558.x>
 19. Rose J.M., Brink A. G., Norman C. S. (2016) The effects of compensation structures and monetary rewards on managers' decisions to blow the whistle. *Journal of Business Ethics*, 150(3):853-862. <https://doi.org/10.1007/s10551-016-3222-7>
 20. Stikeleather B.R. (2016) When do employers benefit from offering workers a financial reward for reporting internal misconduct? *Accounting, Organizations and Society*, 52:1-14. <https://doi.org/10.1016/j.aos.2016.06.001>
 21. Barrett K. L., Lynch M. J., Long M. A., Stretesky P. B. (2018) Monetary penalties and noncompliance with environmental laws: A mediation analysis. *American Journal of Criminal Justice*, 43(3):530-550. <https://doi.org/10.1007/s12103-017-9428-0>
 22. Gilligan G., Godwin A., Hedges J., Ramsay I. (2017) Penalties regimes to counter corporate and financial wrongdoing in australia-views of governance professionals. *Law and Financial Markets Review*, 11(1):4-12. <https://doi.org/10.1080/17521440.2017.1309162>
 23. Boo E., Ng T.B.P., Shankar P.G. (2016) Effects of incentive scheme and working relationship on whistle-blowing in an audit setting. *Auditing: A Journal of Practice & Theory*, 35(4):23-38. <https://doi.org/10.2308/ajpt-51485>
 24. Chen C.X., Nichol J.E., Zhou F.H. (2017) The effect of incentive framing and descriptive norms on internal whistleblowing. *Contemporary Accounting Research*, 34(4):1757-1778. <https://doi.org/10.1111/1911-3846.12325>
 25. Feldman Y., Lobel, O. (2010) The incentives matrix: The comparative effectiveness of rewards, liabilities, duties, and protections for reporting illegality. *Texas Law Review*, 88(6), 1151–1211. <https://doi.org/10.2139/ssrn.1415663>
 26. Nosenzo D. (2016) Employee incentives: Bonuses or penalties? *IZA World of Labor*, 234:1-10. <https://doi.org/10.15185/izawol.234>
 27. Piquero N.L., Exum M.L., Simpson S.S. (2005) Integrating the desire-for-control and rational choice in a corporate crime context. *Justice Quarterly*, 22(2):252-280. <https://doi.org/10.1080/07418820500089034>
 28. Tenbrunsel A.E., Messick D.M. (1999) Sanctioning systems, decision frames, and cooperation. *Administrative Science Quarterly*, 44(4):684-707. <https://doi.org/10.2307/2667052>
 29. Bjørkelo B., Einarsen S., Matthiesen S. B. (2010) Predicting proactive behaviour at work: Exploring the role of personality as an antecedent of whistleblowing behaviour. *Journal of Occupational and Organizational Psychology*, 83(2):371-394. <https://doi.org/10.1348/096317910X486385>
 30. Wu X. (2005) Corporate Governance and Corruption. *Governance: An International Journal of Policy, Administration and Institutions*, 18(2):151-170. <https://doi.org/10.1111/j.1468-0491.2005.00271.x>
 31. Joseph C., Gunawan J., Sawani Y., Rahmat M., Avelind Noyem J., Darus, F. (2016) A comparative study of anti-corruption practice disclosure among Malaysian and Indonesian Corporate Social Responsibility (CSR) best practice companies. *Journal of Cleaner Production*, 112:2896-2906. <https://doi.org/10.1016/j.jclepro.2015.10.091>
 32. Song C., Han S.H. (2017) Stock market reaction to corporate crime: Evidence from south Korea. *Journal of Business Ethics*,

- 143(2):323-351.
<https://doi.org/10.1007/s10551-015-2717-y>
33. Yeboah-Assiamah E., Alesu-Dordzi, S. (2016) The calculus of corruption: a paradox of 'strong' corruption amidst 'strong' systems and institutions in developing administrative systems. *Journal of Public Affairs*, 16(2):203-216. <https://doi.org/10.1002/pa.1576>
 34. Near J. P., Miceli M.P. (1985) Organizational dissidence: The case of whistle-blowing. *Journal of Business Ethics*, 4:1-16. https://doi.org/10.1007/978-94-007-4126-3_8
 35. Brennan N., Kelly J. (2007) A study of whistleblowing among trainee auditors. *British Accounting Review*, 39(1):61-87. <https://doi.org/10.1016/j.bar.2006.12.002>
 36. Rehg M.T., Miceli M.P., Near J.P., Van Scotter J.R. (2008) Antecedents and outcomes of retaliation against whistleblowers: Gender differences and power relationships. *Organization Science*, 19(2), 221–240. <https://doi.org/10.1287/orsc.1070.0310>
 37. Elliston F., Keenan J., Lockhart P., Van Schaick J. (1985) Whistleblowing Research: Methodological and Moral Issues. Praeger.
 38. Jubb P.B. (1999) Whistleblowing: A restrictive definition and interpretation. *Journal of Business Ethics*, 21(1):77-94. <https://doi.org/10.1023/A:1005922701763>
 39. Kumar M., Santoro D. (2017) A justification of whistleblowing. *Philosophy and Social Criticism*, 43(7):669-684. <https://doi.org/10.1177/0191453717708469>
 40. Antinyan A., Corazzini L., Pavesi F. (2020) Does trust in the government matter for whistleblowing on tax evaders? Survey and experimental evidence. *Journal of Economic Behavior and Organization*, 171:77-95. <https://doi.org/10.1016/j.jebo.2020.01.014>
 41. Parmerlee M.A., Near J.P., Jensen T. C., Administrative S., Quarterly S., Mar N., Parmerlee M.A., Near J.P., Jensen T.C. (1982) Correlates of Whistle-blowers' Perceptions of Organizational Retal-ation. *Administrative Science Quarterly*, 27(1):17-34.
 42. Miceli M.P., Near J. P. (1984) The relationships among beliefs, organizational position, and whistle-blowing status: A discriminant analysis. *Academy of Management Journal*, 27(4): 687-705. <https://doi.org/10.5465/255873>
 43. Jensen JV (1987) Ethical tension points in whistleblowing. *Journal of Business Ethics*, 6(4):321-328. <https://doi.org/10.1007/BF00382941>
 44. Soeken K.L., Soeken D.R. (1987) Soeken Whistleblowers.pdf. *Proceedings of the Hearing on HR*, 25(1):156-166.
 45. Miceli M.P.,Near J.P.(1988) Individual and Situational Correlates of Whistle-Blowing. *Personnel Psychology*, 41(2):267-281.<https://doi.org/10.1111/j.1744-6570.1988.tb02385.x>
 46. Fritzsche D. J. (1988) An Examination of Marketing Ethics: Role of the Decision Maker, Consequences of the Decision, Management Position, and Sex of the Respondent. *Journal of Macromarketing*, 8(2):29-39. <https://doi.org/10.1177/027614678800800205>
 47. Graham J.W. (1989) Whistleblowing as organizational citizenship behavior and/or civic duty. *The Annual Meeting of the American Society of Criminology*.
 48. Miceli M.P., Dozier, J.B., Near J. P. (1991) Blowing the Whistle on data fudging: A controlled field experiment. *Journal of Applied Social Psychology*, 21(4):271-295.
 49. Miceli M.P., Near J. P., Schwenk C.R. (1991) Who Blows the Whistle and Why? *Industrial and Labor Relations Review*, 45(1):113. <https://doi.org/10.2307/2524705>
 50. Brewer G.A., Seiden S.C. (1998) Whistle blowers in the federal civil service: New evidence of the public service ethic. *Journal of Public Administration Research and Theory*, 8(3):413-439. <https://doi.org/10.4324/9780429497957>
 51. Dworkin T. M., Baucus, M. S. (1998) Internal vs. external whistleblowers: A comparison of whistleblowing processes. *Journal of Business Ethics*, 17(12):1281-1298. <https://doi.org/10.1023/A:1005916210589>
 52. Cassematis P.G., Wortley R. (2013) Prediction of Whistleblowing or Non-reporting Observation: The Role of Personal and Situational Factors. *Journal of Business Ethics*, 117(3):615-634.

- <https://doi.org/10.1007/s10551-012-1548-3>
53. Dhamija S., Rai S. (2017) Role of retaliation and value orientation in whistleblowing intentions. *Asian Journal of Business Ethics*, 37-52. <https://doi.org/10.1007/s13520-017-0078-6>
 54. Rodrigues da Silva G., Souza R.G. (2017) The influence of the anonymous whistleblowing channel on accounting fraud detection in organizations. *Revista Contabilidade e Organizações*, 30:46-57.
 55. Lee H. (2020) The implications of organization structure, political control, and internal system responsiveness on whistleblowing behavior. *Review of Public Personnel Administration*, 40(1):155-177.
 56. Mesmer-Magnus, J. R., Viswesvaran C. (2005) Whistleblowing in organizations: An examination of correlates of whistleblowing intentions, actions, and retaliation. *Journal of Business Ethics*, 62(3):277-297. <https://doi.org/10.1007/s10551-005-0849-1>
 57. Culiberg B., Mihelič K. K. (2017) The evolution of whistleblowing studies: A critical review and research agenda. *Journal of Business Ethics*, 146(4):787-803. <https://doi.org/10.1007/s10551-016-3237-0>
 58. Nayir D.Z., Herzig C. (2012) Value orientations as determinants of preference for external and anonymous whistleblowing. *Journal of Business Ethics*, 107:197-213.
 59. Park H., Blenkinsopp J., Park M. (2014) The influence of an observer's value orientation and personality type on attitudes toward whistleblowing. *Journal of Business Ethics*, 120(1):121-129. <https://doi.org/10.1007/s10551-013-1908-7>
 60. Liu S., Liao J., Wei H. (2015) Authentic Leadership and Whistleblowing: Mediating Roles of Psychological Safety and Personal Identification. *Journal of Business Ethics*, 131: 107-119.
 61. Vasconcelos A.F. (2015) Influência do julgamento ético, locus de controle, clima ético organizacional e materialidade do delito sobre as intenções de Whistleblowing dos auditores internos no Brasil [Universidade Federal da Paraíba]. http://repositorio.unb.br/bitstream/10482/19371/1/2015_AdrianaFernandesVasconcelos.pdf
 62. Glazer M. (1983) Ten whistleblowers and how they fared. *The Hastings Center Report*, 13(6):33. <https://doi.org/10.2307/3560742>
 63. Heumann M., Friedes A., Cassak L., Wright W., Joshi E. (2013) The world of whistleblowing: from the altruist to the avenger. *Public Integrity*, 16(1):25-52. <https://doi.org/10.2753/PIN1099-9922160102>
 64. Zedeck S. (1977) An information processing model and approach to the study of motivation. *Organizational Behavior and Human Performance*, 18(1):47-77. [https://doi.org/10.1016/0030-5073\(77\)90018-6](https://doi.org/10.1016/0030-5073(77)90018-6).
 65. Jensen M. C., Meckling W.H. (1976) Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3:305-360.
 66. Lambert R.A. (2001) Contracting theory and accounting. *Journal of Accounting and Economics*, 32(1-3):3-87. [https://doi.org/10.1016/S0165-4101\(01\)00037-4](https://doi.org/10.1016/S0165-4101(01)00037-4)
 67. Dyck A., Morse A., Zingales L. (2010) Who blows the whistle on corporate fraud? *Journal of Finance*, 65(6):2213-2253. <https://doi.org/10.1111/j.1540-6261.2010.01614.x>
 68. Brink A.G., Lowe D.J., Victoravich L.M. (2013) The effect of evidence strength and internal rewards on intentions to report fraud in the dodd-frank regulatory environment. *Auditing: A Journal of Practice & Theory*, 32(3):87-104. <https://doi.org/10.2308/ajpt-50449>
 69. Latan H., Chiappetta Jabbour C.J., Lopes de Sousa Jabbour A.B. (2019) 'Whistleblowing triangle': Framework and empirical evidence. *Journal of Business Ethics*, 160(1):189-204. <https://doi.org/10.1007/s10551-018-3862-x>
 70. Mischkowski D., Glöckner A., Lewisch P. (2018) From spontaneous cooperation to spontaneous punishment-Distinguishing the underlying motives driving spontaneous behavior in first and second order public good games. *Organizational Behavior and Human Decision Processes*, 149:59-72. <https://doi.org/10.1016/j.obhdp.2018.07.001>

71. Kurz T., Thomas W.E., Fonseca M.A. (2014) A fine is a more effective financial deterrent when framed retributively and extracted publicly. *Journal of Experimental Social Psychology*, 54:170-177. <https://doi.org/10.1016/j.jesp.2014.04.015>
72. Pei H., Yan G., Wang H. (2020) Monetary punishment promotes cooperation in complex networks. 5th International Conference on Computer and Communication Systems, ICCCS, 552–556. <https://doi.org/10.1109/ICCCS49078.2020.9118505>
73. Shevchenko A. (2021) Do financial penalties for environmental violations facilitate improvements in corporate environmental performance? An empirical investigation. *Business Strategy and the Environment*, 30(4):1723-1734. <https://doi.org/10.1002/bse.2711>
74. Wang Y., Ashton J.K., Jaafar A. (2019) Money shouts! How effective are punishments for accounting fraud? *British Accounting Review*, 51(5):100824. <https://doi.org/10.1016/j.bar.2019.02.006>
75. Liyanarachchi G.A., Adler R. (2011) Accountants' Whistle-Blowing intentions: The impact of retaliation, age, and gender. *Australian Accounting Review*, 21(2):167-182. <https://doi.org/10.1111/j.1835-2561.2011.00134.x>
76. Nonato L. F. R., Leal B. A., Ricardo A., Rocha J. (2014) The influence of age and gender on entrepreneurial behaviour characteristics of students and professionals of Business Administration. *African Journal of Business Management*, 8(21):1019-1028. <https://doi.org/10.5897/AJBM2013.7320>
77. George B., Sims P., McLean A.N., Mayer D. (2007) Discovering your authentic leadership. *Harvard Business Review*, 85(2).
78. Brown M.E., Treviño L.K., Harrison D.A. (2005) Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97(2):117-134. <https://doi.org/10.1016/j.obhdp.2005.03.002>
79. Tourish D., Craig R. (2018) Research misconduct in business and management studies: causes, consequences, and possible remedies. *Journal of Management Inquiry*, 29(2):174-187. <https://doi.org/10.1177/1056492618792621>
80. Bearden W.O., Sharma S., Teel J.E. (1982) Sample Size Effects on Chi Square and Other Statistics Used in Evaluating Causal Models. *Journal of Marketing Research*, 19(4):425. <https://doi.org/10.2307/3151716>
81. Bollen K.A. (1990) Overall fit in covariance structure models: Two types of sample size effects. *Psychological Bulletin*, 107(2):256-259. <https://doi.org/10.1037//0033-2909.107.2.256>
82. Schein E.H. (1984) Coming to a new awareness of organizational Culture. *Sloan Management Review*, 25(2):3-16.
83. Lourenço S.M. (2019) Field experiments in managerial accounting research. *Foundations and Trends in Accounting*, 14(1):1-72. <https://doi.org/10.1561/14000000059>
84. Kaymak T., Bektas E. (2014) Corruption in Emerging Markets: A Multidimensional Study. *Social Indicators Research*, 124(3):785-805. <https://doi.org/10.1007/s11205-014-0814-4>
85. Olken B., Pande R. (2012) Corruption in Developing Countries. *Annual Review of Economics*, 4:479-509. <https://doi.org/10.1146/annurev-economics-080511-110917>
86. Aguinis H., Villamor I., Lazzarini S.G., Vassolo R.S., Amorós J.E., Allen D.G. (2020) Conducting management research in Latin America: Why and what's in it for you? *Journal of Management*, 46(5):615-636. <https://doi.org/10.1177/0149206320901581>
87. Gamidullaeva L.A., Vasin S.M., Wise N. (2020) Increasing small-and-medium-enterprise contribution to local and regional economic growth by assessing the institutional environment. *Journal of Small Business and Enterprise Development*, 27(2):259-280. Doi: 10.1108/JSBED-07-2019-0219
88. Gherghina S.C., Botezatu M.A., Hosszu A., Simionescu L.N. (2020) Small and medium-sized enterprises (SMEs): The engine of economic growth through investments and innovation. *Sustainability*, 12(1):347-369.

- <https://doi.org/10.3390/su12010347>.
89. Ullah B. (2020) Financial constraints, corruption, and SME growth in transition economies. *Quartely Review of Economics and Finance*, 75:120-132. [10.1016/j.qref.2019.05.009](https://doi.org/10.1016/j.qref.2019.05.009)
 90. Ivanovic-Djukic M., Lepojevic V., Stefanovic S., Stel A. van, Ateljevic J. (2019) Corruption as an obstacle for starting a new business in Serbia. *International Review of Entrepreneurship*, 17(1):37-58.
 91. Baethge C., Goldbeck-Wood S., Mertens S. (2019) SANRA -A scale for the quality assessment of narrative review articles. *Research Integrity and Peer Review*, 4(1):2-8. <https://doi.org/10.1186/s41073-019-0064-8>
 92. Hodgkinson G.P., Ford J.K. (2014) Narrative, meta-analytic, and systematic reviews: What are the differences and why do they matter? *Journal of Organizational Behavior*, 35(S1):S1-S5. <https://doi.org/10.1002/job.1918>
 93. Branco M.C. (2010) Informação sobre combate à corrupção nos relatórios de sustentabilidade das empresas portuguesas. *Estudos Do ISCA*, 4(2):1-16.
 94. Brown J.O., Hays J., Stuebs M.T. (2016) Modeling accountant whistleblowing intentions: Applying the theory of planned behavior and the fraud triangle. *Accounting and the Public Interest*, 16(1):28-56. <https://doi.org/10.2308/apin-51675>
 95. Ethics & Compliance Initiative. (2020). The state of ethics & compliance in the workplace: A Look at Global Trends. In *Ethics & Compliance Initiative*. https://www.ethics.org/wp-content/uploads/2019/01/Global_Business_Ethics_Survey_2018_Q4_Final.pdf
 96. Liu J., Hu M., Zhang H., Carrick J. (2019) Corruption and Entrepreneurship in Emerging Markets. *Emerging Markets Finance and Trade*, 55(5):1051-1068. <https://doi.org/10.1080/1540496X.2018.1531242>
 97. Miceli M.P., Dozier, J.B., Near J. P. (1991) Blowing the Whistle on data fudging: A controlled field experiment. *Journal of Applied Social Psychology*, 21(4):271-295.
 98. Miceli M.P., Near J. P., Schwenk C.R. (1991) Who Blows the Whistle and Why? *Industrial and Labor Relations Review*, 45(1):113. <https://doi.org/10.2307/2524705>
 99. Transparency International (2021) Corruption Perception Index 2021. In *Transparency International*. https://images.transparencycdn.org/images/CPI2021_Map_EN.pdf.