

# **Whistleblowing Intentions among Public Accountants in Indonesia: Testing for the Moderation Effects**

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6 **Whistleblowing Intentions among Public Accountants in**  
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8 **Indonesia: Testing for the Moderation Effects**  
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12 **Abstract**

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14 Our study contributes by providing new insights into the relationship between the  
15 individual levels of the antecedents and how the intention of whistleblowing is  
16 moderated by perceived organizational support (POS), team norms (TNs) and  
17 perceived moral intensity (PMI). In this paper, we argue that the intention of both  
18 internal and external whistleblowing depends on the individual-level antecedents  
19 (attitudes toward whistleblowing [ATW], perceived behavioral control [PBC],  
20 independence commitment [IC], personal responsibility for reporting [PRR] and  
21 personal cost of reporting [PCR]) and is moderated by POS, TNs and PMI. The  
22 findings confirm our predictions. Data was collected using an online survey on 256  
23 Indonesian public accountants who worked in the audit firm affiliated with the Big 4  
24 and non-Big 4. The results support the argument that all the antecedents of individual  
25 levels can improve the auditors' intention to blow the whistle (internally and  
26 externally). The nature of the relationship is more complex than analysis by adding  
27 moderating variables using the Partial Least Squares Structural Equation Modeling  
28 (PLS-SEM) approach. We find that POS, TNs and PMI can partially improve the  
29 relationship between the individual-level antecedents and whistleblowing intentions.  
30 These findings indicate that the POS, TNs and PMI are a mechanism or that attribute  
31 is important in controlling behavior.  
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42 *Keywords:* Whistleblowing, Audit firms, Individual-level antecedents, Perceived  
43 organizational support, Team norms and Perceived moral intensity  
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5 **1. Introduction**  
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7 More recently the public was shocked by corporate scandals in which the  
8 main actor was a whistleblower.<sup>1</sup> The last case that put whistleblowing in the  
9 headlines of the news media was about telephone tapping and hacking cases  
10 involving the National Security Agency (NSA) and Edward Snowden leaked  
11 documents that were meant to be secret (Archambeault and Webber 2015). This  
12 suggests that the role of whistleblowers in detecting errors is crucial. On one hand,  
13 managers / supervisors often learn from mistakes in their company only when  
14 someone blows the whistle about the mistake (Near and Miceli 1985, 2016). On the  
15 other hand, a whistleblower may face many obstacles, suffer from the negative  
16 impact on his personal and professional life (such as increased levels of stress or loss  
17 of reputation), and run the risk of retaliation (Izraeli and Jaffe 1998; Liyanarachchi  
18 and Adler 2011; Webber and Archambeault 2015). Given the low public visibility  
19 and the high technical complexity of many illegal activities in the company, the  
20 success of the monitoring and detection of financial fraud depends largely on auditor  
21 (Chiu 2002). However, the auditor cannot be separated from ethical issues related to  
22 his work and can also observe the behavior violations of the professional code of  
23 conduct among fellow coworkers (Alleyne et al. 2016; Bedard et al. 2008).  
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38 The interest of academics on this issue was indicated by the development  
39 and testing of several models of research associated with the intention to blow the  
40 whistle on audit firms (Alleyne et al. 2016; Curtis and Taylor 2009; Robertson et al.  
41 2011; Seifert et al. 2014; Taylor and Curtis 2010, 2013; Wainberg and Perreault  
42 2016). However, the existing models do not show how the role of the organizational  
43 support / team norms and moral intensity possessed the auditor to arrive at causal  
44 explanation and assessment of responsibility for the perceived mistakes that caused  
45 the auditor's decision to blow the whistle. Organizational support will eliminate the  
46 fear of retaliation when the auditor will report wrong-doings. While the team norms  
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57 <sup>1</sup> Whistleblowing is “the disclosure by organization members (former or current) of illegal, immoral,  
58 or illegitimate practices under the control of their employers, to persons or organizations that may be  
59 able to affect action” (Near & Miceli, 1985, p. 4).  
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5 and moral intensity assist the auditor when faced with an ethical dilemma. These  
6 factors become key elements of the auditor's decision to blow the whistle. As stated  
7 by Alleyne et al. (2013), previous studies have responded and proposed a model of  
8 whistleblowing, but fail to capture all of the important factors for the context of  
9 external audit. Alleyne et al. (2013) proposed a new model for whistleblowing, but  
10 this model has not been validated empirically. Therefore, the purpose of this study  
11 was to validate the model developed by Alleyne et al. (2013) for the Indonesian  
12 context.  
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Indonesia offers an interesting phenomenon to study because it is one country in Southeast Asia that has increased corporate governance significantly in 2015, according to data from the Indonesian Institute for Corporate Directorship (IICD). That is evidenced by Indonesia recently adopting International Accounting Standards such as International Standards on Auditing (ISA) and International Financial Reporting Standards (IFRS). Besides, according to data from the Association of Certified Fraud Examiner (ACFE), in 2015, Indonesia was one of five countries in the world experiencing the largest fraud cases after South Africa, India, Nigeria and China. This indicates that Indonesia provides the right setting for testing models of whistleblowing, while previous studies have also been conducted in Barbados (Alleyne 2016; Alleyne et al. 2016), China (Liu et al. 2015; Zhang et al. 2009), South Africa (Maroun and Gowar 2013; Maroun and Solomon 2014), Turkey (Erkmen et al. 2014; Nayir and Herzig 2012), New Zealand (Liyanarachchi and Newdick 2009), Taiwan (Hwang et al. 2008), South Korea (Park and Blenkinsopp 2009), Ireland (Brennan and Kelly 2007), Australia (Cassemetis and Wortley 2013; Liyanarachchi and Adler 2011), Germany (Pittroff 2014) and U.S (MacGregor and Stuebs 2014; Robinson et al. 2012). However, research in Indonesia still leaves an empirical gap. In addition, we believe that the high cases of fraud discovered by the ACFE in Indonesia, are an indication that the auditors or public accountants in Indonesia are still reluctant to become a whistleblowers. So it is important to examine what factors are instrumental in improving the intention of whistleblowing public accountants in Indonesia.

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6 Our study contributes to the current literature in several ways. First, this is  
7 the first study to test the model of whistleblowing proposed by Alleyne et al. (2013),  
8 where there are many factors that have not been tested and included in previous  
9 studies in a single comprehensive model. Thus, this study answers the call from  
10 Alleyne et al. (2013) to test their model in external audit functions. Although Alleyne  
11 et al. (2016) tested this model on a public accountant in Barbados, the models they  
12 tested incomplete.<sup>2</sup> Second, this study reconciles evidence mixture of whistleblowing  
13 intentions for the Indonesian context, whereas previous studies provide inconsistent  
14 evidence for the relationship between variables. For example, Alleyne et al. (2016)  
15 found that intentions for whistleblowing were internally affected by attitudes and  
16 externally influenced by perceived behavioral control (PBC), while Izraeli and Jaffe  
17 (1998), Park and Blenkinsopp (2009), Buchan (2005), Carpenter and Reimers (2005)  
18 found no association. Instead, Dalton and Radtke (2013) found no association  
19 between the personal cost of reporting (PCR) with the intention of whistleblowing,  
20 while Alleyne et al. (2016) found that relationship.  
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33 Third, this study extends state-of-the art research on whistleblowing by  
34 providing evidence from Indonesia. Based on our best knowledge, this is the first  
35 study conducted in Indonesia that tests the intentions of whistleblowing on a public  
36 accountant. Because there are no empirical results available from Indonesia on  
37 whistleblowing in the context of accounting, this study provides initial evidence of  
38 the importance of individual and organizational factors in support of whistleblowing  
39 intentions on public accountants (Alleyne et al. 2013; Mesmer-Magnus and  
40 Viswesvaran 2005). Finally, it is important to conduct this study with experienced  
41 professionals such as CPAs, who experience real-life ethical dilemmas that may be  
42 different from those outside the professional organizations (Curtis and Taylor 2009).  
43 Previous studies have used students (Gao et al. 2015), internal auditors (Alleyne  
44 2016; Robinson et al. 2012; Seifert et al. 2014), managers (Nayir and Herzig 2012)  
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57 <sup>2</sup> Alleyne et al. (2016) examined the influence of individual-level antecedents to the intention of  
58 whistleblowing by using only POS as a moderating variable. But they ignore the other moderating  
59 variables such as TNs and PMI.  
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5 and employees (Cassematis and Wortley 2013; Liu et al. 2015). However, few studies  
6 have used public accountants as a sample.  
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9 The remainder of the paper is organized as follows. The next section  
10 presents the development of the hypotheses, followed by the research method  
11 employed. Next, we discuss our results. Finally, we discuss the results and provide  
12 important implications of our study as well as its limitations.  
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## 16 17 **2. Theoretical Background and Hypothesis Development**

### 18 *2.1. Whistleblowing as Pro-Social Behavior and the Mechanisms of Justice*

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20 The act of whistle-blowing can be framed as a pro-social part of the  
21 contemporary corporate governance system (Maroun and Atkins, 2014), which has  
22 synergy with mechanisms for promoting justice in organisations. From this  
23 perspective, whistleblowing is seen as a positive behavior (not selfish and altruistic)  
24 conducted without a specific purpose (such as reward or praise) and the action is in  
25 line with social norms (Brennan & Kelly, 2007; Dozier & Miceli, 1985; Seifert,  
26 Sweeney, Joireman, & Thornton, 2010). Whistleblowing and corporate governance  
27 are linked because both of them aim to promote organisational effectiveness,  
28 corporate social responsibility and employee empowerment (Callahan, Dworkin,  
29 Fort, & Schipani, 2002; Vandekerckhove, 2006). As described by Callahan et al.  
30 (2002), unifying these significant contemporary organisational trends offers an  
31 opportunity for organisations to improve their efficiency when relating to  
32 stakeholders, increase employee morale, reduce risk-related damages to reputation,  
33 and boost ethical behaviour throughout the corporate context. According to Vera-  
34 Munoz (2005), whistle-blower provisions to handle anonymous misconduct is one of  
35 the pillars that sustain the corporate governance reforms and framework adopted by  
36 modern U.S.  
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52 Whistleblowing act can be characterized as pro-social empowered  
53 behaviour driven both by voluntary and duty-related disclosures of wrongdoing. A  
54 pro-social behaviour is intended to be socially beneficial and motivated, although  
55 exceptions can be noticed, such as revenge (Seifert et al., 2010) and others  
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dysfunctions (Maroun & Atkins, 2014). In this context, theory of organizational justice has the potential to contribute to the implementation of effective whistleblowing mechanisms because research has indicated a positive relationship between its justice dimensions and pro-social behaviours (Seifert et al., 2010; Soni, Maroun, & Padia, 2015). When subordinates feel treated fairly, they will tend to have pro-social behavior against the company, thus increasing the possibility to report wrong-doings.

In some countries, including Indonesia, there are policies or regulations governing whistleblowing.<sup>3</sup> Indeed, in Indonesia the issue of whistleblowing received attention in 1998, precisely during the economic crisis. The system of corporate governance that is weak in Indonesia led to wrong-doings difficult to detect. To that end, the National Committee on Governance as the pioneer of whistleblowing in Indonesia introduced a system which can prevent violations in the Company. Every company in Indonesia currently has a whistleblowing system to support good corporate governance. Some rules were made for the protection of whistleblower in Indonesia such as Law No. 13 of 2006. However, the Whistleblower Protection Act (WPA) in Indonesia has not fully protect whistleblowers from various risks and retaliation.

In this paper, we tested the whistleblowing conceptual model developed by Alleyne et al. (2013), in which there are five factors of individuals who become antecedents / predictors for attitudes toward whistleblowing (ATW), perceived behavioral control (PBC), independence commitment (IC), personal responsibility for reporting (PRR) and personal cost of reporting (PCR), with three moderating variables, namely perceived organizational support (POS), team norms (TNs) and perceived moral intensity (PMI) that affect whistleblowing intentions both internally and externally. Furthermore, the development of hypotheses for this research will be described. First, the hypothesis of the direct relationship between the variables is

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<sup>3</sup> See Vandekerckhove (2006) for a description of the whistleblowing system in some other countries such as U.S, Australia, New Zealand, U.K, South Africa, Japan, Belgium and Germany.

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5 presented, followed by the hypothesis of the interaction between variables. Figure 1  
6 presents a conceptual model that will be tested in this study.  
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## 10 2.2. Attitudes toward Whistleblowing and Whistleblowing Intentions

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12 Ajzen (2005) stated that the attitude is the disposition to respond  
13 positively or not, either for an object, person, institution or event. The theory of  
14 planned behavior (TPB) found that attitude is strongly predictive of behavioral  
15 intentions (Ajzen 2005). Attitude will have a direct influence on the intentions of the  
16 whistleblowing to assess how favorably or unfavorably individuals blow the whistle  
17 (Alleyne et al. 2013; Izraeli and Jaffe 1998). This is also in line with the expectation  
18 theory proposed by Vroom (1964), where potential whistleblowers report (action)  
19 offense only if they hope such measures provide the expected results.<sup>4</sup> Previous  
20 research has found a significant relationship between attitudes and intentions of  
21 whistleblowing (Alleyne et al. 2016; Park and Blenkinsopp 2009; Trongmateerut and  
22 Sweeney 2013), ethical behavior (Alleyne and Phillips 2011; Bobek and Hatfield  
23 2003; Bobek et al. 2007; Buchan 2005; Carpenter and Reimers 2005; Cieslewicz  
24 2016) and sustainability reporting (Thoradeniya et al. 2015). From the above  
25 discussion, the following hypothesis can be derived:  
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37 ***H1: Attitude toward whistleblowing has a positive effect on both internal and***  
38 ***external whistleblowing intentions.***  
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## 42 2.3. Perceived Behavioral Control and Whistleblowing Intentions

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44 PBC is the individual's perception of how easy or difficult it is to  
45 perform certain behaviors depending on the resources and opportunities that exist  
46 (Ajzen 2005). For example, a public accountant would have a dilemma when he  
47 wanted to blow the whistle on colleagues or superiors as an audit partner who signed  
48 the audit report that is free from material misstatement in the financial statements  
49 misleading (Alleyne et al. 2013). However, when there are resources and  
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58 <sup>4</sup> The expectation theory by Vroom (1964) assumes that every individual believes that when he  
59 behaves in a certain way, he will obtain certain result called an expectation result (outcome  
60 expectancy). Each result has a value or appeal to a particular person.  
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5 opportunities that support it (such as support from top management or trusted  
6 channel), he may report the violation. In other words, the PBC has implications for a  
7 strong motivation toward intention, where the greater the individual's PBC, the  
8 greater the possibility or intention to perform the behavior (Ajzen 2005). Previous  
9 research has found a significant relationship between the PBC and the intentions of  
10 whistleblowing (Alleyne et al. 2016; Park and Blenkinsopp 2009), ethical behavior  
11 (Alleyne and Phillips 2011; Bobek et al. 2007; Cieslewicz 2016) and sustainability  
12 reporting (Thoradeniya et al. 2015). From the above discussion, the following  
13 hypothesis can be derived:  
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22 **H2:** *Perceived behavioral control has a positive effect on both internal and external*  
23 *whistleblowing intentions.*  
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#### 26 2.4. Independence Commitment and Whistleblowing Intentions

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28 Gendron et al. (2006) defined IC as “the extent to which the individual  
29 accountant considers auditor independence as a key attribute of the profession, and  
30 believes that regulatory standards of auditor independence (issued by the profession  
31 and/or external regulatory agencies) should be rigorously binding and enforced in the  
32 public accounting domain.” In the context of the audit, the IC is considered to be the  
33 key for objectivity and integrity, so this is an important factor in favor of  
34 whistleblowing intentions. Thus, public accountants must act and be seen as an  
35 independent in both tasks and performances. When a public accountant has a high IC  
36 and is confronted with ethical issues, he will be inclined to take action to report  
37 unethical behavior. Previous research has found a significant relationship between  
38 the independence of the commitment and intentions of whistleblowing (Alleyne  
39 2016; Taylor and Curtis, 2010), as well as between role conflict and role ambiguity  
40 (Ahmad and Taylor 2009). From the above discussion, the following hypothesis can  
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54 **H3:** *Independence commitment has a positive effect on both internal and external*  
55 *whistleblowing intentions.*  
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## 2.5. Personal Responsibility for Reporting and Whistle-blowing Intentions

Graham (1986) defined personal responsibility as “the psychological state of feeling personally responsible for responding to an issue of principle .....” (p. 39). In the auditing profession, the rights and responsibilities of professional auditors to report errors are set in a professional code of conduct and regulations (for example, ISA), so that PRR is regarded as one important component in deciding to report violations (Dalton and Radtke 2013; Lowe et al. 2015). When the whistleblowing is seen as a prosocial behavior / moral obligation in a company, PRR will influence the decision of individuals to report defiance by the moral sense of whether it is right or wrong (Alleyne et al. 2013; Miceli and Near 1984). So individuals who have a high PRR more likely to report violations (Schultz et al. 1993). Previous research has found a significant relationship between the PRR and the intention of whistleblowing (Alleyne et al. 2016; Dalton and Radtke 2013; Kaplan and Whitecotton 2001; Lowe et al. 2015; Schultz et al. 1993). From the above discussion, the following hypothesis can be derived:

**H4:** *Personal responsibility for reporting has a positive effect on both internal and external whistleblowing intentions.*

## 2.6. Personal Cost of Reporting and Whistleblowing Intentions

Dalton and Radtke (2013) stated that “PCR is the perceived harm or discomfort that could result from reporting wrongdoing.” Various studies have shown that retaliation or threat can hinder the whistleblower’s decision to report violations (Bedard et al. 2008; Liyanarachchi and Adler 2011; Miceli 2013; Rehg et al. 2008). The threat may be a rejection of raises, unfair performance appraisal, the reduction of duties, reduction in communication with colleagues / management or termination from the company. Previous research has found a significant negative relationship between PCR and the intention of whistleblowing (Alleyne et al. 2016; Kaplan and Whitecotton 2001; Schultz et al. 1993). From the above discussion, the following hypothesis can be derived:

**H5:** *Personal cost for reporting has a negative effect on both internal and external whistleblowing intentions.*

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## 2.7. Moderating Effect of Perceived Organisational Support on Individual-Level Antecedents and Whistle-blowing Intentions

According to organizational support theory (OST; (Eisenberger et al. 1986; Rhoades and Eisenberger 2002), employees develop a general perception concerning the extent to which the organization values their contributions and cares about their well-being (perceived organizational support or POS). So the POS is highly dependent on the individual attribution by assessing whether certain actions are favorable or unfavorable and in accordance with the goals and objectives of the organization (Kurtessis et al. 2015). Similarly, within audit firms, public accountants will feel comfortable in the decision to blow the whistle when there is high support from the organization (Alleyne et al. 2013). However, POS by itself may not stimulate the intention to report errors (Alleyne et al. 2016), but it could when combined with the characteristics of the individual levels of the auditor.

A public accountant may have ATW, PBC, IC and PRR to report errors / unethical behaviors that occur in the workplace, but he also needs to consider the POS available before deciding to report it. So the POS can reinforce the intention of whistleblowing, where the auditor may be more confident and have the courage to report any violations without fear / worry. In addition, the auditor should also assess the level of support expected when deciding whether to report any errors, thus reducing PCR. In other words, the POS will provide assurance that the auditors are free from the risk of retaliation. Previous research has found a significant relationship between the ATW, PBC, IC, PRR and PCR with the intention of whistleblowing moderated by POS (Alleyne et al. 2016). From the above discussion, the following hypothesis can be derived:

**H6a:** *Perceived organizational support will moderate the relationship of ATW with both internal and external whistleblowing intentions.*

**H6b:** *Perceived organizational support will moderate the relationships of PBC with both internal and external whistleblowing intentions.*

**H6c:** *Perceived organizational support will moderate the relationships of IC with both internal and external whistleblowing intentions.*

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**H6d:** *Perceived organizational support will moderate the relationships of PRR with both internal and external whistleblowing intentions.*

**H6e:** *Perceived organizational support will moderate the relationships of PCR with both internal and external whistleblowing intentions.*

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PLEASE INSERT FIGURE 1 HERE

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*2.8. Moderating Effect of Team Norms on Individual-Level Antecedents and Whistleblowing Intentions*

Feldman (1984) stated that TNs is the informal rules that groups adopt to regulate and regularize group members' behavior. Previous research has explained the close relationship between the TNs and unethical behavior (Dunn and Schweitzer 2006; Narayanan et al. 2006; Zhong et al. 2006). The extent to which an individual is involved in a particular behavior is largely dependent on the norms inherent in the group where he became a member (Alleyne et al. 2013). The concept of norms in the context of unethical behavior has received much attention from researchers, where the perceived social pressure and subjective norms are two important factors that influence ethical decision making (Ajzen 2005; Buchan 2005). Therefore, we argue that the norms in the audit team may also affect the behavior of individual members, where an auditor will report any errors that occur in both the assignment or engagement when the TNs is in line with professional standards and codes of conduct. So the TNs will strengthen the relationship between the ATW, PBC, IC, PRR and PCR with the intention of whistleblowing (Alleyne et al. 2013; Narayanan et al. 2006). From the above discussion, the following hypothesis can be derived:

**H7a:** *Team norms will moderate the relationship of ATW with both internal and external whistleblowing intentions.*

**H7b:** *Team norms will moderate the relationship of PBC with both internal and external whistleblowing intentions.*

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6 **H7c:** *Team norms will moderate the relationship of IC with both internal and*  
7 *external whistleblowing intentions.*  
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9 **H7d:** *Team norms will moderate the relationship of PRR with both internal and*  
10 *external whistleblowing intentions.*  
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12 **H7e:** *Team norms will moderate the relationship of PCR with both internal and*  
13 *external whistleblowing intentions.*  
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18 **2.9. Moderating Effect of Perceived Moral Intensity on Individual-Level Antecedents**  
19 **and Whistleblowing Intentions**  
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21 Jones (1991) stated that the individual ethical decision-making model  
22 should place emphasis on the characteristics of ethical issues. Based on the issue-  
23 contingency perspective, Jones (1991) introduced a construct called moral intensity  
24 with which the determining factor are ethical decision making and behavior. We  
25 adopt this perspective that assumes individuals more easily identify ethical issues  
26 when they have high moral intensity. Moral intensity is composed of six factors: (1)  
27 magnitude of consequences, (2) social consensus, (3) probability of effect, (4)  
28 temporal immediacy, (5) proximity and (6) concentration of effect. However,  
29 according to Curtis and Taylor (2009), only three factors are relevant in the context  
30 of the audit, which include the magnitude of consequences, probability of effect and  
31 proximity, and these three factors can affect the auditor's whistleblowing intentions  
32 (p. 198).  
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34 The first factor, magnitude of consequences, refers to the sum of harm (or  
35 benefits) done to victims (or beneficiaries) in terms of the moral act in question (Jones  
36 1991, p. 374). The magnitude of consequences includes the auditor blowing the  
37 whistle when a violation of auditing standards and professional codes of conduct only  
38 result in significant losses. The second factor, the probability of effect of the moral  
39 act in question, is a joint function of the probability that the act in question will  
40 actually take place and cause the harm (benefit) predicted (Jones 1991, p. 375). When  
41 a whistleblower is faced with the decision to blow the whistle, error usually occurs.  
42 However, the possibility that a mistake will cause harm in the future is a matter that  
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5 must be considered. Finally, the proximity of the moral issue is the feeling of  
6 nearness (social, cultural, psychological or physical) that the moral agent has for  
7 victims (beneficiaries) of the evil (beneficial) act in question (Jones 1991, p. 376).  
8 Generally, people tend to report a violation that is potentially detrimental to their  
9 group members (such as co-workers or family members), but they are less likely to  
10 report it when they personally do not know each other. Previous research has found a  
11 significant relationship between moral intensity and the intention to behave ethically  
12 (Singer 1996; Coram et al. 2008; McMahon and Harvey 2007; Valentine and  
13 Hollingworth 2012) and the intention of whistleblowing (Clements and Shawver  
14 2011; Curtis and Taylor 2009; Taylor and Curtis 2010; Shawver and Clements 2015;  
15 Shawver et al. 2015). Another study from Beu, Buckley, and Harvey (2003) showed  
16 that the moral intensity moderates the relationship between several independent  
17 variables and the intention to behave ethically. From the above discussion, the  
18 following hypothesis can be derived:  
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31 ***H8a:*** Moral intensity will moderate the relationship of ATW with both internal and  
32 external whistleblowing intentions.

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34 ***H8b:*** Moral intensity will moderate the relationship of PBC with both internal and  
35 external whistleblowing intentions.

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38 ***H8c:*** Moral intensity will moderate the relationship of IC with both internal and  
39 external whistleblowing intentions.

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42 ***H8d:*** Moral intensity will moderate the relationship of PRR with both internal and  
43 external whistleblowing intentions.

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46 ***H8e:*** Moral intensity will moderate the relationship of PCR with both internal and  
47 external whistleblowing intentions.  
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### 50 **3. Research Method**

#### 51 **3.1. Sample Selection and Data Collection**

52 Respondents in this study were public accountants who worked on the  
53 audit firm in Indonesia, that is affiliated with both the Big 4 and non-Big 4 (non-  
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5 affiliated).<sup>5</sup> We are collected data using online questionnaires by placing the item in  
6 question to measure each construct in this study on a virtual network. Web links to  
7 the questionnaire later in an email to the audit firm (headquarters) are scattered in  
8 various cities in Indonesia. Email addresses from the audit firm were obtained from  
9 the directory of the Indonesian Institute of Certified Public Accountants (IAPI) for  
10 2015. Based on that directory, 400 audit firms contacted a total of 1,000 staff  
11 auditors.<sup>6</sup> After sending the original invitation to complete the survey, the research  
12 team sent two additional reminder emails. Finally, to improve the response rate, the  
13 research team started a more personal approach by calling the targeted respondent. In  
14 addition, respondents were reassured about the confidentiality and anonymity of their  
15 responses and that their personal information would not be disclosed. Furthermore,  
16 for the purpose of testing non-response bias, as suggested by Oppenheim (2001), the  
17 length of time given to respondents to complete this survey was 2 months.

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At the end of this process, which took place between September-December 2015, we obtained 278 questionnaire responses, of which there were 22 incomplete questionnaires, so the questionnaires that were valid and could be used in this study were 256 with a 25.6% response rate. Of the 256 completed questionnaires, 35.3% came from audit firms affiliated with the Big 4, and the remaining 64.7% came from audit firms that are not affiliated (non-Big 4). Results of the t-test showed that there was no difference in the statistically significant response ( $P < 0.05$ ) between public accountants who came from the Big 4 and non-Big 4. We also used the Wilcoxon test for comparison. In addition, the statistical test results also showed that there was no significant difference between the response in the initial 10 respondents compared to the 10 late respondents <sup>7</sup>, which means there is no problem of non-

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<sup>5</sup> Audit firms (Big 4) are affiliated in Indonesia, including, among others, PriceWaterhouseCoopers with KAP Tanudiredja, Wibisana & Rekan; Deloitte with KAP Osman Bing Satrio; Ernst and Young with KAP Purwantono, Suherman & Surja; and KPMG with KAP Sidharta and Widjaja.

<sup>6</sup> The number of registered auditors certified as CPA in IAPI until June 2016 was 1628, while the number of registered audit firms was 525 (plus branches).

<sup>7</sup> We compared 10 samples beginning with 10 samples at the end to obtain more precise results. Most studies generally compare the overall sample before and after the cut-off. Differences in the distance are too close and may lead to biased analysis.

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6 response bias that would affect the systematic results (Dillman et al. 2014). We also  
7 conducted testing for common method bias (Podsakoff et al. 2003; MacKenzie and  
8 Podsakoff 2012) using a full collinearity approach (Kock 2015). The analysis showed  
9 that the value obtained  $AFVIF < 3.3$ , thus indicating no common bias method  
10 problem occurred.  
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14 We believe that the number of questionnaires was obtained by the  
15 absolute standards statistical test based on comparison with studies carried out  
16 recently, for example, studies of Cieslewicz (2016) with 93 respondents, Curtis and  
17 Taylor (2009) with 122 respondents, and Robertson et al. (2011) with 129  
18 respondents. In addition, some rules were applied to prove the adequacy of the  
19 sample size so that it did not affect the results of this study. Using Cohen (1992)  
20 rules, the minimum sample required is 114 (power = 80%, significance level of 1%,  
21  $R^2 < 0.25$  and minimum number of arrows pointing at a construct  $\leq 8$ ). In addition, by  
22 using the software G \* power, the minimum sample required for this study was 148  
23 (power = 0.80, effect size = 0.15, significance level of 1% and number of predictors  $\leq$   
24 8). So, by setting all the existing rules, the study had a sample size that is larger than  
25 the minimum size recommended.<sup>8</sup>  
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29 The summary of the respondent's demographic profile can be described  
30 as follows. Of the 256 respondents, 61.6% were male, with an average age of 35.4  
31 years. In terms of positions, 37.4% of the sample comprised senior audit staff and  
32 62.6% was junior audit staff. As for qualifications, 61.2% held a college degree,  
33 70.8% of the sample had professional qualifications, and 40.2% of the sample had  
34 completed the CPA professional qualification.  
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3.2. *Measurement of Variables*

The instrument used to measure each variable in this study consists of two  
parts.<sup>9</sup> The first part asked for the respondents' demographic information such as  
gender, age, education level, work experience, and job title. The second part

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<sup>8</sup> Although this study uses a component-based approach (PLS-SEM), the adequacy of the sample size remains a concern for researchers.

<sup>9</sup> The original copy of the questionnaire is available from the author.

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5 presented the scenarios and questions related to the variables to be studied. Given the  
6 difficulty in gaining access to the object in order to observe the real unethical  
7 behavior, a scenario approach is commonly used in research in the field of accounting  
8 and ethics (for example, Curtis and Taylor 2009; Dalton and Radtke 2013;  
9 Liyanarachchi and Adler 2011; Robertson et al. 2011; Shawver et al. 2015). This  
10 approach illustrates a specific case and respondents were asked to respond and put  
11 themselves as an actor in such situations. The scenario used in this study was adopted  
12 from the scenario used by Clements and Shawver (2011), Curtis and Taylor (2009),  
13 Kaplan and Whitecotton (2001) and Schultz et al. (1993) highlighting violations of  
14 auditing standards and the auditors' professional code of conduct.<sup>10</sup>  
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### 25 3.2.1. *Whistleblowing Intentions*

26 For the constructs of the whistleblowing intentions, both internally and  
27 externally, each item was measured using four questions and was adopted from Park  
28 and Blenkinsopp (2009). Respondents were asked about whether they would report  
29 an error or violation that occurs within the company, either internally or externally,  
30 by selecting one of the seven (7) options using Likert scale from 1 = not at all to 7 =  
31 very much. The values obtained validity and reliability of the analytical results  
32 measurement model for both the loading factors so that rho\_A is > 0.70 and the value  
33 is AVE > 0.50, thus meeting the recommended requirements (Hair et al. 2017). Park  
34 and Blenkinsopp (2009) and Alleyne et al. (2016) also obtained similar results when  
35 using this instrument. Table 1 below shows the indicators and outcome measurement  
36 model for this variable.  
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### 48 3.2.2. *Attitudes toward Whistleblowing*

49 The ATW constructs were measured using a five-item questionnaire  
50 adopted from Park and Blenkinsopp (2009). Respondents were asked about the  
51 critical consequences of reporting errors or violations occurring in the audit firm in  
52 the scenario by selecting one of the seven (7) options using a Likert scale from 1 =  
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58 <sup>10</sup> The use of scenarios is more effective to give stimuli to the auditor in making ethical decisions when  
59 faced with certain situations.  
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not very true to 7 = very true. The values obtained validity and reliability of the analytical results measurement model for both the loading factors so that rho\_A is > 0.70 and the value is AVE > 0.50, thus meeting the recommended requirements (Hair et al. 2017; Latan and Ghozali 2015). Park and Blenkinsopp (2009) and Alleyne et al. (2016) also obtained similar results when using this instrument. Table 2A below shows the indicators and outcome measurement model for this variable.

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PLEASE INSERT TABLE 1 HERE

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3.2.3. *Perceived Behavioral Control*

PBC constructs are measured using a four-item questionnaire adopted from Park and Blenkinsopp (2009). Respondents will be asked about how easy or difficult it is to report errors or violations occurring in the audit firm by selecting one of the seven (7) options using a Likert scale from 1 = not likely to 7 = very likely. The values obtained validity and reliability of the analytical results measurement model for both the loading factors so that rho\_A is > 0.70 and the value is AVE > 0.50 (Hair et al. 2017; Latan and Ghozali 2015). Park and Blenkinsopp (2009) and Alleyne et al. (2016) also obtained similar results when using this instrument. Table 2B above shows the indicators and outcome measurement model for this variable.

3.2.4. *Independence Commitment*

IC constructs were measured using a four-item questionnaire adopted from Gendron et al. (2006). Respondents were asked to reflect on their current organization and in the context of the scenario and assess the level of IC by selecting one of the seven (7) options using a Likert scale from 1 = completely disagree to 7 = completely agree. The values obtained validity and reliability of the analytical results

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measurement model for both the loading factors so that rho\_A is > 0.70 and the value is AVE > 0.50, thus meeting the recommended requirements (Hair et al. 2017; Latan and Ghozali 2015). Gendron et al. (2006) and Alleyne et al. (2016) also obtained similar results when using this instrument. Table 3A below shows the indicators and outcome measurement model for this variable.

3.2.5. *Personal Responsibility for Reporting and Personal Cost of Reporting*

PRR and PCR constructs were measured respectively by using the single item in question adopted from Schultz et al. (1993). Respondents were asked to rate their personal responsibilities (duties or obligations) in reporting violations, while the second question asked respondents to rate their personal costs (i.e., issues, risks and discomfort) as a public accountant in reporting errors that occur. Each item in question was measured using a Likert scale of 7 points, namely from 1 = very low to 7 = very high. The validity and reliability for these two variables do not need to be tested (Hair et al. 2017; Latan and Ghozali 2015). Table 3B and 3C below show the indicator for this variable.

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PLEASE INSERT TABLE 3 HERE

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3.2.6. *Perceived Organisational Support, Team Norms and Perceived Moral Intensity*

POS constructs were measured using an eight-item questionnaire adopted from Eisenberger et al. (1986) and Rhoades and Eisenberger (2002). Respondents were asked to reflect on their current organization and demonstrate how organizational support in the workplace, by selecting one of the seven (7) options using a Likert scale from 1 = completely disagree to 7 = completely agree. As for the PMI constructs measured, they were using a six-item questionnaire adopted from Clements and Shawver (2011). Respondents were asked to provide feedback on the scenarios to assess the level of moral intensity with 1 = strongly agree to 7 = strongly disagree. The values obtained validity and reliability of the analytical results

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5 measurement model for both the loading factors so that rho\_A is > 0.70 and the value  
6 is AVE > 0.50 (Hair et al. 2017; Latan and Ghozali 2015). Table 4 below shows the  
7 indicators and outcome measurement model for this variable.  
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12 PLEASE INSERT TABLE 4 HERE

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16 PLEASE INSERT TABLE 5 HERE

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25 Finally, we tested the discriminant validity for all variables in the model.  
26 Table 5 above shows the results of testing discriminant validity (divergent) using  
27 Fornell-Lacker criterion and heterotrait-monotrait ratio (HTMT). From the analysis  
28 above it can be seen that the square root of the AVE on diagonal lines is greater than  
29 the correlation between the constructs in the model, which means it can be concluded  
30 that all variables in this research model meet the discriminant validity. We also tested  
31 the discriminant validity using HTMT, and the results of the analysis in the table  
32 above show that the value of HTMT was smaller than 0.90, which means that it meets  
33 the recommended requirements (Hair et al., 2017; Latan & Ghozali, 2015).  
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### 42 3.3. Data Analysis

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Once we are sure that the adequacy of the sample size and a preliminary analysis has been fulfilled, we analyzed the data by using a Partial Least Squares-Structural Equation Modeling (PLS-SEM) approach. The main purpose of the PLS-SEM is to analyze of complex situations where data and prior information are relatively scarce (Wold, 1977, 1982).<sup>11</sup> Previous research in this area is also using PLS-SEM as an analytical tool (Buchan 2005; Cieslewicz 2016; Dalton and Radtke

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<sup>11</sup> When researchers do not know the data from the population common factor or composites, the use of PLS-SEM is a safer option (see Sarstedt, Hair, Ringle, Thiele, & Gudergan, 2016).

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5 2013; Thoradeniya et al. 2015). Because PLS-SEM is distribution-free, then some  
6 assumptions such as normality is not necessary, but still maintain the assumption of  
7 such quality of measurement model and structural model will be described in the  
8 following sections.<sup>12</sup>  
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#### 10 11 12 13 14 **4. Results**

15 We tested the hypothesis by using a PLS-SEM approach. PLS-SEM  
16 election is made on the grounds that this approach can test causal-predictive  
17 relationships between the latent variables simultaneously to support the weak theory  
18 (Joreskog and Wold 1982).<sup>13</sup> PLS-SEM enables researchers to examine the  
19 relationship with the complex variables, which is not possible using the covariance-  
20 based SEM approach or traditional regression (Hair et al., 2017; Latan & Ghozali,  
21 2015).<sup>14</sup> Testing PLS will pass through two stages, namely the measurement model  
22 and structural model. The measurement model is intended to assess the validity  
23 (convergent and discriminant) and reliability of each indicator forming latent  
24 constructs (Latan & Ghozali, 2015). Evaluation of the measurement model is already  
25 done in the previous section.<sup>15</sup> As for the evaluation of the structural model, it is  
26 intended to assess the quality of the model and examine the research hypothesis with  
27 the help of the SmartPLS 3 program (Ringle, Wende & Becker, 2015) through the  
28 process of bootstrapping (bias-corrected and accelerated), with a 5,000 resample that  
29 obtained structural model evaluation results in Table 6 below.  
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32 In Table 6, it can be seen that the internal / external whistleblowing  
33 (IWB/ EWB) is able to be explained by individual-level antecedents (e.g., ATW,  
34 PBC, IC, PRR, PCR) of 0640/0612 or 64% / 61.2%. This value indicates that the  
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50 <sup>12</sup> See Henseler, Hubona & Ray (2017) to update the guidelines for the evaluation criteria of  
51 measurement and structural models in PLS-SEM.

52 <sup>13</sup> PLS-SEM is a modeling approach is wrong if without justification proper use (Guide & Ketokivi  
53 2015).

54 <sup>14</sup> The CB-SEM approach will have problems when estimating models that are very complex. In  
55 contrast, the traditional regression approach has many limitations such that it cannot test the model  
56 simultaneously and based on the total score of the variable.

57 <sup>15</sup> Evaluation of the measurement model includes the assessment of the loading factor, average  
58 variance extracted (AVE), rho\_A, and HTMT assessment as a discriminant validity assessment,  
59 which is more superior than the Fornell-Larcker criterion.  
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5 explanatory power of the predictor variables was approaching substantial (Latan and  
6 Ghozali, 2015). The resulting effect size value of each predictor variable in the model  
7 ranged from 0.01 to 0.09, which is included in the category of small to medium. The  
8 value variance inflation factor (VIF) is generated for all the independent variables in  
9 the model  $< 3.3$ , which means that there was no collinearity trouble between the  
10 predictor variables. The  $Q^2$  predictive relevance value generated each endogenous  
11 variable as excellent i.e  $> 0$ , which means that the model has predictive relevance.  
12 This is supported by the value of goodness of fit that is generated through the  
13 standardized root mean squared residual (SRMR) that is equal to  $0.062 < 0.080$  and  
14 the normed fix index (NFI)  $0.802 > 0.80$ , which means that our model fits the  
15 empirical data.  
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27 PLEASE INSERT TABLE 6 HERE

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#### 30 31 4.1. Hypothesis Testing (Direct Effect)

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33 We tested the hypothesis (direct effect) before testing the hypothesis  
34 (interaction) with a view of the coefficient parameter and the significant value  
35 generated from the 95% bias corrected confidence intervals of each independent  
36 variable. As shown in Table 7, it can be seen that the ATW and PBC positively and  
37 significantly effected either to internal whistleblowing  $ATW \rightarrow IWB \beta = 0.283, p =$   
38  $0.003$ ;  $PCB \rightarrow IWB \beta = 0.396, p = 0.001$  and external whistleblowing  $ATW \rightarrow EWB$   
39  $\beta = 0.283, p = 0.003$ ;  $PCB \rightarrow EWB \beta = 0.290, p = 0.002$  (one-tailed), thus fully  
40 supporting the H1 and H2. These results are consistent with the TPB stating that the  
41 ATW and PBC are important predictors in influencing behavior. Public accountants  
42 who have high ATW and PBC will tend to have a high whistleblowing intention in  
43 reporting errors that occur. Furthermore, variables IC, PCR and PCR were also  
44 positive and significant for both internal whistleblowing  $IC \rightarrow IWB \beta = 0.260, p =$   
45  $0.003$ ;  $PRR \rightarrow IWB \beta = 0.268, p = 0.001$ ;  $PCR \rightarrow IWB \beta = -0.029, p = 0.001$  and  
46 external whistleblowing  $IC \rightarrow EWB \beta = 0.236, p = 0.008$ ;  $PRR \rightarrow EWB \beta = 0.384, p$   
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5 = 0.002; PCR → EWB  $\beta = -0.073$ ,  $p = 0.001$  (one-tailed)<sup>16</sup>, thus fully supporting the  
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7 H3, H4 and H5. Public accountants who have high IC and PRR tend to act in  
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9 accordance with professional standards and a code of ethics, so they will have strong  
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11 whistleblowing intentions for any violations. Conversely, if the PCR is perceived  
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13 high / low by the auditor, the whistleblowing intentions will depend on the cost /  
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15 benefit perceived. So, the lower the risk, the auditors' whistleblowing intentions will  
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17 be higher in the error reporting.

18 The results support previous studies (Alleyne et al., 2016; Park &  
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20 Blenkinsopp, 2009; Dalton & Radtke, 2013; Kaplan & Whitecotton, 2001; Lowe et  
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22 al., 2015; Schultz et al., 1993; Taylor & Curtis, 2010; Trongmateerut & Sweeney,  
23  
24 2013) and extend the generalization of the findings in different contexts. Because  
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26 Indonesia is currently has increased corporate governance significantly, supported by  
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28 the adoption of International Accounting Standards such as ISA and IFRS recently,  
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30 perhaps a direct implication on improving the intention of auditor in reporting wrong-  
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32 doings. In addition, with the support of the WPA and the availability of a trusted  
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34 channel in Indonesia, the auditor in Indonesia starting today is not reluctant to blow  
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36 the whistle. Both these factors play an important role in influencing the decision of  
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38 the auditor's report wrong-doings in the context of Indonesia.

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41 PLEASE INSERT TABLE 7 HERE

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#### 43 44 45 4.2. Hypothesis Testing (*Interaction Effect*)

46 We tested the hypothesis interactions using the orthogonalization  
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48 approach.<sup>17</sup> This approach was chosen because it produces an accurate estimate, has a  
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50 high predictive accuracy and is able to minimize problems collinearity. The results of  
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52 the analysis of interactions can be seen in Table 8 below. In Table 8, it can be seen

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55 <sup>16</sup> We tested the hypothesis by using the one-tailed test rather than the two-tailed. Testing the  
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57 hypothesis by using one-tailed is more appropriate when the hypothesis direction is clear so as to  
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59 minimize the type II error.

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62 <sup>17</sup> Besides the orthogonalization approach, there is also a product indicator and two-stage approach to  
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64 test the interaction effects.  
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5 that the hypotheses 6, 7 and 8 are supported partially, whereas POS, TNs and PMI  
6 may moderate the relationship between the individual-level antecedents and the  
7 intentions of whistleblowing.  
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16 This shows that the organizational support and norms applied in the organization play  
17 an important role in improving the auditors' ethical attitudes, and the consequence is  
18 that they have the higher intention of whistleblowing to report any errors or  
19 violations. Also, the moral intensity possessed by the auditor will assist in  
20 considering any magnitude of the consequences, the probability of future losses and  
21 the close relationship with the organization or individual in decisions or actions to  
22 blow the whistle. Organizational support will assist the auditor in the face of  
23 perceived stress and norms shaping the character of a public accountant. Finally, with  
24 the moral intensity owned, the public accountant can act with high prudence.  
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29 The results support previous studies (Alleyne et al., 2016; Alleyne et al.,  
30 2013; Clements & Shawver, 2011; Curtis & Taylor, 2009; Narayanan et al., 2006;  
31 Taylor & Curtis, 2010; Shawver & Clements, 2015). Given the social norms and  
32 moral behavior are still strong in Indonesia, with the freedom to act, it becomes a  
33 supporting factor for auditors in improving the intention to report wrong-doings  
34 without fear.  
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## 44 5. Conclusion

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46 Our study contributes by providing new insights into the relationship  
47 between the individual levels of the antecedents to the intention whistleblowing  
48 moderated by POS, TNs and PMI. We answered the call of Alleyne et al. (2013) to  
49 test their model in the context of an external audit. In this paper, we argue that the  
50 intention of the whistleblowing (both internal and external), depending on the  
51 individual-level antecedents (i.e., ATW, PBC, IC, PRR and PCR), was directly and  
52 partially moderated by POS, TNs and PMI. The findings confirm our predictions.  
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We support the argument that the individual-level antecedents can increase the public accountant's intentions of whistleblowing. We have found models of whistleblowing where there is a more comprehensive understanding of the relationship between individual-level antecedents to the intention of whistleblowing reinforced by moderating variables (e.g., POS, TN and PMI). In the practical implications, these findings provide a deep understanding of how the audit firm must be selective in choosing the audit staff that upholds professional and ethical standards of behavior and that is expected to report any errors that occur. In addition, there is a need for a training program that provides guidance to staff auditors to resolve the ethical conflict and improve the professional attitude, IC and PRR. Audit firms also need to implement appropriate strategies to improve the auditors' whistleblowing intentions and reduce the fear of reprisal (e.g., by holding a whistleblower hotline or reporting anonymity). Finally, senior management within the audit firm needs to implement positive norms, in accordance with professional ethics, so that the audit staff can have responsibility for the company in reporting errors.

There are several limitations to this study that should be noted. First, some of the variables in this study were measured using a single item. This may reduce the content validity of the construct being measured. Secondly, interaction testing was only partially carried out, without examining the simultaneous effects of the three variables moderator.<sup>18</sup> The different results may be obtained when considering it. Third, this study did not consider the effect of extraneous variables that might interfere with the results of this study (such as age, gender or total tenure). Finally, this study only tested the whistleblowing intentions without testing the actual behavior.

Subsequent research could look into the relationship between the individual-level antecedents and the intentions of whistleblowing mediated by several variables such as trust in the supervisor /organization (Seifert et al. 2014), perceived benefit /seriousness (Dalton and Radtke 2013) or organizational culture (Kaptein

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<sup>18</sup> It aims to reduce the complexity of the model and multicollinearity problems that may arise. This is also in line with the proposition put forward by Alleyne et al. (2013).

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6 2011). Furthermore, a comparative study to examine the influence of extraneous  
7 variables is also needed (Erkmen et al. 2014). Replication studies on the other  
8 subjects and organizations will also allow access to generalize the findings of this  
9 study. Overall, the researchers feel that it is necessary to replicate this study using a  
10 qualitative approach / fsQCA (Henik 2015), which might provide new avenues for  
11 future studies in this research area.  
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17  
18 **Conflict of Interest:**

19 We aware of the contents and consent to the use of our names as an author of  
20 manuscript entitled:  
21

22 “Whistleblowing Intentions among Public Accountants in Indonesia: Testing for the  
23 Moderation Effects”  
24

25 The authors declare that they have no conflict of interest.  
26

27 That is to be considered for publication in the *Journal of Business Ethics*.  
28  
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32  
33 **Funding:**

34 The author(s) received no financial support for the research, authorship, and/or  
35 publication of this article.  
36  
37  
38  
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40  
41 **Ethical approval:**

42 This article does not contain any studies with human participants or animals  
43 performed by any of the authors.  
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45 For this type of study formal consent is not required.  
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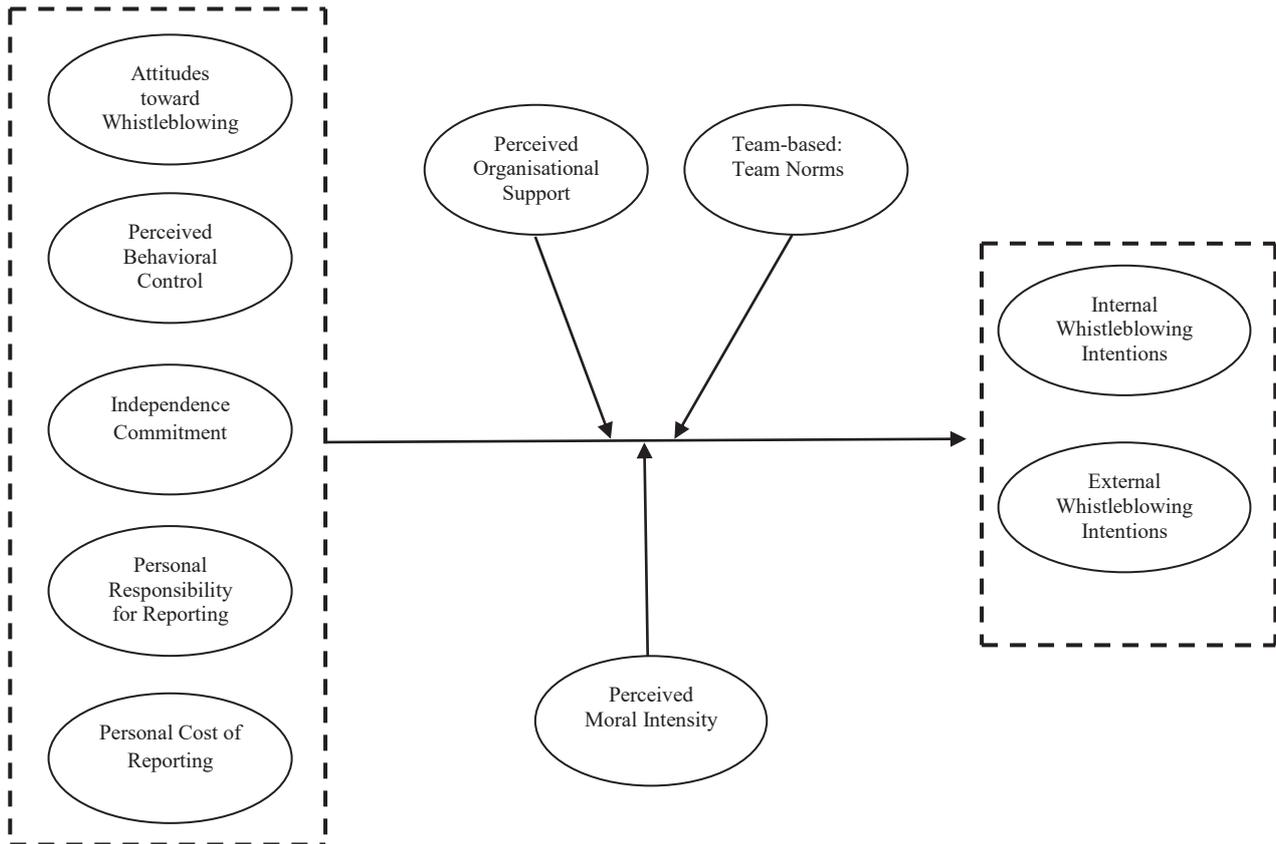
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**Figure 1. Conceptual model of whistleblowing intentions among public accountants.**

**Table 1**  
**Construct Indicators and Measurement Model of Whistleblowing Intentions**

<b>Indicators/Items</b>	<b>Code</b>	<b>FL<sup>a</sup></b>	<b>AVE</b>	<b>rho_A</b>
Internal whistleblowing (IWB)				
Report it to the appropriate persons within the firm	IWB1	0.856		
Use the reporting channels inside of the firm	IWB2	0.853	0.703	0.868
Let upper-level management know about it	IWB3	0.869		
Tell my supervisor about it	IWB4	0.771		
External whistleblowing (EWB)				
Report it to the appropriate authorities outside of the firm	EWB1	0.886		
Use the reporting channels outside of the firm	EWB2	0.837	0.682	0.856
Provide information to outside agencies	EWB3	0.785		
Inform the public about it	EWB4	0.792		

**Table 2**  
**Construct Indicators and Measurement Model of ATW & PBC**

<b>Indicators/Items</b>	<b>Code</b>	<b>FL<sup>a</sup></b>	<b>AVE</b>	<b>rho_A</b>
A). Attitudes toward whistleblowing (ATW)				
Prevention of harm to the firm	ATW1	0.794		
Control of unethical behavior	ATW2	0.864		
Enhances public interest	ATW3	0.794	0.674	0.879
One's duty as an employee	ATW4	0.847		
Morally appropriate	ATW5	0.804		
B). Perceived behavioral control (PBC)				
The audit firm's hinders reporting (or ignoring it)	PBC1	0.770		
Difficulties to be faced in the process of reporting	PBC2	0.808		
Reporting likely to be ineffective in ending the wrongdoing	PBC3	0.781	0.580	0.761
Retaliation by the audit firm	PBC4	0.681		

<sup>a</sup>FL is factor loading

**Table 3**  
**Construct Indicators and Measurement Model of IC, PCR & PRR**

<b>Indicators/Items</b>	<b>Code</b>	<b>FL</b>	<b>AVE</b>	<b>rho_A</b>
A). Independence commitment (IC)				
I believe that independence is one of the main foundations of the accounting and auditing profession.	IC1	0.839		
I believe that the profession's independence requirements must be strictly enforced in every sphere of activity in which public accounting firms are involved.	IC2	0.884		
I think the profession would be more highly regarded if the profession's independence requirements for auditors in public practice were more rigorous.	IC3	0.872	0.744	0.885
I think that stakeholders in general (e.g. business community) would benefit if the profession's independence requirements in public practice were more rigorous.	IC4	0.854		
B). Personal responsibility for reporting (PRR)				
Personal responsibility for reporting	PRR1	–	–	–
C). Personal cost of reporting (PCR)				
Personal cost of reporting	PCR1	–	–	–

**Table 4**  
**Construct Indicators and Measurement Model of POS, TNs & PMI**

<b>Indicators/Items</b>	<b>Code</b>	<b>FL</b>	<b>AVE</b>	<b>rho_A</b>
A). Perceived Organizational Support (POS)				
My organization cares about my opinions.	POS1	0.678		
My organization really cares about my well-being.	POS2	0.752		
My organization strongly considers my goals and values.	POS3	0.834		
Help is available from my organization when I have a problem.	POS4	0.818	0.673	0.930
My organization would forgive an honest mistake on my part.	POS5	0.841		
If given the opportunity, my organization would take advantage of me.*	POS6	0.878		
My organization shows very little concern for me.*	POS7	0.874		
My organization is willing to help me if I need a special favor.	POS8	0.868		
B). Team Norms (TN)				
Team norms	TN1	–	–	–
C). Perceived Moral Intensity (PMI)				
Should not do the proposed action.	PMI1	0.758		
Approving the bad debt adjustment is wrong.	PMI2	0.859		
Approving the bad debt adjustment will cause harm.	PMI3	0.880		
Approving the bad debt adjustment will not cause any harm.	PMI4	0.888	0.700	0.920
If the CEO is a personal friend, approving the bad debt adjustment is wrong.	PMI5	0.836		
Approving the bad debt adjustment will harm very few people if any.	PMI6	0.791		

\* Items reverse-scored

**Table 5**  
**Correlations and Discriminant Validity Results**

<b>Construct</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
ATW	<i>0.821</i>	0.760	0.826	0.796	0.841	0.677	0.830	0.801	0.619	0.471
EWB	0.659*	<i>0.826</i>	0.781	0.802	0.830	0.698	0.666	0.762	0.736	0.386
IC	0.728*	0.679*	<i>0.862</i>	0.806	0.802	0.686	0.739	0.803	0.716	0.452
IWB	0.694*	0.776*	0.706*	<i>0.838</i>	0.846	0.680	0.634	0.769	0.692	0.459
PBC	0.686*	0.665*	0.738*	0.722*	<i>0.761</i>	0.683	0.668	0.794	0.715	0.597
PCR	-0.635*	-0.649*	-0.645*	-0.639*	-0.596	<i>1.000</i>	0.604	0.630	0.631	0.369
PMI	0.746*	0.590*	0.667*	0.570*	0.560*	-0.577*	<i>0.836</i>	0.771	0.555	0.404
POS	0.723*	0.678*	0.729*	0.694*	0.667*	-0.607*	0.804*	<i>0.821</i>	0.599	0.381
PRR	0.580*	0.680*	0.673*	0.647*	0.623*	-0.631*	0.531*	0.577*	<i>1.000</i>	0.301
TN	0.442*	0.360*	0.425*	0.431*	0.523*	-0.369*	0.388*	0.366*	0.301*	<i>1.000</i>

Note: \*Correlation is significant at the 0.05 level (2-tailed).

Diagonal and italicized elements are the square roots of the AVE (average variance extracted).

Below the diagonal elements are the correlations between the construct values. Above the diagonal elements are the HTMT values.

**Table 6**  
**Structural Model Results**

<b>Constructs</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>f<sup>2</sup></b>	<b>Q<sup>2</sup></b>	<b>VIF</b>	<b>SRMR</b>	<b>NFI</b>	<b>AFVIF</b>
Attitude (ATW)	–	–	0.049 – 0.032	–	2.553	–	–	–
Behavioral Control (PBC)	–	–	0.092 – 0.032	–	2.584	–	–	–
Independence Commitment (IC)	–	–	0.017 – 0.011	–	3.166	–	–	–
Personal Responsibility (PRR)	–	–	0.091 – 0.035	–	2.157	–	–	–
Personal Cost for Reporting (PCR)	–	–	0.026 – 0.042	–	2.125	–	–	–
Organizational Support (POS)	–	–	0.011 – 0.091	–	2.343	–	–	–
Team Norms (TN)	–	–	0.010 – 0.080	–	2.148	–	–	–
Moral Intensity (PMI)	–	–	0.016 – 0.092	–	2.593	–	–	–
Internal Whistleblowing (IWB)	0.647	0.640	–	0.649	–	0.062	0.802	2.815
External Whistleblowing (EWB)	0.619	0.612	–	0.621	–	0.062	0.802	2.815

**Table 7**  
**Relationships between Variables (Direct Effect)**

<b>Structural path</b>	<b>Coef (<math>\beta</math>)</b>	<b>Std. deviation</b>	<b>P-Values</b>	<b>95% BCa CI</b>	<b>Conclusion</b>
ATW → IWB	0.211	0.065	0.001**	(0.003, 0.283)**	H1 supported
ATW → EWB	0.177	0.068	0.004**	(0.003, 0.283)**	
PBC → IWB	0.290	0.067	0.000**	(0.001, 0.396)**	H2 supported
PBC → EWB	0.176	0.068	0.005**	(0.002, 0.290)**	
IC → IWB	0.138	0.071	0.026*	(0.003, 0.260)**	H3 supported
IC → EWB	0.117	0.072	0.048*	(0.008, 0.236)**	
PRR → IWB	0.162	0.062	0.004**	(0.001, 0.268)**	H4 supported
PRR → EWB	0.273	0.068	0.000**	(0.002, 0.384)**	
PCR → IWB	-0.140	0.072	0.026*	(0.001, -0.029)**	H5 supported
PCR → EWB	-0.185	0.072	0.005**	(0.001, -0.073)**	

Note: \*\*, \* statistically significant at the 1 percent and 5 percent levels, respectively.

**Table 8**  
**Relationships between Variables (Interaction Effect)**

<b>Structural path</b>	<b>Coef (<math>\beta</math>)</b>	<b>S.D</b>	<b>P-Values</b>	<b>95% BCa CI</b>	<b>Conclusion</b>
ATW x POS → IW	0.141	0.062	0.012*	(0.004, 0.271)**	H6a fully supported
ATW x POS → EWB	0.143	0.053	0.004**	(0.001, 0.288)**	
PBC x POS → IWB	0.220	0.067	0.001**	(0.001, 0.346)**	H6b partially supported
PBC x POS → EWB	0.027	0.054	0.308	(0.093, 0.072)	
IC x POS → IWB	0.077	0.057	0.090	(0.060, 0.088)	H6c partially supported
IC x POS → EWB	0.138	0.071	0.026*	(0.002, 0.236)**	
PRR x POS → IWB	0.048	0.052	0.176	(0.073, 0.086)	H6d partially supported
PRR x POS → EWB	0.258	0.060	0.000**	(0.000, 0.462)**	
PCR x POS → IWB	0.128	0.060	0.016*	(0.003, 0.232)**	H6e fully supported
PCR x POS → EWB	0.125	0.065	0.028*	(0.002, 0.254)**	
ATW x TN → IWB	0.114	0.057	0.023*	(0.004, 0.218)**	H7a partially supported
ATW x TN → EWB	0.030	0.051	0.277	(0.058, 0.098)	
PBC x TN → IWB	0.132	0.060	0.014*	(0.002, 0.261)**	H7b partially supported
PBC x TN → EWB	0.081	0.053	0.063	(0.052, 0.093)	
IC x TN → IWB	0.079	0.069	0.123	(0.097, 0.102)	H7c partially supported
IC x TN → EWB	0.117	0.070	0.046*	(0.032, 0.219)*	
PRR x TN → IWB	0.156	0.057	0.003**	(0.001, 0.327)**	H7d fully supported
PRR x TN → EWB	0.279	0.069	0.000**	(0.000, 0.413)**	
PCR x TN → IWB	0.085	0.065	0.095	(0.056, 0.103)	H7e partially supported
PCR x TN → EWB	0.184	0.071	0.005**	(0.002, 0.329)**	
ATW x PMI → IWB	0.104	0.054	0.027*	(0.012, 0.261)*	H8a fully supported
ATW x PMI → EWB	0.090	0.055	0.049*	(0.014, 0.189)*	
PBC x PMI → IWB	0.102	0.062	0.049*	(0.012, 0.196)*	H8b fully supported
PBC x PMI → EWB	0.144	0.062	0.010**	(0.001, 0.327)**	
IC x PMI → IWB	0.087	0.057	0.063	(0.053, 0.975)	H8c not supported
IC x PMI → EWB	0.054	0.056	0.165	(0.085, 0.982)	
PRR x PMI → IWB	0.016	0.053	0.383	(0.138, 0.065)	H8d partially supported
PRR x PMI → EWB	0.273	0.067	0.000**	(0.000, 0.437)**	
PCR x PMI → IWB	0.031	0.052	0.276	(0.146, 0.067)	H8e partially supported
PCR x PMI → EWB	0.105	0.060	0.041*	(0.015, 0.232)*	

Note: \*\*, \* statistically significant at the 1 percent and 5 percent levels, respectively.