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ORIGINAL PAPER

'Whistleblowing Triangle': Framework and Empirical Evidence

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Abstract
This work empirically tests the concept of the 'whistleblowing triangle,' which is modeled on the three factors encapsulated by the fraud triangle (pressure or financial incentives, opportunity and rationalization), in the Indonesian context. Anchored in the proposition of an original research framework on the whistleblowing triangle and derived hypotheses, this work aims to expand the body of knowledge on this topic by providing empirical evidence. The sample used is taken from audit firms affiliated with both the big 4 and non-big 4 companies operating in Indonesia. The results of analysis using the PLS-PM method found a significant relationship between the components of the whistleblowing triangle and the intention of blowing the whistle. We found that financial incentives are the most significant predictor of auditors' intention to blow the whistle in Indonesia. Other components, such as opportunity and rationalization, also play an important role in supporting auditors' intention to blow the whistle. Our findings also suggest that related pressures are the top priority for audit firms in Indonesia to consider in increasing whistleblowing intention. We expand the previous literature on whistleblowing which has been derived from the components of the fraud triangle (Brown et al. in Account Public Interest 16(1):28–56, 2016; Smaili and Arroyo in J Bus Ethics, https://doi.org/10.1007/s10551-017-3663-7, 2017) by adding empirical evidence.

Keywords Business ethics · Whistleblowers · Whistleblowing intention · Whistleblowing triangle · Reporting fraud

Introduction

The main objective of this work is to empirically test a recently developed concept—the whistleblowing triangle—in the context of an emerging economy (Indonesia). This research is anchored in certain recent propositions which suggest that the elements of the fraud triangle can be adapted to understand the intention to report wrongdoing in organizations (Brown et al. 2016), which has prompted the idea of the 'whistleblowing triangle' (Smaili and Arroyo 2017). Thus, we aim to expand the emergent literature on the elements that may explain the intention to report wrongdoing in organizations by proposing and empirically testing a research framework. It is worth mentioning at this juncture that this work focuses on the *intention* of whistleblowing (such as Brown et al. 2016), rather than on the *action* of reporting wrongdoing (for example, Smaili and Arroyo 2017).

The vital role of whistleblowers in the effort to address business ethics has been recognized as increasingly important and challenging, especially in countering unethical practices in a complex organizational world (Andrade 2015; Culiberg and Mihelič 2017; Hoffman and Schwartz 2015). According to the report of the Association of Certified Fraud Examiners (ACFE) in (2016), the number of fraud cases increased by 60% from a total of 1483 cases in 2014–2410 cases in 2016, with a total loss of approximately $6.3 billion (ACFE 2016). At the same time, the facts show that whistleblowing has become more and more desirable as a consequence of the Dodd-Frank Act of 2010, with award recipients increasing by almost 322% from a total of 99 people in 2015–418 people in 2016 (Internal Revenue Service,

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2016). Unfortunately, this increase has not been accompanied by advanced insights, and the explanatory factors related to intentions to report wrongdoing in organizations have not been thoroughly studied. To date, few studies have actually investigated these issues (Andon et al. 2016; Berger et al. 2017; Stikeleather 2016; Reinstein and Taylor 2017; MacGregor and Stuebs 2014a), and there is a lack of empirical evidence.

We argue that, deriving a model from the elements of the fraud triangle (Dorminey et al. 2012; Free 2015; Trompeter et al. 2013), it is possible to understand the intention to blow the whistle based on three components: pressure or financial incentive, opportunity and rationalization of intention to reporting wrongdoing. However, the urgent demand to understand the nature of the relationship between the whistleblowing triangle—a term proposed by Smaili and Arroyo (2017) while studying real cases of the action of reporting wrongdoing—and the intention of reporting misconduct continues to exist (Brown et al. 2016; Gao and Brink 2017; Culiberg and Mihelič 2017). The current research aims to extend the literature that has adapted the elements that comprise the fraud triangle (Smaili and Arroyo 2017; Brown et al. 2016) to understand 'whistleblowing intention,' a body of knowledge labeled by Smaili and Arroyo (2017) as the 'whistleblowing triangle' in relation to the action of blowing the whistle.

Most cases of fraud occur in the workplace, where the main actors are executives, managers and employees; this includes financial fraud, corruption and asset misappropriation (Cheng et al. 2017; Latan et al. 2017; Anand et al. 2015).Under the mandate of the Sarbanes–Oxley Act of 2002, professional accountants are required in order to provide confidence in financial reporting. The role of accountants thus becomes crucial, given their access to accounting information, and they are often in a favorable position to uncover wrongdoing and blow the whistle (Brown et al. 2016; Latan et al. 2016; DeZoort and Harrison 2016; Dellaportas 2013). In auditing assignments and auditor–client dynamics, accountants may disclose any material misstatements discovered when giving their opinions. However, it often occurs that auditors and clients work together to deceive the public (e.g., opinion shopping). Here, the role of other accountants in the auditing firm becomes crucial to whistleblowing (Boo et al. 2016), given the absence of a regulatory body for auditing in Indonesia. The consideration of whether or not to blow the whistle can be affected by various key factors, such as pressure or financial incentive, opportunity and rationalization, before leading to the ethical intention to report wrongdoing (Latan et al. 2017; Schwartz 2016; Murphy and Dacin 2011).

According to Smaili and Arroyo (2017), pressure is one component of the fraud triangle that can be adapted, in this work, to understanding the intention to blow the whistle. While pressure can be associated with a number of positive and negative feelings, in this work we define pressure as the burden of feelings associated with future threats as a consequence of reporting misconduct. We consider the negative aspect of pressure, given that there is no protection for the whistleblower, so that negative pressure when blowing the whistle will be stronger than positive (e.g., ethical or professional pressure). Whistleblowers often face many negative pressures such as fear of retaliation, loss of reputation and increased stress levels (Young 2017; Webber and Archambeault 2015). In some cases, high pressure leads the whistleblower to choose silence and refrain from blowing the whistle (Brown et al. 2016; MacGregor and Stuebs 2014a). In contrast, the provision of large financial incentives becomes the attraction for whistleblowers to blow the whistle (Andon et al. 2016; Brown et al. 2016; Stikeleather 2016). Some researchers have pointed out that financial incentives (including reputation and career) are the most important factors for professional accountants in reporting misconduct (Andon et al. 2016; Berger et al. 2017; Dyck et al. 2010; Guthrie and Taylor 2017). In addition to considering potential negative and positive impacts, a person's intention to blow the whistle will also depend on the opportunities and rationalizations available at the time. A whistleblower sees opportunities in supportive resources such as reporting channels, organizational support and norms and rules of professionalism such as a code of ethics (Murphy and Free 2016; Smaili and Arroyo 2017). Rationalization can be understood as a cognitive dissonance-related process used to convince oneself that one's actions are carried out in accordance with existing ethical and professional standards (Festinger 1957; McGrath 2017; Cooper 2007). Rationalization is usually used to justify positive behaviors (such as blowing the whistle), to mitigate the pressure caused by this action (Morvan and O'Connor 2017).

The critical studies conducted by Gao and Brink (2017), Smaili and Arroyo (2017) and Brown et al. (2016) provide a conceptual direction and inspiration for conducting research on the whistleblowing triangle, as they suggest that concepts concerning fraud reporting and the fraud triangle's components can be adapted to understanding the factors that lead people to blow the whistle. For example, Gao and Brink (2017) and Smaili and Arroyo (2017), after reviewing accounting research related to whistleblowing, suggest testing all components of the whistleblowing triangle against the intention (Gao and Brink 2017; Lee and Xiao 2018) and the action (Smaili and Arroyo 2017) of blowing the whistle. To date, no research has investigated these factors empirically, and understanding this phenomenon through a quantitative approach is considered a persistent gap in the literature. In other words, no research has empirically tested the components of the flourishing concept of the whistleblowing triangle. For example, only Smaili and Arroyo (2017) have

qualitatively studied the practical validity of the idea of the whistleblowing triangle, arguing that it is important to know the role of these factors in influencing whistleblowing action in creating good corporate governance, and Brown et al. (2016) have adopted the elements of the fraud triangle to understand the intention to blow the whistle. Therefore, this study aims to test the whistleblowing triangle model based on empirical and quantitative evidence from public accountants in Indonesia.

We tested this model in Indonesia because, based on the 2016 ACFE report, the Asia-Pacific region ranked second highest for fraud cases, with a total of 42 cases reported. In addition, Indonesia ranks fifth in number of fraud cases as found by ACFE in 2016, alongside countries such as South Africa, India, Nigeria and China (Latan et al. 2016; Maroun and Atkins 2014; Maroun and Solomon 2014), which indicates that social acceptance of whistleblowing is quite high. On the one hand, the absence of legislation that guarantees protection for whistleblowers creates a dilemma for public accountants in reporting misconduct. On the other hand, professional norms and codes of ethics, organizational support, availability of reporting channels and financial incentives give an impetus for accountants to blow the whistle. However, to date, no research in the whistleblowing literature has provided evidence and analysis on whether these factors play an effective role in supporting the intention to report misconduct.

Our work contributes to and extends the whistleblowing literature in three ways. This is the first study to empirically test the whistleblowing triangle, where all the components derived from the fraud triangle are considered in a single comprehensive model (Smaili and Arroyo 2017). Although several recent studies have been conducted in the same area (Andon et al. 2016; Berger et al. 2017; Brown et al. 2016; MacGregor and Stuebs 2014a), there is a missing link that has not been tested and needs to be explored. For example, previous research does not take into account the quantitative and empirical testing of the whistleblowing triangle (Smaili and Arroyo 2017). Although the study conducted by Brown et al. (2016) has examined some components of the whistleblowing triangle (such as incentives and opportunities), other key factors such as pressure and rationalization have not been investigated empirically.

Second, previous research has empirically tested the components of the whistleblowing triangle within a single context (Andon et al. 2016; Brown et al. 2016; Berger et al. 2017; Stikeleather 2016), without considering internal, external and anonymous reporting channels (Brink et al. 2017; Culiberg and Mihelič 2017; Latan et al. 2017; Park and Blenkinsopp 2009; Smaili and Arroyo 2017). This study adds to the evidence, reinforces the existing findings and suggests that the differences between reporting channels may affect the whistleblower's intention. Finally, this study extends the state-of-the-art research on whistleblowing by providing evidence from Indonesia. Based on our best knowledge, no studies have been conducted in Indonesia to test the whistleblowing triangle model, where our findings provide preliminary evidence on the relationship between the components of the whistleblowing triangle in public accountants' intention to blow the whistle in Indonesia.

The remainder of this paper is organized as follows: The next section presents the theoretical background and development of hypotheses, followed by the research method design. Next, we present our empirical results. Finally, we discuss the results and provide implications that may be useful for both academicians and practitioners.

Theoretical Background and Development of Hypotheses

In this study, we empirically test the whistleblowing triangle, in which the key factors were adapted from the fraud triangle model developed by Cressey (1973). There are three main factors that serve as explanatory forces: pressure or financial incentive, opportunity and rationalization. Inspired by previous studies (Andon et al. 2016; Boo et al. 2016; Brown et al. 2016; Berger et al. 2017; Rose et al. 2016; Smaili and Arroyo 2017), we argue that these factors may affect the intention of public accountants to blow the whistle in an emerging economy. Overall, we aim to achieve three goals with our theoretical framework and development of hypotheses. First, in order to capture the complexity of this issue, we test all components of the whistleblowing triangle. Second, aided by this model, we advance insights into the whistleblowing literature, where key factors are investigated. Third, we use the model to test our hypotheses and provide new evidence on the whistleblowing triangle through a business ethics perspective in an emerging economy.

The Whistleblowing Triangle

In a seminal work, Cressey (1973) proposed a model capable of explaining unethical or fraudulent practices within organizations. These factors are pressure or financial incentive, opportunity and rationalization, and are known as the fraud triangle. The fraud triangle's components (Dellaportas 2013; Free 2015; Lokanan 2015; Schuchter and Levi 2015) can be adapted in order to understand why people blow the whistle (Smaili and Arroyo 2017). However, until now, little research has been done to investigate and provide concrete evidence on the whistleblowing triangle model, either in terms of intentions (Brown et al. 2016; Smaili and Arroyo 2017). In this work, whistleblowing intention is composed of pressure as a threat; the financial incentives offered, the opportunity to report, and the willingness to rationalize,

taking into consideration the type of reporting channels of whistleblowing intention.

Pressure is an obstacle that refers to the burden of feelings or future threats faced by whistleblowers. There is no protection of the whistleblower in Indonesia, making this negative aspect of pressure more prominent in our study. However, pressure from the positive side (e.g., ethical or professional pressure) may be stronger if protection against the whistleblower was guaranteed. Furthermore, financial incentive is a motivational factor that can encourage whistleblowers to report wrongdoing. It is a driver to increase the intention to blow the whistle. In addition, opportunity is the availability of resources such as reporting channels, organizational support, norms and codes of conduct, which make individuals feel comfortable blowing the whistle. Finally, rationalization is the willingness to justify whistleblowing as good behavior, in accordance with ethical and moral standards.

In some countries, including Indonesia, there are policies or regulations governing whistleblowing.[1] Indeed, the issue of whistleblowing received attention in Indonesia in 1998, during the economic crisis. The weak system of corporate governance in Indonesia led to wrongdoings that were difficult to detect. To that end, the National Committee on Governance, as the pioneer of whistleblowing in Indonesia, introduced a system to prevent ethical violations in organizations. Every organization in Indonesia currently has a whistleblowing system to support good corporate governance. Some rules were created for the protection of whistleblowers in Indonesia, such as Law No. 13 of 2006. However, the Whistleblower Protection Act (WPA) in Indonesia has not fully protected whistleblowers from various risks and retaliation.

More comprehensive research on the whistleblowing triangle is still needed (Smaili and Arroyo 2017). Given that the empirical research findings on the whistleblowing triangle are still limited to factors such as pressure and rationalization (Andon et al. 2016; Berger et al. 2017; Brown et al. 2016), it is important to advance insights in this area. In the following sections, we will describe the components of the whistleblowing triangle and formulate the hypotheses to be tested.

Pressures Affecting Whistleblowing

The term 'pressure' contains negative connotations, and pressures are usually associated with challenges that emerge from the organizational context. Pressure is a burden of feelings associated with future threats, so this factor can interfere with a potential whistleblower's motivation to blow the whistle. This is because pressure can have a negative impact on the life and career of whistleblowers. As described by the theory of planned behavior and organizational justice, whistleblowers are under personal, organizational and social pressures (Kaplan and Whitecotton 2001; Miceli et al. 2012). These include psychological pressures such as loss of reputation and injustice encountered that encourage the whistleblower to choose silence and refrain from blowing the whistle. The external pressures we identify as barriers are: (1) risk of being fired; (2) risk of unfair treatment; (3) fear of future retaliation; (4) risk of loss of reputation. In the Indonesian environment, whistleblowers often remain silent when confronted with unethical conduct, which can carry professional implications such as violating ethical codes, leading to sanctions or revocation of practice licenses.

In addition, the internal pressures experienced by the whistleblower also complicate whistleblowing intention. Internal factors such as values, morals, religious loyalty and workplace satisfaction are also a major source of the whistleblower's resolve to blow the whistle. However, in the context studied, protection for whistleblowers in Indonesia is very low. Thus, we argue that acquiescence to negative pressure is stronger than positive pressure. Some whistleblowers have the courage to report wrongdoing, despite knowing the risks they will face in the future. This behavior is generally associated with an internal locus of control and high moral reasoning possessed by individual whistleblowers (Chiu 2003; Berger et al. 2017; Watts and Ronald Buckley 2017). However, we argue that external pressure plays a more important role in influencing whistleblowers' intentions to report wrongdoing in highly uncertain conditions. When the threat faced is greater than the benefit received (Culiberg and Mihelič 2017; Smaili and Arroyo 2017; Brown et al. 2016), then the whistleblower will choose to remain silent. Previous research indicates that pressure has a negative effect on the intention to blow the whistle (MacGregor and Stuebs 2014a, b). From the above discussion, the following hypothesis can be derived:

H1 Pressure has a negative effect on whistleblowing intention.

Financial Incentives to Blow the Whistle

Financial incentives are designed to encourage anyone to report relevant information about wrongdoing such as non-compliance, tax evasion, bribery, embezzlement and accounting fraud. Whistleblowers can report such information through anonymous online systems and receive compensation as deemed appropriate by regulations or top management (Guthrie and Taylor 2017; Seifert et al. 2010; Soni et al. 2015). Financial incentives provide personal benefits to

[1] Vandekerckhove (2006) describes the whistleblowing system in several other countries, such as the USA, Australia, New Zealand, UK, South Africa, Japan, Belgium and Germany.

whistleblowers and can become the main driver for blowing the whistle. In contrast, social or moral incentives (Brown et al., 2016) are usually difficult to quantify and depend on social norms, moral standards, culture and the environment. However, social and moral incentives will be felt more strongly when there is wider acceptance of ethical behavior and stricter whistleblowing legislation. Therefore, we argue that financial incentives are more appropriate and easier to apply in this work, given the environmental and cultural context and the weakness of whistleblower protection in Indonesia. This assertion is supported by recent research which concludes that a scheme of financial incentives can increase the whistleblower's intention to blow the whistle (Andon et al. 2016; Guthrie and Taylor 2017; Rose et al. 2016; Stikeleather 2016). However, if a minimum threshold is determined, whistleblowers will reframe their decisions in reporting misconduct and consider this as an economic rather than an ethical decision (Berger et al. 2017; Brown et al. 2016). In other words, the whistleblower may delay blowing the whistle until the wrongdoing grows and generates substantial losses.

Brink et al. (2013) question whether such incentives have any effect on the intention to blow the whistle, as most organizations cannot provide the same level of reward as is determined by the regulations. Thus, the question arises whether internal incentives will effectively encourage whistleblowers to report fraud in the workplace. Internal financial incentive programs within organizations are generally scarce, and there is little research directly addressing their effectiveness (Miceli et al. 2009; Near and Miceli 1995). Whistleblowers often disclose that financial incentives play a major role in their decision to blow the whistle. Several previous studies, in which the amount of compensation is taken into account, have found that financial incentives can increase whistleblowers' intention to blow the whistle (Andon et al. 2016; Boo et al. 2016; Berger et al. 2017; Brown et al. 2016; Rose et al. 2016; Stikeleather 2016). From the above discussion, the following hypothesis can be derived:

H2 Financial incentives have a positive effect on whistleblowing intention.

Opportunity to Blow the Whistle

The opportunity to report wrongdoing is the second important element of the whistleblowing triangle (Brown et al. 2016; Smaili and Arroyo 2017; Dellaportas 2013). The opportunity to report misconduct is presented to every individual (e.g., a professional accountant) when the moral or legal obligation to report such action is supported by existing organizational and standard policies (Brown et al. 2016; MacGregor and Stuebs 2014a). Some of the factors that increase the opportunity to blow the whistle vary between different organizational support systems, workplace norms and anonymous reporting channels. Organizational support and legislation for the protection of whistleblowers may affect opportunities to disclose wrongdoings where an anonymous reporting channel is available. Furthermore, the norms prevailing in the workplace also foster ethical awareness of reporting misconduct. Some researchers analogize the opportunity for such disclosure as procedural justice (Seifert et al. 2010; Soni et al. 2015).

Opportunities can also arise when whistleblowers have sufficient skills and knowledge, such as information technology and technical capabilities, which can help in the act of blowing the whistle (Boyle et al. 2015; Wolfe and Hermanson 2004). In addition, the characteristics of the wrongdoing observed may also affect the opportunity and intention to blow the whistle. For example, the magnitude of the losses, the persuasiveness of the evidence of fraud, proximity to the perpetrators of fraud and the long-term impact of fraud may all affect the decision-making process of blowing the whistle (Brown et al. 2016; Latan et al. 2016; Park and Blenkinsopp 2009; Smaili and Arroyo 2017). From the above discussion, the following hypothesis can be derived:

H3 Opportunity has a positive effect on whistleblowing intention.

Rationalization of Whistleblowing

Rationalization is a process of internal justification for a whistleblower when choosing a particular action (or inaction) according to moral standards when faced with ethical problems (Dellaportas 2013; Lokanan 2015; Murphy and Dacin 2011; Brown et al. 2016). This is a mechanism whereby a whistleblower determines in his or her own mind whether the wrongdoing discovered should be reported. For those with higher moral standards, the process of rationalization may be easy, because they do not have to convince themselves that the wrongdoing is illegal or immoral. Conversely, for those with lower moral standards, the process of rationalization may be difficult. People with such moral standards may rethink and remain silent when faced with wrongdoing. Some researchers have identified rationalization as a very difficult process to understand (Free 2015; Murphy and Dacin 2011), because it involves many psychological components. For example, Murphy and Dacin (2011) delineated seven categories of rationalization based on two concepts: moral disengagement theory and cognitive dissonance theory. Rationalization is the process of cognitive justification behind the whistleblower's decision to blow the whistle (Tsang 2002; Smaili and Arroyo 2017).

Following cognitive dissonance theory (Festinger 1957; Cooper 2007), we argue that whistleblowers often consider the decision to blow the whistle as a difficulty that needs to be

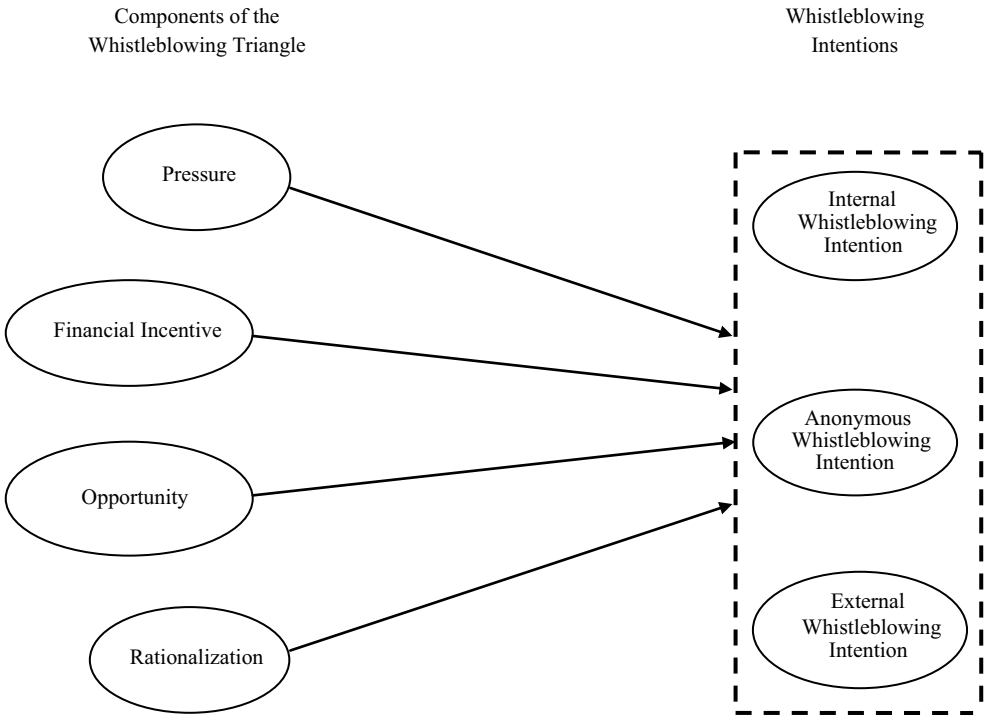

Fig. 1 Theoretical framework to understanding the 'whistleblowing triangle'

justified according to moral standards. Cognitive dissonance theory (Festinger 1957; Cooper 2007) explains that when whistleblowers make tough choices, e.g., between blowing the whistle or choosing to be silent, they need to rationalize their decision and consider reducing the impact or future threat it may have (Murphy and Free 2016; Smaili and Arroyo 2017; Tsang 2002). While the situation may be clear in terms of facts, in many cases individuals need to consider the context or circumstances of a particular situation to make ethical decisions (Murphy 2012; Schwartz 2016). Rationalization can be effective in improving positive behaviors (e.g., blowing the whistle) only when a moral standard can be trusted. Several previous studies have indicated that rationalization has a positive effect on intention to blow the whistle (Brown et al. 2016; Smaili and Arroyo 2017; Schwartz 2016). From the above discussion, the following hypothesis can be derived:

H4 Rationalization has a positive effect on whistleblowing intention.

Figure 1 portrays the research framework empirically tested in this work.

Research Method

Sample Selection and Data Collection

In this study, our sample was composed of professional accountants working for audit firms. Data were collected using a questionnaire-based survey. To ensure that our questionnaire could be understood by the respondents and was unbiased, we conducted a pretest by discussing the draft with three experienced professional academics to assess the content validity. Furthermore, an enhanced version of this instrument was sent to ten audit firms to gather preliminary results on the validity and reliability of the indicators in measuring variables. The pretest results indicated that this instrument was feasible for use in the next stage. Once we were satisfied with the feasibility of the instrument, we sent the questionnaire to 350 audit firms representing a total of 1000 auditors. The audit firms' contact details were obtained from the Indonesian Institute of Certified Public Accountants (IAPI) directory. Finally, to improve the response rate, we took a more personal

approach by calling targeted respondents and ensuring the confidentiality and anonymity of the responses. For the purpose of non-response bias testing (Dillman et al. 2014), the time period we provided for completing this survey was 3 months.

The data were collected between June and August 2017, and at the end of the process we had received a return of 237 questionnaires, of which 14 were incomplete. Thus, the number of valid questionnaires we obtained is 223, or a 22.3% response rate. Of the 223 complete questionnaires, 29.68% came from audit firms affiliated with the 'big 4' audit firms operating in Indonesia, with the rest coming from non-big 4 firms. Our *t* test results showed that there was no statistically significant difference ($p < 0.05$) between public accountants from big 4 and non-big 4 firms. We considered social desirability bias when investigating ethical issues (Randall and Fernandes 2013; Chung and Monroe 2003).[2] Dalton and Ortegren (2011) and Jo et al. (1997) recommend comparing two different sources for the detection of this bias. To test this bias, we selected 10 respondents at random after the questionnaire was returned, and asked them the same questions in a short interview. Given that this bias is difficult to detect, such interviews offer an advantage in searching for this bias. Based on the results of our interviews with the respondents, we found no difference in the answers given between the two methods. In other words, there is no social desirability response bias problem intervening in our results.

We also conducted statistical testing to identify any difference between those who responded early compared to those who responded late. The results of the analysis showed no significant difference in the responses ($p < 0.05$), which indicates no non-response problem of systematic bias interfering with our results (Dillman et al. 2014). In addition, the common method bias problem (MacKenzie and Podsakoff 2012) was tested using a measured latent marker variable (MLMV) approach.[3] The results of the analysis show that there is no common method bias problem with the data. A summary of respondent profiles is given in Table 1.

Table 1 Response rate and profile of respondents

Survey result	Frequency	Percent
A. Response rate		
External auditors, initial = 1000	237	23.7
Incomplete questionnaires	14	1.4
Response rate	223	22.3
B. Profile of respondents		
Gender		
Male	159	71.3
Female	64	28.7
Total	223	100
Organizational position		
Senior audit staff	126	56.5
Junior audit staff	97	43.5
Total	223	100
Academic qualifications (education)		
Bachelor's degree	132	59.2
Master's degree and doctorate	91	40.8
Total	223	100
Professional qualifications		
CPA	108	48.5
QIA and CIA	75	33.6
Unqualified	40	17.9
Total	223	100

Measures and Scales

All the questionnaire items used in this study are adapted from previous research in the business ethics literature. We assume that the items have been tested and have good unidimensionality. The instrument consists of three main parts, the first of which describes the purpose of the study. The second section obtains the respondent's demographic information, while the third section presents the scenarios and questions related to the variables to be studied. Given the difficulty in measuring, identifying and observing unethical behavior that occurs in the real world, scenario approaches are commonly used in research in accounting and ethics (Andon et al. 2016; Boyle et al. 2015; Latan et al. 2016; MacGregor and Stuebs 2014a; Berger et al. 2017). We used this approach by providing several case scenarios and asking respondents to position themselves as actors in the situation. The scenarios used in this study were adapted from the whistleblowing triangle literature (MacGregor and Stuebs 2014a, b; Berger et al. 2017) which highlighted various cases of fraud.

To measure the intention of whistleblowing variable, we adapted the instruments developed by Park et al. (2008), containing a total of 10 items divided into three types of reporting channels: internal, external and anonymous. Respondents were asked about the reporting channel they would select to blow the whistle when discovering wrongdoing. All aspects of intention to blow the whistle were measured using a 7-point Likert scale, from 1 = not at all to 7 = very much. Furthermore, to measure the components of whistleblowing triangle, we adapted the instrument developed by Brown et al. (2016), Murphy (2012) and Murphy and Free (2016), with modifications. Indicators for measuring the aspects of

[2] Social desirability response bias is broadly understood as the tendency of individuals to deny socially undesirable traits and behaviors and to admit to socially desirable ones.

[3] The MLMV approach has several advantages compared to other techniques. To use this approach, the indicators should be included in the initial data collection.

the whistleblowing triangle consisted of a total of 15 items, divided between each component (see Table 3). Respondents were asked about the pressure, financial incentive, opportunity and rationalization experienced when discovering wrongdoing. All aspects of the whistleblowing triangle were measured using a 7 point Likert scale, from 1 = not likely to 7 = very likely.

Data Analysis

The data analysis approach used is a component-based SEM, where the partial least squares-path modeling (PLS-PM) method is selected. PLS-PM is a second-generation analysis technique that allows researchers to examine the relationship between unobserved variables simultaneously. Some of the advantages we considered when selecting this method (Aguinis et al. 2018; Ramli et al. 2018) are as follows: (1) PLS-PM allows for testing complex relationships, where there are many constructs and indicators in the model; (2) PLS-PM is a useful tool for the purpose of predicting relationships between variables, when the tested model is still in its early stages; (3) the recent development of PLS-PM has been very fast, which has given goodness-of-fit measures to local models; (4) the PLS-PM approach provides some of the latest statistical measures such as confidence intervals in hypothesis testing, effect size for assessing the contribution of each predictor, heterotrait–monotrait (HTMT) ratio for discriminant validity and importance-performance map analysis (IPMA). In general, this method is suitable for research focusing on predictions, testing complex models or exploratory research. Since PLS-PM is a nonparametric method, parametric assumptions about whether the data are normally distributed or the type of data are not required (distribution-free). However, assumptions such as sample size and collinearity need to be considered. The sample size required to run the PLS-PM algorithm is about 10 times the number of structural paths in the model (Hair et al. 2017; Latan and Noonan 2017). From this rule, our sample size meets the minimum sample requirements. In addition, using the gamma-exponential method (Kock and Hadaya 2018), the minimum required sample size is 160 cases, which this study meets.

Overall, data analysis in this study was conducted in four stages. First, we assessed the measurement model to ensure every indicator was reliable and valid. Second, we assessed the structural model by looking at the coefficient of determination (R^2), effect size (f^2), Q^2 predictive relevance and goodness-of-fit model. In addition, we also tested the proposed hypothesis using a 95% confidence interval through the bootstrapping process. Finally, we ran IPMA to enrich the findings of our analysis and ascertain the importance of the variables in the whistleblowing triangle (Aguinis et al. 2018; Sarstedt et al. 2017).

Results and Discussion

We used the SmartPLS 3 program for data analysis (Ringle et al. 2015) by selecting a weighting scheme (path); the maximum number of iterations on the PLS algorithm is 300. At the bootstrapping stage, we chose a bias-corrected and accelerated (BCa) bootstrap with are subsamples number of 5000 and 5% significance (one-tailed). The results obtained are described in the following sections.

Measurement Model Assessment

To assess the measurement model, we looked at the values of loading factors and average variance extracted (AVE) for convergent validity. The loading factor value for each variable indicator in the model should be > 0.7, and the AVE should be > 0.5. However, a loading factor value of > 0.5 was still acceptable, as long as the AVE value meets the requirements to strengthen the content validity (Hair et al. 2017; Latan and Noonan 2017; Sarstedt et al. 2017). In addition, we also assessed the reliability of constructs using ρ_{-A}. A ρ_{-A} value greater than 0.70 shows that the indicator has good consistency in measuring constructs in the model (Bandalos 2018; Price 2017). The results of our analysis in Tables 2 and 3 confirm that all indicators for variables (whistleblowing intention and whistleblowing triangle) have met convergent validity and reliability, which means that the indicators demonstrate consistency and are able to explain constructs.

Furthermore, we also assessed discriminant validity using the Fornell–Larcker criterion and HTMT. The variables within the model satisfy discriminant validity if the square root of AVE is greater than the correlation between the constructs. From the results of the analysis in Table 4, we found that each square root of AVE on the diagonal line is greater than the correlation between constructs in the model, which indicates no high correlation between constructs or that the variables in the model have good discriminant validity. We also used HTMT to test discriminant validity. This is a superior measure which overcomes the bias of the previous approach (Latan et al. 2017; Latan and Noonan 2017). The HTMT value was required to be < 0.90 for all constructs in the model. From the analysis results in Table 4, it was found that all HTMT values met this rule of thumb.

Structural Model Assessment

After confirming that all the indicators of the variables were reliable and valid in the first step (see Fig. 2), the next step was to assess the results of the structural model and hypothesis testing. Since the PLS-PM algorithms use the iteration

Table 2 Construct indicators and measurement model of whistleblowing intentions

Indicators/items	Code	FL[a]	AVE	ρ_{-A}
Internal whistleblowing (IWB)				
Report it to the appropriate persons within the firm	IWB1	0.865	0.722	0.879
Use the reporting channels inside of the firm	IWB2	0.873		
Let upper-level management know about it	IWB3	0.881		
Tell supervisor about it	IWB4	0.775		
External whistleblowing (EWB)				
Report it to the appropriate authorities outside of the firm	EWB1	0.842	0.693	0.856
Use the reporting channels outside of the firm	EWB2	0.857		
Provide information to outside agencies	EWB3	0.825		
Inform the public about it	EWB4	0.805		
Anonymous whistleblowing (AWB)				
Report it using an assumed name	AWB1	0.932	0.867	0.847
Report the wrongdoing but don't give any personal information	AWB2	0.930		

[a]FL is factor loading

Table 3 Construct indicators and measurement model of 'whistleblowing triangle'

Indicators/items	Code	FL[a]	AVE	ρ_{-A}
A. Pressure (PRS)				
Risk of being laid off from the firm	PRS1	0.902	0.841	0.939
Treated unfairly within the firm	PRS2	0.903		
Fear retaliation	PRS3	0.928		
Risk of losing reputation	PRS4	0.936		
B. Financial Incentive (FNI)				
Stand to gain financially by reporting wrongdoing	FNI1	0.936	0.851	0.844
Stand to gain in reputation by reporting wrongdoing	FNI2	0.908		
C. Opportunity (OPR)				
The audit firm hinders reporting (or ignoring it)	OPR1	0.828	0.665	0.835
Difficulties faced in the process of reporting	OPR2	0.839		
Reporting likely to be ineffective in ending the wrongdoing	OPR3	0.816		
Retaliation by the audit firm	OPR4	0.777		
D. Rationalization (RNL)				
Helping the company in this situation	RNL1	0.808	0.740	0.914
Helping someone else by reporting wrongdoing	RNL2	0.863		
Not considering whether the action was right or wrong at the time	RNL3	0.904		
Not considering the consequences of this action	RNL4	0.869		
Did not think this action was so bad	RNL5	0.856		

[a]FL is factor loading

method following multiple regression series, the path coefficient interpretation in PLS-PM is equal to the standardization of regression coefficients. In addition to this, the interpretation of adjusted r-square, variance inflation factor (VIF), effect size (f^2) and predictive relevance (Q^2) follow the recommended values as per the literature on PLS-PM (Hair et al. 2017; Latan and Noonan 2017; Sarstedt et al. 2017).

Before we describe the analysis results from this second step in more detail, we will first describe the collinearity testing of the structural model. To assess collinearity, we use the same measure in multiple regression. The recommended VIF values < 3.3 or < 5 are still acceptable for all variable predictors in the model (Henseler et al. 2017; Field 2016). The results of the analysis in Table 5 show that there is no collinearity problem interfering with our results. Furthermore, we evaluated the structural model by looking at the coefficient of determination (R^2 or adjusted R^2), f^2 and Q^2. The coefficient of determination measures the predictive power of the model and this coefficient represents the amount of variance in the endogenous variable that can be explained by all exogenous variables. A coefficient of

Table 4 Correlations and discriminant validity results

Construct	Mean	SD	1	2	3	4	5	6	7
AWB	4.81	1.33	**(0.931)**	0.742	0.650	0.788	0.751	0.711	0.676
EWB	5.43	1.22	0.638*	**(0.832)**	0.745	0.846	0.687	0.718	0.771
FNI	5.43	1.30	0.547*	0.632*	**(0.923)**	0.717	0.680	0.585	0.563
IWB	4.93	1.25	0.677*	0.740*	0.616*	**(0.849)**	0.843	0.779	0.739
OPR	4.80	1.39	0.631*	0.586*	0.572*	0.731*	**(0.815)**	0.828	0.738
PRS	3.23	1.56	− 0.635*	− 0.647*	− 0.522*	0.708*	0.735*	**(0.917)**	0.838
RNL	5.07	1.49	0.595*	0.680*	0.494*	0.660*	0.649*	− 0.776*	**(0.860)**

Diagonal and bold elements are the square roots of the AVE

*Correlation is significant at the 0.05 level (2-tailed). Below the diagonal elements are the correlations between the construct values. Above the diagonal elements are the HTMT values

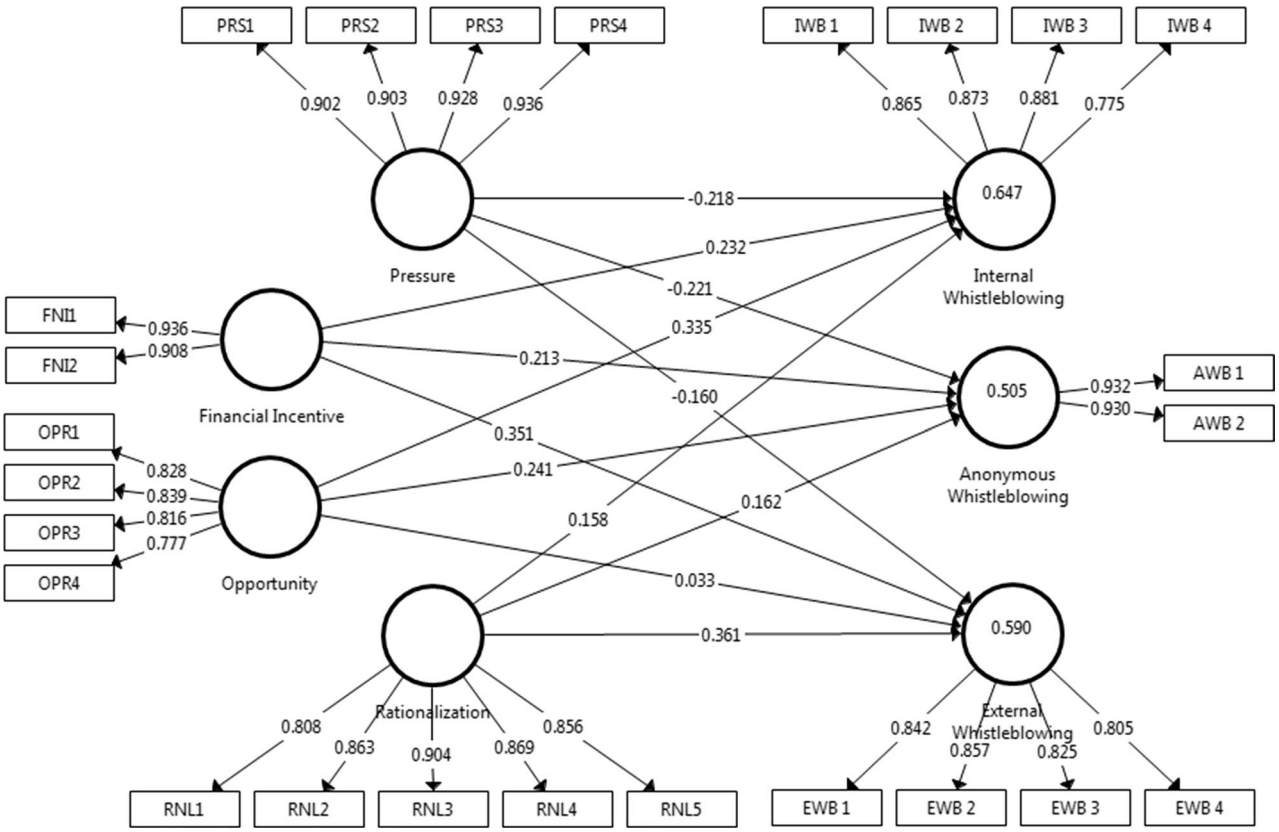

Fig. 2 Evaluation of the measurement model

Table 5 Structural model results

Constructs	R^2	Adj. R^2	F^2	Q^2	VIF	SRMR	NFI	AFVIF
Pressure (PRS)	–	–	0.019–0.041	–	3.295	–	–	–
Financial incentive (FNI)	–	–	0.059–0.193	–	1.559	–	–	–
Opportunity (OPR)	–	–	0.001–0.129	–	2.480	–	–	–
Rationalization (RNL)	–	–	0.020–0.121	–	2.636	–	–	–
Internal whistleblowing (IWB)	0.590	0.583	–	0.594	–	0.071	0.874	2.496
Anonymous whistleblowing (AWB)	0.505	0.496	–	0.509	–	0.071	0.874	2.496
External whistleblowing (EWB)	0.647	0.640	–	0.649	–	0.071	0.874	2.496

Table 6 Relationships between variables (direct effect)

Structural path	Coefficient (β)	SD	p values	95% BCa CI	Conclusion
PRS → IWB	− 0.218	0.095	0.011*	(− 0.068, 0.002)**	H1a supported
PRS → AWB	− 0.221	0.099	0.013*	(− 0.058, 0.005)**	H1b supported
PRS → EWB	− 0.160	0.076	0.018*	(− 0.033, 0.001)**	H1c supported
FNI → IWB	0.232	0.062	0.000**	(0.333, 0.004)**	H2a supported
FNI → AWB	0.213	0.076	0.002**	(0.333, 0.001)**	H2b supported
FNI → EWB	0.351	0.069	0.000**	(0.459, 0.000)**	H2c supported
OPR → IWB	0.335	0.080	0.000**	(0.457, 0.006)**	H3a supported
OPR → AWB	0.241	0.085	0.002**	(0.378, 0.007)**	H3b supported
OPR → EWB	0.033	0.057	0.284	(0.090, 0.044)*	H3c supported
RNL → IWB	0.158	0.078	0.022*	(0.284, 0.003)**	H4a supported
RNL → AWB	0.162	0.093	0.040*	(0.329, 0.004)**	H4b supported
RNL → EWB	0.361	0.085	0.000**	(0.494, 0.001)**	H4c supported

**, *statistically significant at the 1 and 5% levels, respectively

determination above 0.25 can be considered high in some disciplines, but values between 0.50 and 0.75 are considered good (Hair et al. 2017; Field 2016).

In Table 5, it can be seen that the values of R^2 and adjusted R^2 produced are good, ranging from 0.496 to 0.647. In addition, the effect size value generated by each predictor variable in the model ranges from 0.001 to 0.193, which means it is included in the small-to-medium category. The Q^2 predictive relevance value generated excellent endogenous variables, i.e., >0, which means that the model has predictive relevance. The value of goodness of fit generated through the standardized root-mean-squared residual (SRMR) is equal to $0.071 < 1.00$, which means that our model fits the empirical data (Henseler et al. 2017; Latan and Noonan 2017). Hair et al. (2017, p. 193) states that, when using PLS-PM, it is important to recognize that the term 'fit' has a different meaning than when using CB-SEM. Thus, the threshold is likely too low for PLS-PM.

Hypotheses Testing

We tested our hypotheses with a view toward the coefficient parameter and the significant value generated from the 95% bias-corrected confidence intervals of each independent variable. As listed in Table 6, all path coefficients provide significant value (at the $p=0.05$ level). Based on the analysis in Table 6, pressure has a significant negative effect on whistleblowing intention. From the analysis results obtained, the coefficient value (β) of the relationship PRS → IWB is − 0.218, PRS → AWB is − 0.221 and PRS → EWB is − 0.160 with a p value <0.01. This means that hypothesis 1 (H1) is supported. Furthermore, financial incentive and opportunity have a significant positive effect on whistleblowing intention. From the analysis results obtained, the coefficient value (β) of the relationship FNI → IWB is 0.232, FNI → AWB is 0.213, FNI → EWB is 0.351, OPR → IWB is 0.335, OPR → AWB is 0.241 and OPR → EWB is 0.033 with a p value <0.05. This means that hypotheses 2 and 3 (H2 and H3) are also supported.

Finally, from Table 6, it can be seen that rationalization also has a positive effect on whistleblowing intention, with a value of path coefficients (β) in the relationship RNL → IWB of 0.158, RNL → AWB of 0.162 and RNL → EWB of 0.361, significant at 0.01. This means that hypothesis 4 (H4) is supported.

Importance-Performance Map Analysis (IPMA)

We ran IPMA to enrich our findings. IPMA is one of the most well-known PLS-PM techniques in some disciplines, including business ethics research (Latan et al. 2017; Streukens et al. 2017). This method provides a comparison between the importance-performance of each predecessor variable in the model and offers solutions for future implications. Specifically, variables with above average importance and below average performance are of highest interest in achieving improvement. In this case, the priority sequence of variables will be determined from the values with the highest importance and lowest performance (quadrant II). However, IPMA in PLS-PM is conducted based on the targeting of selected variables and has advantages in testing complex models with latent variables. The IPMA results are listed in Table 7.

Results from the IPMA in Table 7 show that PRS has a relatively low performance of 37.04 compared with other constructs in the model. This means that the performance of PRS is slightly below average. On the other hand, with a total effect of 0.218, the importance of this construct is quite high. Accordingly, an increase in one PRS performance unit from 37.04 to 38.04 will improve IWB, AWB and EWB performance by 0.218, 0.221 and 0.160 points, respectively. Therefore, if audit firms want to improve IWB, AWB and

Table 7 The IPMA for construct whistleblowing intentions

Constructs	IWB		AWB		EWB	
	Importance	Performance	Importance	Performance	Importance	Performance
PRS	− 0.218	37.04	− 0.221	37.04	− 0.160	37.04
FNI	0.232	68.49	0.213	68.49	0.351	68.49
OPR	0.335	63.50	0.241	63.50	0.033	63.50
RNL	0.158	67.77	0.162	67.77	0.361	67.77

EWB, the first thing that requires attention is to reduce the pressure faced by the auditor. Streukens et al. (2017) labeled this quadrant 'concentrate here,' indicating key elements for improvement, as these drivers are considered important by respondents, but their perceived level of performance leaves something to be desired. Furthermore, aspects related to OPR, RNL and FNI are characterized by both high importance and high performance (quadrant I). These drivers represent opportunities for gaining or sustaining a superior level in the target construct. Thereby, these variables are the second, third and fourth priorities for future improvement.

Additional Tests

We ensured the robustness of the main model results by performing additional analyses. First, we tested for endogeneity bias. We used the Heckman test to obtain propensity scores in assessing endogeneity with the help of the Stata program. We found that the significance obtained from both models remained the same, which indicates that endogeneity bias is not a potential threat to our results. Second, we examined the effect of extraneous variables such as gender (recorded as 1 = male, 0 = female), age (measured in four categories: 25–35, 36–45, 46–55 and > 55 years old) and experience (1 = experienced, 0 = not experienced). According to Bernerth and Aguinis (2016), the decision to include control variables must be accompanied by logical reasoning and theoretical support. Given the lack of empirical and theoretical precedent in this work, we tested extraneous variables to ensure the validity of these variables as controls. We conducted multigroup analysis (PLS-MGA) by considering measurement invariance testing. From the PLS-MGA results, we conclude that there is no significant difference ($p > 0.05$) among the confounding variables. In line with this, Kock (2011) states that it does not matter if the control variable is insignificant, as it will not affect the robustness of the main model.

Discussion

Our overall results address some of the empirical gaps in research into the whistleblowing triangle, providing concrete evidence from Indonesia. Our findings also add some new evidence to the current whistleblowing literature. From a conceptual standpoint, we found a significant relationship between the whistleblowing triangle components and whistleblowing intention in professional accountants. Specifically, we find that pressure has a negative effect on the intention to report misconduct. The higher the pressure, the greater the chance that someone will choose to be silent in reporting misconduct. These findings simultaneously corroborate the evidence shown by MacGregor and Stuebs (2014a), where in high-pressure conditions, individuals are reluctant to blow the whistle. However, if the pressure is less, whistleblowers will select an anonymous reporting channel over internal and external reporting channels. The pressures that arise as a threat to the life and career of an auditor will be considered before making ethical decisions. When the auditor decides to blow the whistle under high-pressure conditions, they have considered a trade-off between risk and benefits. In addition, based on IPMA, pressure must be a top priority of audit firms and be considered to improve whistleblowing intention in public accountants.

Furthermore, we found a significant positive relationship between financial incentive and whistleblowing intention in professional accountants. Financial incentives can be understood as compensation provided by internal or external parties when an auditor reports fraud found in the assignment or audit of financial statements. An increase in whistleblowing claims can be seen as an effect of the financial incentives offered by the IRS and SEC. This means that financial incentives are one of the factors driving the auditor to blow the whistle. Based on our IPMA results, we note that financial incentives are the most important factor for auditors in reporting misconduct. This assertion is supported by its high importance-performance values and inclusion in quadrant I. Therefore, whistleblowers maybe more influenced by financial benefits than adhering to ethical standards, so it is not surprising that misconduct may be allowed to grow until there is a large loss (Brown et al. 2016; Berger et al. 2017). Several previous studies corroborate this (Andon et al. 2016; Berger et al. 2017; Brown et al. 2016; Guthrie and Taylor 2017; Rose et al. 2016; Stikeleather 2016), where financial incentives increase whistleblowing intention in public accountants.

In addition, we found that both opportunity and rationalization have a significant positive effect on the

whistleblowing intention. Opportunities are conditions or situations that enable the auditor to report misconduct without obstacle. Opportunities always relate to the availability of supportive resources within the organization, such as reporting channels, organizational support, norms and ethical values within the organization. Organizations should also reduce auditors' fear of blowing the whistle. We find that where opportunities are available, auditors prefer internal and anonymous reporting channels to report misconduct. Several previous studies have also indicated this (Brown et al. 2016; Latan et al. 2016; Park and Blenkinsopp 2009), where opportunity increases whistleblowing intention in public accountants. In addition, based on IPMA, opportunity should be the second priority of the audit firms, which must be considered to improve whistleblowing intention in public accountants.

Finally, we also found that rationalization plays a key role in an auditor's decision to blow the whistle. Rationalization is a cognitive process and a justification that one's current actions do not violate existing ethical standards. Professional accountants always work under professional codes of ethics, where standards require them to disclose all material misstatements and fraud found in the audit of financial statements. Therefore, auditors are often confronted with an ethical dilemma, where they must report wrongdoing, but without any protection from their organizations. Thus, the rationalization process becomes one of an auditor's main considerations in blowing the whistle. Rationalization favors blowing the whistle when the auditor believes that the action is being taken in accordance with ethical standards and facts. Several previous studies (Brown et al. 2016; Dellaportas 2013; Smaili and Arroyo 2017) have indicated that rationalization increases whistleblowing in public accountants.

Conclusions, Implications for Theory and Practice and Limitations

Our study aims to empirically test the effect of the components of the whistleblowing triangle concept on whistleblowing intention in public accountants in Indonesia. In general, this study was motivated by a lack of insight and empirical evidence on the whistleblowing triangle, where these relationships have not been explored thoroughly, although important contributions in this field should be pointed out in terms of the action to report wrongdoing (such as Smaili and Arroyo 2017). The main contributions of this work are as follows: First, we found that pressure has a significant negative effect on whistleblowing intention. More precisely, high pressure can make the auditor choose to be silent and not reveal wrongdoing (MacGregor and Stuebs 2014a; Brown et al. 2016). Second, we found a strong relationship between financial incentive and whistleblowing intention. Financial incentives are the most important factors in ethical decisions of auditors (Andon et al. 2016; Berger et al. 2017; Rose et al. 2016; Stikeleather 2016). Third, we found a significant positive relationship between opportunity and whistleblowing intention. Available resources will make the auditors unafraid to report wrongdoing. Finally, we found that rationalization plays a key role in an auditor's decision to blow the whistle.

Our research provides theoretical and practical implications in the following ways. In terms of theoretical implications, our study provides new insights into the whistleblowing literature (Smaili and Arroyo 2017; Brown et al. 2016; Culiberg and Mihelič 2017; Lee and Xiao 2018), mainly because this can be considered the first empirical test of the concept of the whistleblowing triangle. Factors such as pressure, financial incentive, opportunity and rationalization can each provide an important impetus for an auditor considering blowing the whistle. The results of this study provide empirical evidence on the relationship between variables in the whistleblowing triangle. In terms of practical implications, our research results both extend the previous literature on the whistleblowing triangle (Brown et al. 2016; Smaili and Arroyo 2017) and may provide insight for professional accountants about the importance of reporting fraudulent behavior without fear of retaliation. Professional accountants should be independent in facts and appearances, regardless whether or not there is legal protection governing whistleblowers. For audit firms, the results of this study suggest that it is important to provide different types of reporting channels, support from top management, internal incentives, and ethical norms in the workplace. While there are forces working against ethical conduct, the duties and responsibilities of an auditor are very important and have broad implications for stakeholders and wider society.

This study has limitations that must be considered. First, this study does not consider other factors that may be additional components in the whistleblowing triangle model. As stated by Boyle et al. (2015) and Wolfe and Hermanson (2004), factors such as capability and risk may influence an auditor's decision to blow the whistle. Second, we only consider testing the influence of pressure from a negative point of view, without considering the positive side of this variable (Smaili and Arroyo 2017). Different results may be obtained when considering both positive and negative aspects of pressure, including social motivation and sense of duty. In addition, this study only considers financial incentives, without examining moral and social incentives (Brown et al. 2016). Finally, this study only tests the rationalization factor in a single concept, without considering the cognitive and psychological dimensions of the variable (Murphy and Dacin 2011; Murphy and Free 2016).

The results of this study provide a direction for future research as follows: First, future research needs to consider

a variety of factors, such as capability and risk, as an alternative model of whistleblowing (Boyle et al. 2015; Free 2015; Wolfe and Hermanson 2004). This is a call for research to provide additional empirical evidence of the notion of the whistleblowing triangle. Second, future research needs to consider examining the variables of incentive and rationalization in a single second-order construct in influencing whistleblowing intention. We would point out that validation for these construct dimensions is also required. Third, replication studies in other countries are needed to strengthen our findings. We feel that it is necessary to conduct a study using qualitative approaches such as focus group discussion (Dellaportas 2013) or fuzzy-set qualitative comparative analysis (Ragin 2009), which may lead to new avenues for future research. Finally, we suggest exploring the implications of the proposed framework for dealing with the challenges and opportunities of business ethics education (Dellaportas et al. 2011).

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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