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# The roles of whistleblowing system and fraud awareness as financial statement fraud deterrent

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## Abstract

**Purpose** – This paper aims to provide new theoretical discussion about the role of whistleblowing system and fraud awareness as an effective deterrent for financial statement fraud.

**Design/methodology/approach** – The authors conducted surveys to 13 reputable public accounting firms in East Java, Indonesia.

**Findings** – It is well acknowledged, as fraud attacks grow more sophisticated, whistleblowing system and fraud awareness can be possible deterrents. By increasing employees' fraud awareness, they do not only recognise fraud symptoms and typologies but also support to raise concerns in good faith and on reasonable grounds. This study also suggests the role of fraud awareness as a human capital investment that increase sensitivity on identifying fraud symptoms and discouraging participation in crimes.

**Originality/value** – This study produces new theoretical discussion about fraud prevention. Then this study also offers several aspects that can help organisation to establish effective whistleblowing systems and reporting mechanisms. Those aspects identified can encourage an individual to report malpractice or wrongdoing. This study also offers how fraud awareness can support the implementation of whistleblowing system in preventing fraudulent financial statements and other irregularities.

**Keywords** Fraud awareness, Financial statement fraud, Whistleblowing system, Deterrent

**Paper type** Research paper

## Introduction

Fraud is a global scourge that harms corporate reputations. It can come from multiple angles – customers, suppliers, employees and many more (PwC, 2018; Akkeren and Buckby, 2017). Yet the bad news is that many anti-fraud controls (such as internal audit and antifraud processes) are not strong enough to face fraud (KPMG, 2016). This situation is similar with the study completed by Power (2013) stating that many organisations find difficulties in creating a collaborative and cross-departmental fraud prevention. It is presumably because fraud perpetrators are not only capable of committing fraud but also hiding it (Davis and Pesch, 2013). Conversely, a certain type of fraud continues to go unmitigated (Power, 2013).

Surprisingly enough, according to a study carried out by Holtfreter *et al.* (2008), there is a wrong perception about the consequences of financial crimes. Holtfreter *et al.* give us



an illustration of how the US Department of Justice views white-collar crimes. The study provides a comparison between two types of crimes, such as internal fraud as white-collar crimes and violent crimes including terrorist attacks. The result shows the lack of priority given to the fraud detection and prevention. The federal budget allocation is much more focused on creating protocols to prevent terrorism attacks rather than fraud or white-collar crime. A similar fraud problem is also found at Free and Murphy's (2011) study. The study mentions due to wrong perception of the frequency of fraud occurrence, it imposes a renewed challenge on managers and audit internal to sharpen their fraud risk diagnostic tools. As consequence, they must have a superior level of knowledge to successfully accomplish their role.

While many theoretical studies increasingly explore the causes of fraudulent conducts, Akkeren and Buckby (2017) mention current published works have a little interest in providing a theoretical approach concerning how to deal with deceptive financial statements. Primarily, the need for preventing fraudulent financial statement has been highlighted by the Association of Certified Fraud Examiners (ACFE). ACFE is the world's largest anti-fraud organisation providing anti-fraud training and education within its regular fraud studies, ACFE consistently breaks down fraud cases into three broad categories, such as corruption, asset misappropriation and financial statement fraud. From those three categories, ACFE (2018) reports financial statement fraud is the most serious problem for all types of organisation. Through this finding, ACFE sends an alert that organisations should give a high priority in the advancement of financial statement fraud prevention. But it has a little attention from prior studies (Akkeren and Buckby, 2017).

Concerning fraud prevention, some scholars propose a whistleblowing system (Rachagan and Kuppusamy, 2013; Johansson and Carey, 2016; Near and Miceli, 1995). In general, those people show the positive consequences of implementing a whistleblowing system. They believe that a whistleblowing system is a service that enables employees and third-party suppliers to report malpractice or unethical behaviour within the workplace.

However, from an ethical perspective a whistleblowing system is problematised. Some people (Vinten, 1994; Larmer, 1992), argue there is apparent erosion both of employee loyalty to employers and employer loyalty to employees. Specifically, "making a disclosure" or "blowing the whistle" is regarded as the act of disloyalty (Vinten, 1994), and/or the act of betrayal (Larmer, 1992). On a practical level, those people mention that most employers have a reasonable expectation that their employees will behave loyally. The concept of loyalty is also found at a study completed by Uys (2008), stating that loyalty is being one of important factors that can help to explain whistleblowing decisions. Uys (2008) investigates the cognitive processes underlying people's decision to blow the whistle or not. The study suggests, loyalty gives a moral dilemma for employees when they are confronted with what is perceived to be organisational wrongdoings. Such a dilemma arises because organisation believes that whistleblowing is a deviant act, which threatens the profitability of the organisation and tarnishes its reputation (Uys, 2008).

Then another concern related to the implementation of a whistleblowing system is the misuse of management power. Burkin and Kleiner (1998) finds an employee is terminated after raising concerns. Burkin and Kleiner (1998) also suggest personal threats (e.g. the risks of physical harm) cannot be separated from whistle-blowers' actions. Burkin and Kleiner argue, whistle-blowers are quite often to face reprisal, sometimes at the hands of the organisation or group they have accused, sometimes from related organisations, and sometimes under law. Although the potential whistle-blower has an opportunity to clear his/her name, he/she still faces such serious concerns (Burkin and Kleiner, 1998). So, it is important to understand the psychological factors that might influence the behaviour of whistle-blowers.

The above discussion shows that the notion of whistleblowing is under ongoing ethical debate. We see the situational and psychological factors affecting an individual's intention to report misconducts (Near and Miceli, 1986) seem to be unclear. In addition, it is well acknowledged, there is limited evidence on the role of psychological characteristics as the predictors of individual intention to report a fraudulent financial statement. As we see in the literature of accounting, auditing and business ethics, prior studies exclusively investigate the importance of whistleblowing system in the general context. They tend to generalise the usage of whistleblowing system for corporate wrongdoings or frauds. To our knowledge, it looks better to assess the role of whistle-blowers in a specific fraud scheme – fraudulent financial statement. This is because whistle-blowers must understand the early warning signs of fraud in organisations, and know where, how and when to report them (Uys, 2008). If whistle-blowers meet such criteria, they may report fraud in good faith and on reasonable grounds.

Besides the above research ideas, this study also examines the importance of fraud awareness as counter-fraud best practice (ACFE, 2018, PwC, 2018). Based on the Uys' s (2008) study, the reluctance of whistle-blowers to report a concern about wrongdoing is largely due to the lack of awareness of fraud signs. To support the interdisciplinary field of fraud prevention, deterrence and detection, this study seriously examines the importance of whistleblowing system and fraud awareness from the behavioural sciences – psychology and sociology. Perhaps more importantly, by focusing on those initiatives, it allows to broaden and deepen the John Rawls' a theory of justice to the context of fraud prevention. This study introduces new discourse in terms of optimising cognitive reasoning as a practical contribution to whistle-blowers' actions.

### Theory and related studies

#### *The ethical dilemma*

Boot (2019) considers the main ethical dilemma of whistleblowing to be the clash of values, for example, loyalty to clients or to one's own integrity versus loyalty to the organisation, the general public, professional standards, family and friends. It is argued, it is a tricky matter from personal view point that might degrade his/her sense of responsibility and motivation to report. Boot (2019) emphasises whistleblowing brings two moral values, fairness and loyalty, into conflict; meaning that the employee is required to ignore or overlook actual or potential wrongdoing committed by the organisation. Similarly, Andrade (2015) notes that central to this dilemma is the internal/external disclosure dichotomy; disclosure of organisational wrongdoing to an external recipient is seen as disloyal, while disclosure to an internal recipient is seen as loyal.

Traditionally the whistle-blower is not that person who stands in opposition to the organisation but is someone sharing knowledge of misconduct for the benefit of others or someone who is acting "disloyal" to their organisation. Duska (2007) mention in his book, "Contemporary Reflections on Business Ethics", people who are labelled as 'disloyal' within public perception of ethics and whistleblowing should be addressed to people who commit wrongdoing or illegal acts not the whistle-blower who promote good corporate governance. The thing that should be understood here is that even though an individual has the authority to act, he/she must complies with organisation's norms – whether contractual, reciprocal moral – that the individual cannot act as their own authority (Bellaby, 2018). However, there is no obedience owed to peers and superiors, nor any necessity for confidentiality inherent in the relationships between colleagues, other than that which stems directly from duties owed to the organisation itself. Collegiate loyalty is real and may be



keenly felt but its content differs, being similar to the loyalty owed to family, friends and other social groups (Jubb, 1999).

#### *Inherent problems in whistleblowing system*

Domfeh and Bawole (2011) report that “blowing the whistle could result in potential and actual risks and hazards, especially when regulatory and enforcement agencies are yet to discard patrimonial tendencies and institutional apathy.” In line with that, some people mention the importance of the psychological factors of whistle-blowers (Park *et al.*, 2005; Chiu, 2003). In general, the study suggests that a variety of personal characteristics and the influence of contextual factors (e.g. fear of retaliation) is likely to be a fundamental assumption influencing people reasoning to report wrongdoing. Such kinds of factors promote the imperative of systematic controls to ethical decision making behaviour. One may be inclined to describe whistleblowing conduct as foolhardy, stupid or non-rational (Kaptein, 2011; Teo and Caspersz, 2011). These studies have repeatedly documented bitter experiences of past whistle-blowers; but this is not to deny that the conduct is, or can be, also courageous.

Whistleblowing is not merely informing. It needs to be differentiated from informing in general. Indeed, organisation needs to develop a more open and supportive culture that encourages staff to speak up about any issues of incorrect activities within the organisation (Near and Miceli, 2016). Within this position, individuals must be free and not under pressure from a diversity of beliefs in the organisation. As suggested in above discussion, many current normative beliefs see acts to report employee misconduct, fraudulent statements, assets misappropriation or criminal offense assumed as controversial or disloyal manners to high authority or organisation. So, by having clear policies and procedures for dealing with whistleblowing, it is not far-fetched to believe reports from potential whistle-blowers as the basis for evaluating organisational activities (Taylor and Curtis, 2010; Vandekerckhove, 2018).

One specific example has been examined by Kish-Gephart *et al.* (2009). Kish-Gephart *et al.* examine the importance of emotional control or a personal sense of control on individual intention to report fraud. They argue that the contingency of social circumstances influences personal factors. For example, fear of reprisal as a result of making a disclosure, in the study of ethics on whistle-blower’s behaviour, gives a considerable pressure on individual to keep silent (Kish-Gephart *et al.*, 2009). This result is also consistent with a study conducted by Cassematis and Wortley (2013), examining personal and situational factors affecting individual initiative to report wrongdoing. Their results show fear of reprisals has been accepted as part of the cost-benefits consideration (p. 628). They identify the decision to be a whistle-blower is not easy. Mental trauma, the fear of retaliation, the potential loss of employment by work colleagues weigh heavily on the individual who decides to speak out for the common good. As such, upon identifying wrongdoing, employees in the public or private sector may be uncertain of what to do with the information, where or to whom to turn, or whether they are protected by whistle-blower protection mechanisms.

These findings might challenge the principles of the theory of justice, suggesting the distribution of rights and liberties (Rawls, 1971). The theory highlights that each person is to have an equal right to obtain a fair equality of opportunity and is not threatened for accessing his/her right. Even though this theory is focused on “fairness, objectivity, equality of opportunity, removal of poverty, and freedom” (Rawls, 1971), its paradigm is useful for current study, for example how the interpretation of justice as freedom is linked with individual’s reasoning and decision in making a disclosure or blowing the whistle.

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The idea of justice occupies centre stage both in ethics, and in legal and political philosophy. We apply it to individual actions, to laws and to organisational policies, and we think each point is likely or unlikely to influence people to act. Rawls (1999) views justice as the interplay of virtue of social institutions and systems of thought. Rawls further claims that, the principles of justice are chosen behind a veil of ignorance. This ensures that no one is advantaged or disadvantaged in the choice of principles by the outcome of natural chance or the contingency of social circumstances. Since all are similarly situated and no one is able to design principles to favour his particular condition, the principles of justice are the result of a fair agreement or bargain. For 9) en the circumstances, we think people who raise a genuine concern under good faith, should not be at risk of losing your job or suffering any form of reprisal as a result. And organisation s 9) uld not tolerate the harassment or victimisation of anyone raising a concern.

Of course, speaking up about any concern at work is really important. However, it can be fostered when fairness in treatment of individuals are perceived to be equally applied. Rawls (1999) asserts that, once a management ethical decision is made, it positively leads 1) to good outcomes for organisation. An employee to behave as intended, it is influenced by a function of the degree to which an employee b 1) eves that whether he or she has been treated fairly by the organisation. When individuals perceive that actions and practices in the organisation are fair and honest, they will show more extra-role behaviour, which is beneficial to the development of organisations. What is more interesting is that fairness in treatment of individuals (just 44) affects what workers believe about the organisation as a whole (Rawls, 1999). We think, the theory of justice has the potential to contribute to the implementation of 35) ctive whistleblowing mechanisms because the perspectives proposed by Rawls (1999) has indica 58) a positive relationship between justice dimensions and pro-social behaviour. This also allows us to study the varied commitments that influence individuals' ethical judgments.

In addition, Duska (2007) claims the existence of a hotline gives employees to f 1) empowered and secure in elevating suspected internal concerns and the report should be morally right on the basis of ethics, fairness or law. It is a 1) found that people are willing to raise a concern about risk, malpractice or wrongdoing, do more work and exhibit higher levels of performance when they believe they are treated fairly. What Rawls (1999) said, such causal effects are heavily reflecting feelings of fairness surrounding the allocation of organisational resources. So, when organisation treats its employees fairly, gestures of goodwill will be highly reciprocated in the future.

We think it may be an answe 71) or fraud studies suggesting that within corrupt organisations, many employees are faced with the dilemma of whether to blow the whistle. Even though their intentions are concerned with po 13) al (negative) consequences (e.g. retaliation), the only thing that still permits them to report fraud is the existence of harmonized protection of whistle-blowers Wortley (2015). For such given circumstances, it may seem reasonable and fair to mention that individuals naturally can be claimed as moral persons in terms of addressing what something is intended to accomplish. This result supports a study carried out by Bandura (1991), suggesting that people often reason correctly about what ought to be done in a specific situation. This reasoning process occurs in a logical system of moral beliefs. For this reason, we believe psychological internal dialogue processes can provide an ethical consideration, or even to govern a moral dilemma.

Furthermore, our study proposes unaware of the real vulnerabilities that lie in the organisational systems can result in catastro 91) c effects. Here, the lack of employee awareness as the most important area of the threat to internal controls put in place. The focus on fraud awareness to be a mechanism to 52) ent fraudulent behaviour is suggested by Button and Brooks's (2009) study. He assesses the extent and quality of anti-fraud culture strategies in the



UK central government. The research shows staff awareness training and screening viewed as best practice in the limited anti-fraud culture strategies. As an integral part of the anti-fraud culture, such a precaution can represent a somewhat valuable view of the information of alleged wrongdoing. This is also possible the participation in a robust anti-fraud training program can be attained within tightly bonded groups during daily organisational activities. This study sees a robust anti-fraud training program has substantial role in the fight against fraud and enriches our understanding of fraud mitigation in the scene of anti-fraud culture strategies.

If referring to the principle of theory of justice it seems organisations operating in a reciprocal basis. This viewpoint signifies that the distributions of benefits and work burdens fundamentally affect employees' performance. The principle says that every person should have the same level of material goods (including burdens) and services. The principle is most commonly justified on the grounds that people are morally equal and that equality in material goods and services is the best way to give effect to this moral ideal. For the context of current study, employees play a vital role to preventing, detecting and protecting against fraud, when they have equal fraud education that could enhance their sensitivity on fraud symptoms. We argue that even if an individual behaves ethically, he/she should know how to behave when faced with fraud in the business environment. To do so, he/she needs knowledge about fraud detection, fraud prevention, fraud investigation and fraud reporting. In effect, employees tend to be more likely to blow the whistle.

## Research design

### Research context

The objective of this study is to enhance our understanding of whistle-blowers' reasoning when their status is at stake. As previously mentioned, serious concerns attributed to the efficacy of whistleblowing system and the role of fraud awareness has received considerable attention from prior studies. Despite the benefits of the whistle-blowing system, the act of exposing wrongdoing is no easy task (Burkin and Kleiner, 1998), and many whistle-blowers faced negative consequences (Near and Miceli, 1986). In these situations, many scholars examine and analyse the consequences of blowing the whistle and a range of situational factors influencing an individual's intention, rather the role of moral intuitions triggered by a moral judgment on the individuals plan to raise a concern. For example, prior studies (Rachagan and Kuppasamy, 2013; Johansson and Carey, 2016) have neglected the integration of emotional and cognitive processes towards individual intentions to report fraud. So, it is important to explore the degree to which employees have a favourable or unfavourable evaluation in reporting fraud.

Then, it is quite often we see that reports or information made by whistle-blowers are not always based on benevolent interests. The reports or information provided could intentionally contain malicious interests hurting an individual's reputation. Or it could happen by mistake. PwC (2018) reports that potential whistle-blowers in the increasing complexity of fraud schemes must have appropriate skills to identify the signs of fraud and receive fraud awareness training. If an employee raises a genuine concern with adequate knowledge about fraud, he/she will act in good faith and in accordance with the policy (CIMA, 2008). CIMA's (2008) report states, fraud awareness is an understanding of steps to deter the occurrence of fraud and mitigate loss in the early stages. A result, the employees can benefit organisation to prevent the commission of any fraudulent activity. Importantly, fraud awareness helps employees to know what they should do if they acknowledge suspicious acts. CIMA (2008) notes fraud risk training and awareness should go within an organisation beyond the audit group (CIMA, 2008). However, in the fraud and auditing

literature, it has a little attention. The current study, therefore, can be the first study that fills the <sup>70</sup>d.

Based on the above explanation, the research question for this current study is: To what extent would the whistleblowing system and fraud awareness help organisations to prevent financial statement fraud? And how to make them operate effectively?

#### *Participant*

Data were gathered by a survey to the professional staff from 13 public accounting firms in East Java, Indonesia. Three of the firms are considered small public accounting firms.

#### *Procedure*

We used a series of questions with a five-point <sup>79</sup>Likert scale and open-ended questions. In response to the desirability bias, we described the purpose of the project that it is only to address something misconceived in prior studies. And we explained every construct that wants to be addressed which is intended to enlighten the participants. Then we also mentioned on the first page of the questionnaire that a <sup>82</sup>sponses are treated as anonymity and confidentiality. More importantly, we informed that participation in this research is voluntary, and the findings from this study are only to address the lack of a cumulative theoretical framework on the usage of whistleblowing system and fraud awareness as fraud deterrence. This was also reemphasised by stating that the participants were free to discontinue participation at any time without any penalties.

#### *Measurement*

We used the multiple-item scales. The participants <sup>37</sup>were asked to rate each item using a five-point Likert scale; where 1 = strongly disagree, and 5 = strongly agree.

The construct of whistleblowing system was measured by six items. Example items are "making a disclosure is expected as rights of free speech"; "a good system can be achieved by providing serious whistle-blowers protection".

Concerning fraud awareness, it is to accentuate an opportunity to raise employees' awareness about fraud in the organisation. Under the principles of the liberal conception of justice, each person must have an equal right to raise the awareness of fraud. Proper education for employees about suspicion of fraud might incentivise them to work harder in reducing and mitigating fraud risk. So, fair equality on fraud education can serve as a strong power to keep the workplace better protected (CIMA, 2008).

The construct of fraud awareness in this study was measured by six items. Example items are "if my organisation do proper staff rotation, it can help me to learn new *modus operandi*"; "Formal and informal fraud training is the right of each person to have the most extensive basic need as an employee"; "Hosting fraud knowledge contest serves as an important support tool to make an employee familiar to infamous fraud cases".

Then, the construct of the fraudulent financial statement was measured by Peterson's (2002) items with some modifications to fit the research context. Peterson explores the relationship between unethical employee behaviours and the dimensions of the ethical climate. Although his study does not directly examine fraudulent financial statements, it gives us instructions on how to measure unethical behaviours. Example items used to measure the <sup>40</sup>construct of the fraudulent financial statement are "Intentional false information"; <sup>49</sup>"Exaggerate the benefits of a product or service"; <sup>49</sup>"Adding an expense account by up to 10%".



**Research results and analysis**

*Demographic respondents*

The demographic characteristics of our respondents are presented in Table 1. It displays the educational level, professional certificate, experienced fraud and work experience. We see, the average respondents for our study are senior auditors and managers, with the working experience between 2 until 10 years. All respondents had either graduated from undergraduate or graduate programs, and most of them have a professional accounting and management certifications. We assume our respondents, on average, have enough experience and enough competence in their field.

*Result of validity and reliability tests*

The result of the validity test, as shown in Table 2, suggests good results for each item. It shows the values of loading factors more than 0.8. It means that all the data used have met the requirement for validity, see Hair et al. (2010). Then, the reliability tests also show positive results. The items used to measure all constructs have met the requirement for statistical reliability in the form of Cronbach alpha – (Whistleblowing system, 0.988; Fraud Awareness, 0.983; Fraudulent financial statement, 0.978). Those figures are excellent reliability, according to Hair et al.'s (2010) criteria. Based these tests, therefore, this study does not have any issue with validity and reliability.

	Responses rate (N= 158)
<i>Gender</i>	
Male	96 (60.76%)
Female	62 (39.24%)
<i>Educational level</i>	
Undergraduate	86 (54.43%)
Postgraduate	72 (45.57%)
<i>Experienced fraud</i>	
Yes	97 (61.39%)
No	61 (38.61%)
<i>Qualification</i>	
CPA	44 (27.85%)
CFE	13 (8.23%)
CA	67 (42.41%)
CMA	14 (8.86%)
No qualification	20 (12.66%)
<i>Experience</i>	
Less than 2 years	19 (12.03%)
2–5 years	48 (30.38%)
5–10 years	42 (26.59%)
Up to 10 years	49 (31.01%)
<i>Current position in Public Accountant firm</i>	
Junior auditor	19 (12.03%)
Senior auditor	57 (36.08%)
Manager	54 (34.18%)
N/A	28 (17.72%)

Source: Authors' own research

**Table 1.**  
Demographic  
respondents

Variable	Items	Loading	Cronbach's alpha	Mean	SD
Whistleblowing System	Free speech	0.860	0.988	4.372	0.561
	Whistleblowers protection	0.874		4.135	0.632
	Report in good faith	0.866		4.524	1.532
	The leaking of information	0.954		4.271	0.650
	Reporting mechanisms	0.863		4.135	2.023
Fraud awareness	Removal of work termination	0.790	0.983	4.315	1.325
	Proper staff rotation	0.882		4.521	0.582
	Formal and informal fraud training	0.895		4.536	1.635
	Hosting fraud knowledge contest	0.882		4.362	0.564
	Clear guidelines raising awareness	0.856		4.536	1.534
	Be proactive	0.759		4.606	1.672
	Increase perception of detection	0.813		4.574	0.435
Fraudulent Financial Statement	Intentional false information	0.983	0.978	4.520	1.213
	Exaggerate benefits of a product	0.884		4.542	0.659
	Padding an expense by up to 10%	0.976		4.624	0.653
	Lying to conceal errors	0.910		4.520	1.204
Falsifying quality/quantity reports	0.910		4.546	0.573	

**Table 2.**  
Reliability and  
validity analysis

Source: Authors' own research

*Result of normality test and Pearson correlation coefficient*

Whether the data are a normally distributed population, we tested the data by using the Kolmogorov–Smirnov test. It is because some people argue that it is one of the most popular statistical analyses for the data distribution (normality) (Cohen and Cohen, 1983), and it is also considered as an exact test for probability distributions (Pallant, 2013).

The result of Kolmogorov–Smirnov test is reported in Table 3. The value of Asymp. Sig. is 0.637. It is higher than the alpha ( $\alpha = 0.05$ ). It means the sample normally distributed. We refer to a consideration cited by Johnson and Wichern (2007) that in a normal distribution, the significant value must be higher than 0.05 (Sig.>0.05). Table 3 also presents the correlation analysis between all variables used in the study. It shows positive and significant relationships between whistleblowing system, and fraud awareness as a possible solution to prevent fraudulent financial statements. Additionally, as can be seen in Table 3, multicollinearity does not appear to be an issue in this data.

*Result of the test for the coefficient of determination*

Table 4 demonstrates the proportion of observed outcomes replicated by the model. It is to give some information about a statistical measure of the regression predictions. In Table 4,

No.	Variable	1	2	3
1	Fraudulent financial statement	1.00		
2	Whistleblowing system	1.05**	1.00	
3	Fraud awareness	1.10**	1.07*	1.00
	Kolmogorof–Smirnov Z	0.994		
	Asymp.Sig. (2-tailed)	0.637		

**Table 3.**  
Results of Pearson  
correlation coefficient  
and normality test

Source: Authors' own research

the result shows, the value of adjusted *R* square is 0.828 or 82.8% with Std. Error of the Estimate 1.763. This result is expected to give the best estimate of the degree of relationship in the underlying population of this study.

*Results of hypotheses test*

Based on Table 5, it shows that the value of *t* statistic for the variable of an effective whistleblowing system is 4,535 in which it is higher than the critical value (1.72), and its *p*-value (0.005) is smaller than alpha (0.05). These statistics indicate *H1* is supported – the whistleblowing system has a positive impact on preventing fraudulent financial statement.

From our analysis, it is argued that intrinsic individual motives, together with organisational culture and leadership, should be considered when developing whistleblowing policies. It is because employees have different perceptions in relation to the act of reporting fraud. For some individuals, the act of blowing the whistle poses an ethical dilemma, and it requires careful moral justification and moral judgments. They make the decision by reasoning the morality of their potential actions. In this position, whether a worker will decide to blow the whistle are determined by the beliefs underlying the moral evaluations. By having clear policies and procedures for dealing with whistleblowing, workers feel able to speak up. This means an organisation does not create an open, transparent and safe working environment, the worker may not feel comfortable making a disclosure. This is why the existence of a whistleblowing policy plays important role to push employees to act not only in the interest of their company, but also in the interest of society.

Conceptual models of whistleblowing in this study have identified the key factor involved in the decision to report wrongdoing. Given our focus on moral judgment and choice, the legal protection for “freedom of thought” and “liberty of speech” is identified as the most powerful factor affecting individuals’ desire to achieve logical consistency when reporting abuse that has been witnessed or suspected. This view, the potential whistleblowers try to take account of available information, probabilities of events and potential costs and benefits to act consistently based on the self-determined best choice of action. The process of rational decision made by employees is primarily determined by the existence of laws and regulations guaranteeing freedom of speech for employees. This is because many people who choose to act as whistle-blowers are a fear of reprisal. Ideally, they must be protected from retaliation for disclosure of a violation of any law, rule or regulation.

Model	<i>R</i>	<i>R</i> square	Adjusted <i>R</i> square	Std. error of the estimate
1	0.913 <sup>a</sup>	0.833	0.828	1.763

Notes: a. Predictors: (Constant), Whistleblowing system; Fraud awareness; b. Dependent variable: fraudulent financial statement

**Table 4.**  
Result of test for coefficient of determination model summary

Variables	Coefficient	<i>t</i> <sub>Statistic</sub>	Critical value	<i>p</i> -value
Constant	0.921	3.212	1.72	0.009
Whistleblowing system	0.827	4.535	1.72	0.005
Fraud awareness	0.671	2.867	1.72	0.023

Source: Authors’ own research

**Table 5.**  
Summary of hypotheses test



This result is consistent with a study produced by Lewis and Trygstad (2009). As explained by Lewis and Trygstad (2009), rational decisions for reporting misconduct on a fellow employee superior are typically supported by moral feelings. The principle of moral feeling is understood as the capacity to think critically about social values and direct actions in terms of such values. Lewis and Trygstad (2009) also argue people who witness fraud often struggle to determine what is good for themselves and the company. As such, at some point, their decisions generate cognitive conflict or dilemma, which in turn exerts a negative effect on the intention to blow the whistle (Lewis and Trygstad, 2009).

Furthermore, Table 5 also shows the analysis of the role of fraud awareness as a reasonable program for preventing fraudulent financial statements. The analysis suggests that the value of *t* statistic for the variable of fraud awareness is 2,867 in which it is higher than the critical value (1.72), and its *p*-value (0.023) is smaller than alpha (0.05). This finding supports *H2*. It means that fraud awareness can prevent fraudulent financial statements and contributes to the rising levels of fraud reported. So, it is argued, employees must be aware of what constitutes fraud and be able to identify risk factors or conditions associated with it. Properly educating employees on fraud symptoms will go far in preventing fraud. It also encourages employees to adopt appropriate behaviours and attitudes and might support improved ethical work climate. In this case, it is necessary to possess rules allowing groups of people to be able to educate themselves without being impeded by the malevolent interests from the top. This approach is considered to be one of the most successful, efficient and effective methods to prevent, identify, deter and resolve fraud cases more quickly.

#### *How to make whistleblowing system effective*

This section discusses how to create an effective whistleblowing system. It is important to understand that providing individuals with a means to report suspicious activity is a critical part of an anti-fraud program. But many organisations face difficulties on how to make whistleblowing effective in encouraging people to raise concern (Deloitte, 2014).

According to OECD (2009), how an organisation deals with whistleblowing is a barometer of its ethical culture and values. It is because, as OECD (2009) explained, whistleblowing system is an integral part of organisation transparency. At work, however, the act of blowing the whistle on misconduct is seen as an ethical dilemma for individuals, society, as well as organisations. Deloitte's (2014) study mentions it is still problematic: there is a gap between the promotion of whistleblowing and the protection of whistle-blowers. In other words, reporting concerns about accounting or audit irregularities does not always obtain positive responses from fellow workers, managers, or even supervisors (Rachagan and Kuppusamy, 2013). To address such crucial concerns, this paper thus offers some aspects that can enhance the effectiveness of the whistleblowing system. Those aspects are depicted in Table 6.

According to Table 6, the average of respondents believed that a proactive protection to whistle-blowers is the most useful aspect that makes the whistleblowing system working effectively. This study supports prior research carried out by Lewis and Trygstad (2009). They argue the availability of protection has a positive effect that could make whistle-blowers feeling comfortable. It is not only helpful in persuading employees to rectify wrongdoing, but also encouraging the disclosure of misconduct. Following Rachagan and Kuppusamy (2013), employees must be aware of the available protection for whistle-blowers. Their intentions to blow the whistle are shaped by and seek to form, the environments in which they exist, to correct and curb illegal practices. People acting as whistle-blowers tend to consider the availability of protection if they want to report

A firm to establish whistleblowing system should	Effectiveness (Rank)	SD	$\alpha$	Sig	Financial statement fraud deterrent
Provide proactive safety/protection program	4.284 (1)	1.317	0.901	0.004**	<b>381</b>
Provide easy accessibility of exposure for employees	4.194 (2)	1.021	0.921	0.000**	
Follow-up whistleblower's reports or complaints	4.179 (3)	1.110	0.884	0.010**	
Use financial incentives (reward) to encourage reporting	4.164 (4)	1.394	0.910	0.014**	
Create a mechanism that whistleblowing system is managed by third-party provider	3.985 (5)	1.712	0.900	0.242	
Allow multiple mechanisms for rising concern	3.791 (6)	1.160	0.877	0.021**	
Make an integral part of a firm's corporate compliance and Ethical program and whistleblowing system	3.716 (7)	1.103	0.792	0.000**	
Define sanctions for retaliation or harassments	3.597 (8)	1.613	0.986	0.431	
Undertake effective awareness-rising programs	2.866 (9)	1.131	0.910	0.000**	

**Table 6.** Average responses to aspects affecting an effective whistleblowing system

**Notes:** 1 – not effective; 5 – very effective. This item has been reversed. All questions in this table were scaled positively. \* Significant at the 10% level. \*\* Significant at the 5% level. SD = Standard Deviation,  $\alpha$  = Cronbach's alpha

**Source:** Authors' own research

wrongdoings. <sup>5</sup> Under these circumstances, the extent to which a whistle-blower can rely on the company to protect him depends on the "tone at the top".

This result is also similar to an empirical study completed by Yeoh (2014), suggesting that individuals could have a high level of dangerous risks if the whistleblowing system were provided without clear protection policies. As one of the concrete commitments from an organisation to protect whistle-blower, organisational management should have a policy clearly stating "zero tolerance" for reprisal or harassment to the whistle-blowers. If there is a case about retaliation against good-faith whistle-blowers, the organisation must quickly crash down and thoroughly investigate it. This action may include providing clear procedures, emphasising that the victimisation (actual or threatened reprisals) is considered as serious misconduct.

Then, Table 6 also suggests that ease and difficulty in raising concerns are believed to be one of the considerable elements to increase the stability of corporate transparency in the work environment between employees. Many individuals may choose to keep silent towards malpractice or fraud because the suspected fraudster is often someone sitting in the top line management. Our study is similar to Lewis and Uys (2007), studying a comparison of the impact of whistleblowing system protection in British and South African. The study finds that besides the needs for whistle-blower protection, the easy and difficulty of raising concerns are also critical features that should be fully considered by the organisation. As such adequate internal reporting systems must be compatible with employees' contractual obligations and guide who should be approached if an individual continues to have concerns and when and how the whistleblowing procedure should be invoked (Lewis and Uys, 2007).

Furthermore, another aspect that attracts our attention, in Table 6, is about following up whistle-blower's reports or complaints. Our respondents claimed that following up on deviations are important for making it trustworthy. A person in authority should not agree to stay silent. In this context, a person in authority must listen and act when concerns are raised. When it comes to processes for follow-up on reports, the organisation or people in authority stipulates the requirements on confidentiality, response times, competence of persons receiving the reports, communication with the whistle-blower and feedback on how

the case <sup>34</sup> being processed. This study has similar findings to previous research, for example, conducted by Lewis and Uys (2007). They document that the whistleblowing system will be useful if the organisation provides a guarantee that every complaint will be considered or followed up for further clarification. It is imperative to form the independent and trusted service provider managing the organisation reporting mechanism. Practically, many Indonesian people still fail to speak up because their reports on deviations were ignored.

Then, through this simple study, we also identify the use of financial incentives (reward) has considerable attention from the participants. It is evidenced by the statistical result shown in Table 6. Our participants generally believe that the availability of incentives, whether it is monetary or non-monetary (e.g. long employment contracts), is one of the best alternative mechanisms to encourage individuals to report wrongdoing in the workplace. This result parallels with an empirical study carried out by Xu and Ziegenfuss (2008), investigating and exploring the impact of reward systems on the whistle-blower's behaviour. They conclude that the existence of cash reward and protection will enhance employees' enthusiasm to do the right thing. They also opine, an incentive, whether it is monetary rewards, might generally be considered the best reinforcer for a whistle-blower to behave appropriately in reporting wrongful activities. According to this perspective, we see the concept of stimulus is essential to the understanding of whistle-blowers' <sup>30</sup> behaviours. Individuals with high positive emotionality exhibit high optimism in reporting any unlawful or unethical conduct that occurs within their organisations. So, once the unconditioned stimulus is specified, it may influence the people cognitive processes, which in turn affect decision making and behaviour regulation.

Table 7 portrays that an anonymous letter is considered as an effective reporting mechanism with an effectiveness score of 4.532, and it is followed by online forms (4.224) and a telephone hotline (4.179). Astonishingly, the tool for in-person reporting has the last rank as an effective reporting mechanism, with an effectiveness score of 2,940. Our respondents think it could danger the whistle-blower.

These results indicate that the anonymity of whistle-blowers is believed to help organisation to protect a whistle-blower from retaliatory action. We think it can be an alternative channel when whistle-blowers protection regulations, in a certain situation, cannot prevent harassment from suspected perpetrators. We identify the organisation's commitment that does not tolerate any retribution against a person for raising a concern is

Types of mechanism	Effectiveness (Rank)	SD	$\alpha$	Sig
Anonymous letter/channel	4.532 (1)	1.261	0.961	0.000**
Online forms	4,224 (2)	1.137	0.980	0.001**
A telephone hotline	4,179 (3)	1.971	0.854	0.000**
A dedicated email address	4,164 (4)	1.961	0.876	0.032**
A dedicated fax number	3,985 (5)	1.146	0.917	0.002**
A dedicated mail address	3,791 (6)	1.192	0.735	0.008**
In-person reporting/ direct approach	2,940 (7)	2.867	0.883	0.000**

**Table 7.**  
Average responses to possible effective reporting mechanism

**Notes:** 1 – not effective; 5 – very effective. This item has been reversed. All questions in this table were scaled positively. \* Significant at the 10% level. \*\* Significant at the 5% level. SD = Standard Deviation,  $\alpha$  = Cronbach's alpha  
**Source:** Authors' own research



paramount for the effectiveness of whistleblowing. This study is consistent with research conducted by Rachagan and Kuppusamy (2013), stating that “anonymous whistleblowing mechanisms would not work in Malaysia or anywhere else for that matter, is not true and is not a good enough reason for choosing not to have one”. It also parallels with Johansson and Carey’s (2016) study revealing that anonymous reporting channels were positively associated with the number of frauds reported. It means that if anonymous whistleblowing is allowed in the organisation, it might encourage more employees to report fraudulent activities (Johansson and Carey, 2016). As such, we think it is too early to conclude anonymous reporting, based on normative points of view, is not helpful for audit committee members to investigate fraud reported. Through an anonymous channel, our participants claim that employees can be beneficial to the organisation to reduce unlawful acts. And, this reporting channel should be reinforced by clear and precise procedure regarding what type of concerns should be reported and how to report.

#### *How to make fraud awareness effective*

Fraudsters are very creative and will come up with various ways to achieve their objectives. Staff, including managers, require to think the unthinkable ways and to be as creative as the fraudsters.

Fraud can be perpetrated by people from different educational and social backgrounds and different levels of an organisation (Epley and Kumar, 2019). As mentioned previously, one of the best possible approaches that can be implemented by an organisation is an increase in fraud awareness for all staff levels, regardless of their position. Such a precaution requires fewer resources than an anti-fraud approach focused on detection and recovery. Besides, when striving to improve an employee’s awareness, the organisation need pay attention to the distribution of anti-fraud training or education for all staff. We identify, it is a pivotal aspect for a well-rounded program in preventing fraud. Barker *et al.* (2008) mention, properly providing fraud awareness training and education help to prevent and detect material wrongdoing at an early stage and also minimise the possibility of the negative consequence of misstatement on the work environment. Table 8 reveals the rank of topics associated with promoting fraud awareness training.

Based on the result provided in Table 8, anti-fraud education is a highly effective fraud prevention mechanism for companies. As we see in Table 8, staffs and managers need to get an understanding of the types of fraud, the consequences of fraud, who perpetrates fraud and why, how to report fraud, how to respond any warning suspicions, how to identify red flags or symptoms as well as fraud risks. By educating management and employees about those aspects, organisation is giving them the tools to help look for and stop fraud. This result may enhance the Rezaee (2004) study, exploring the importance of anti-fraud education, training programs and auditing in improving the quality of financial reports and audit efficacy.

All the employees within the company should be mandated to get involved in anti-fraud education and training. It would be more useful if all staff also are trained to diagnoses the specific alarming symptoms, and to design prevention and detection methods that are pertinent with their department’s functions. Apart from those concerns, factors about encouraging or maintaining staff morale cannot be immortalised and is critical aspect as a new approach to fighting financial crime. In this context, levels of employee morale or loyalty can be reflective of the core values of a company. Creating an ethical culture thus requires thinking about ethics not simply as a belief problem but also as a design problem (Epley and Kumar, 2019). Sylvia and Bayu (2015) note that, in today’s business world, it will be better if enterprises proactively apply the fraud risk management. According to KPMG’s survey (2006) as

Topics	Importance (Rank)	SD	$\alpha$	Sig
Internal control system and fraud deterrence	3.970 (1)	1.126	0.871	0.000**
Understanding of fraud such as; <i>What is and the types of fraud; Who commits fraud, How fraud hurts organisation and employees; How to identify fraud red flags/symptoms and fraud risks, How to report and respond any warning suspicions.</i>	3.940 (2)	1.101	0.856	0.005**
Ways to maintain staff morale	3.821 (3)	1.060	0.761	0.021**
Criminal business	3.791 (4)	1.127	0.703	0.010**
Situations allowing perpetrators commit dishonest acts	3.567 (5)	1.211	0.902	0.011**
Symptoms of profit-motivated crime	3.537 (6)	1.015	0.943	0.000**
Dynamics of organized financial crime	3.522 (7)	1.131	0.914	0.001**
Data analysis and monitoring	3.403 (8)	1.101	0.758	0.020**
Punishment for fraudulent conducts	2.851 (9)	1.114	0.823	0.012**

**Table 8.**

Average response to topics associated with promoting fraud awareness training

**Notes:** 1 – not important; 5 – very important. This item has been reversed. All questions in this table were scaled positively. \* Significant at the 10% level. \*\* Significant at the 5% level. SD = Standard Deviation,  $\alpha$  = Cronbach's alpha

**Source:** Authors' own research

mentioned <sup>2</sup> a study conducted by Sylvia and Bayu (2015), "some important areas for enhancing fraud risk management process should cover a sound ethics policy and code of conduct, a well-defined whistleblowing system, periodic fraud risk assessment, a good internal audit function and pre-employment screening." In this study, we require participants <sup>87</sup> scale those fraud risk management processes. It is intended to identify an aspect that should be a priority for the organisation in dealing with fraud phenomenon. We re-examine those aspects because fraud attacks grow more sophisticated (ACFE, 2018). The responses from our respondents can be found in Table 9.

Our study, as depicted in Table 9, has different results with a survey undertaken by Sylvia and Bayu (2015). Table 9 suggests a different <sup>12</sup> priority in looking at the fraud risk management. We identify, well-written ethical policies and code of conduct are considered as the most important values. Those aspects can be said an underlying framework for

Attributes	Important level (Rank)	SD	$\alpha$	Sig
<sup>41</sup> A sound ethics policy and code of conduct	4.452 (1)	1.557	0.670	0.000**
Periodic fraud risk assessment	3.759 (2)	1.210	0.850	0.000**
A well-defined whistleblowing system	3.657 (3)	1.113	0.862	0.010**
An assessment of suggested control <sup>41</sup>	3.657 (3)	1.136	0.823	0.270
An assessment of likelihood inherent fraud risk	3.643 (4)	1.172	0.718	0.000**
A good internal audit function	3.585 (5)	1.021	0.756	0.040**
Conflict disclosure	3.562 (6)	1.125	0.910	0.312
Pre-employment screening	2.451 (7)	2.121	0.918	0.018**

**Table 9.**

Average response to fraud risk management process

**Notes:** 1 – not important; 5 – very important. This item has been reversed. All questions in this table were scaled positively. \* Significant at the 10% level. \*\* Significant at the 5% level. SD = Standard Deviation,  $\alpha$  = Cronbach's alpha

**Source:** Authors' own research

ethical behaviour to support day-to-day decision making in organisation. They also can serve as a valuable reference, empowering employees to handle ethical problems they encounter in everyday work. The main goal of developing ethical systems is to support a culture of openness, trust and integrity in the organisation. Activities with the highest standards of ethical conduct are highly likely related to a particular level of governance. As such, an organisation with sound corporate governance arrangements may prevent the factors that create opportunities for people to commit occupational fraud. This result is consistent with the previous table (Table 8) that measures associated with the aspects of internal control are very important for organisation to prevent any form of malpractice, improper action or wrongdoing.

Implementing the employees will act in the best interests of the organisation, ethics policy and code of conduct may outline the values of the organisation regarding the way an organisation should behave towards its employees and the way its employees should position themselves towards the organisation. It is not expected that the employees would have ulterior motives and act according to self-interests rather than organisation's interests. Those policies should be publicly disseminated to both employees and business colleagues. If any deviation from such procedures, it should be conveyed to proper authority within the organisation, for example, a compliance officer. These efforts are hoped to reduce practical concerns suggesting that many individuals, in practice, have been feeling far more insecure and experiencing acute anxiety at work (Noon *et al.*, 2013). Importantly, as presented in Table 9, those policies have been viewed by respondents as worth fraud deterrence.

## Conclusion

The paper set out to show the importance of whistleblowing system and fraud awareness. Relating to our study, it is well acknowledged that due to sophisticated *modus operandi* and lack of adequate internal control (KPMG, 2016), whistleblowing system and fraud awareness can be a possible deterrent for fraudulent financial statements and other financial irregularities.

Although there is considerable disagreement on whistleblowing system, our study shows many advantages over its efficacy as a strategic tool for fraud deterrent. Concerning our results focusing on "the voice of the whistle-blower", the contextual factors (e.g. fear of retaliation) have considerable effects on employees' reasoning. We see the contextual variables are crucial in making justification whether they are to blow the whistle. This finding makes sense in light of the theory of justice, suggesting that what people want to do in the future is influenced by their own rational choice. Here, the definition of rational choice is viewed as the outcome of a process which involves assessment and judgement. People tend to evaluate different options and make a decision about which option to choose. Under the decisive situation, the decision maker knows in advance that the decision has to be justified. The effect of justification is to provide good reasons for choosing an alternative action and to reach a better understanding of cases. So, it might be rational if potential whistle-blowers who perceive a threat of retaliation are highly unlikely to blow the whistle than those who do not perceive a retaliatory culture.

We have a different result from Johansson and Carey's (2016) study. Johansson and Carey (2016) mention that their research cannot ascertain a positive association between whistleblowing system and fraud detection. We see there are misconceptions in the Johansson and Carey's (2016) study regarding the main role of whistle-blowers in an organisation. Johansson and Carey cannot distinguish whether the purpose of whistleblowing system is for detecting or deterring fraud. Principally there are fundamental dissimilarities between "detection" and "deterrent" in looking at the role of whistle-blowers.



59 From work completed by Near and Miceli (1995), the whistleblowing system has been defined as *disclosure* by organisation members of illegal, immoral or illegitimate practices that would lead to corrective action. The emphasis of this definition is on a 63-social system". The expectation of organisation from the whistleblowing system is to correct unsafe products or working conditions or to terminate fraudulent or wasteful practice (Miceli and Near, 1985). Consistent with 29's view, Liu *et al.* (2015) argue that whistleblowing is conceptually focused on disclosing wrongdoing. For instance, "the employee tells the supervisor that a worker often makes operational mistakes because the worker's competence is low" (p. 109). In this regard, we agree with Xu and Ziegenfuss (2008) that the role of whistleblowing plays a decisive role in strengthening accountability mechanisms by arising concern in the organisation. In its simplest form, the act of whistleblowing, here, is concerned with the potential exposure to fraud risks. This means, the actions from whistleblowers are mainly to prevent the fraud happening in organisation. So, if we make flawed reasoning towards the role of whistleblowing system, whether it is for the prevention or detection of fraud, it may offer overlapped understanding that brings ambiguous empirical results.

We have similar views to ACFE (2018) that people who are not sensitive to the vulnerabilities that lie in the organisational systems can bring negative effects on the business activities. We identify the role of fraud awareness as a human capital investment that increase sensitivity on identifying fraud symptoms and discouraging participation in crimes. By increasing employees' fraud awareness, they may know the practicalities of how to follow-up allegations and incidents of fraud or wrongdoing, from first notification through to the reporting of findings. So, anti-fraud education, always has been, and always will be, the most effective way to build long-term approaches to countering crime and violence.

The role of 60 fraud awareness also has been reported in the Barker *et al.*'s (2008) 60-y. They explore the pervasiveness of credit card frauds and the effects of such frauds on credit card companies, merchants and consumers. They describe types of credit card fraud and propose some initiatives to prevent them from happening. Based on their understanding on fraud schemes, they argue that beside precaution programs to deter credit card frauds, building fraud awareness will aid individuals and merchants to anticipate and prevent credit card frauds (p. 399). In such circumstances, organisations, as we have been identified, have to consider the acknowledgment 95 of broad fraud awareness. It is because accounting literature has recognised the fact that the effectiveness of internal control systems can be weakened by collusion (Free and Murphy, 2015).

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#### Further reading

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