Ethical Awareness, Ethical Judgment and Whistleblowing: A Moderated Mediation Analysis

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Abstract

This study aims to examine the ethical decision-making (EDM) model proposed by Schwartz (2015), where we consider the factors of non-rationality and aspects that affect ethical judgments of the auditor to arrive at the decision to blow the whistle. In this paper, we argue that the intention of whistleblowing depends on ethical awareness (EAW) and ethical judgment (EJW) as well as there is a mediation-moderation due to emotion (EMT) and perceived moral intensity (PMI) of auditors. Data was collected using an online survey of 162 external auditors who worked for an audit firm in Indonesia as well as 173 internal auditors working in manufacturing and financial services. The results of the multigroup analysis show that emotion (EMT) can mediate the relationship between EAW and EJW. This relationship becomes more complex when moderating variables using Consistent Partial Least Squares (PLSc) approach are added. We found that EMT and PMI can improve the relationship between ethical judgments of the auditor and whistleblowing intentions. These findings indicate that internal auditors are more likely to whistle the blow than external auditors; and reporting wrongdoing internally and anonymously are the preferred ways to blow the whistle in Indonesia.

Keywords: Whistleblowing, Ethical decision making, Emotion, Perceived moral intensity, Professional accountants, Responsible Business.

Introduction

The issue of whistleblowing has gained the attention of the global community and the media in recent years, partly because of the large awards offered

by the Dodd-Frank Act of 2010 and partly due to a case of fraud involving the Olympus corporation and Michael Woodford who was fired when he revealed payment irregularities (Archambeault and Webber 2015; Rao et al. 2011; MacGregor and Stuebs 2014). This indicates that a whistleblower does not only arise from inside the organization, but can also come from outside, in which case they are referred to as an external whistleblower (Maroun and Atkins 2014b; Maroun and Gowar 2013).

An internal whistleblower can observe the various violations that occur within an organization such as discrimination, corruption, cronyism or other unethical behavior. Meanwhile, an external whistleblower can observe non-compliance with the fulfillment of corporate social responsibility and the environment (Culiberg and Mihelic 2016; Vandekerckhove and Lewis 2012). Thus, the important role of a whistleblower in detecting wrong-doing at this time cannot be denied (Latan et al. 2016). However, to become a wistleblower is no easy task , because one must consider the positive and negative impacts caused, and also involves the complicated process of ethical decision making (EDM) (Ponemon 1994; Shawver et al. 2015; Webber and Archambeault 2015; O'Sullivan and Ngau 2014). EDM can be understood as deciding or judging whether the action or decision is ethical (Lehnert, et al. 2015). Given that the internal control system is designed to minimize risks such as financial fraud, it will rely heavily on moral reasoning which is conducted by auditors (both internal and external). However, an auditor is often faced with ethical issues that pit ethics professional codes against ethical decisions.[1]

The critical reviews study conducted by Culiberg and Mihelic (2016) and Vandekerckhove and Lewis (2012) showed that there is still an empirical gap in this area that requires further testing. For example, most previous studies have focused too much on internal whistleblowers (such as employees, managers, internal auditors and management accountants), and ignores outside whistleblowers (Latan et al. 2016; Alleyne et al. 2016; Miceli et al. 2014).[2] In this context, subjects such as how to

1 Jubb (2000) gives a detailed explanation of the roles of auditors as whistleblowers.

2 Miceli et al. (2014) provide a detailed distinction between internal and external whistleblowers. In this paper, we use the term external whistleblower compared to the "bell-ringers" proposed by them to be more familiar.

protect external whistleblowers (Maroun and Gowar 2013) and how they are perceived, need to be further addressed (Maroun and Atkins 2014b, 2014a). At the same time, the body of literature currently offers little insight into how a person reacts to wrong-doings to arrive at the decision to blow the whistle. This relates to the ethical decision-making (EDM) model proposed by Rest (1986), where there are four stages that must be passed, namely awareness, judgment, intent and actual behavior.

As stated by Culiberg and Mihelic (2016), most of the existing empirical research related to whistleblowing has examined the relationship between judgment and intent (Zhang et al. 2009; Chiu 2003, 2002; Liyanarachchi and Newdick 2009) and supports it fully. However, there are no studies that extend this testing to other stages, such as considering the influence of ethical awarnees on ethical judgment. In addition, some studies also show that there are other factors that can affect this process, such as moral intensity (Jones 1991) and emotion (Henik 2008, 2015; Hollings 2013). Schwartz (2015) showed an EDM model of integration, combining the factors of rationality and non-rationality. This model assumes that ethical behavior depends on people who face ethical biases (related to mood or moral intensity), and the environmental situation at the time. Jones (1991) defines moral intensity as a measure of moral imperatives related problems in certain situations.

Perceived moral intensity will help auditors when faced with an ethical dilemma, while emotions are feelings that arise (such as anger or fear) when encountering wrong-doing, and influence the auditor's decision to blow the whistle (Jones 1991; Henik 2008, 2015; Latan et al. 2016). Both of these factors play an important role and are a key element in the EDM model of whistleblowing. Therefore, the purpose of this study was to extend the EDM model of testing for whistleblowing by considering the role of two whistleblower groups (inside and outside) in the Indonesian context.

Indonesia provides the proper setting to test this model because it offers an interesting phenomenon to study. For example, according to a report from global fraud study conducted by the Association of Certified Fraud Examiners (ACFE) in 2016, Southeast Asia was is first position for cases of fraud, and Indonesia is one of

five countries in the world experiencing higher levels of fraud after South Africa, India, Nigeria, and China. This is an indication that auditors in Indonesia (internal and external) are still reluctant to become whistleblowers (Latan et al. 2016). As stated by Jubb (2000), internal or external auditors are often faced with an ethical dilemma when wanting to reveal errors in the workplace, and therefore they have conflicts of loyalty and professionalism. Hence the decision to blow the whistle is complicated. However, research in Southeast Asia and Indonesia is rare and there is still an empirical gap (Culiberg and Mihelic 2016; Latan et al. 2016). Thus, it is important to examine what factors are instrumental to the auditor's decision to blow the whistle.

Our study contributes to the current literature in several ways. Firstly, this is the first study to extend the testing EDM model to whistleblowing, where there are many factors and relationships between variables that have not been tested in previous research.[3] Thus, this study answers the call research of Culiberg and Mihelic (2016) to extend the testing of these models in the context of accounting and ethics. Although some previous studies have attempted to test this model (Zhang et al. 2009; Chiu 2003; Arnold et al. 2013; Yu 2015), they can be developed further. Second, this is the first study to compare two groups of whistleblowers - internal and external auditors - which is helpful in explaining which group is more prone to blowing the whistle. Until now, no previous empirical studies have considered testing the two whistleblower groups together in a single model. Although Shawver et al. (2015) used professional accountants as samples (including internal and external auditors) in testing the EDM model for whistleblowing, they did not test samples separately.[4]

Third, this study extends state-of-the art research on whistleblowing by providing evidence from Indonesia. Based on our best knowledge, no study conducted in Indonesia has tested EDM models of decisions to blow the whistle. As there are no empirical results available from Indonesia on whistleblowing in the

3 This study provides empirical evidence of EDM theoretical models developed by Schwartz (2015). Although, not all of the variables considered, this provides sufficient preliminary evidence.

4 Shawver et al. (2015) combine the two groups into a single dataset. This makes the results of the analysis become inaccurate and biased.

context of accounting, this study provides initial evidence of the importance of individual and non-rationality factors in favor of EDM model proposed by Schwartz (2015) which have been the focus of research lately. Finally, it is important to conduct this study with experienced professionals such as auditors, who experience real-life ethical dilemmas that may be different from those outside professional organizations (e.g, employees, consultants, customers, shareholders, etc). However, few studies use the auditor as a sample (Curtis and Taylor 2009; Latan et al. 2016; Culiberg and Mihelic 2016; Alleyne et al. 2013).

The remainder of the paper is organised as follows. The next section presents the development of the hypotheses, followed by the research method employed. Next, we discuss our results. Finally, we futher analyse our results and provide important implications of our study as well as its limitations.

Literature Review and Hypothesis Development

The Ethical Decision-Making Model (EDM)

EDM is one of the issues to attrach the attention of researchers in the field of business ethics, but also in other disciplines such as marketing, moral psychology, organizational behavior, philosophy, and social economics. The extent of illegal and unethical behavior that occurs in organizations and society in general, has motivated researchers to develop a EDM model on an ongoing basis. The main assumption among all bodies of knowledge in the literature on EDM is a rationality-based process. One of the most widely cited and tested EDM model is proposed by Rest (1986) which consists of four components, namely awareness, judgment, intent and actual behavior. Until now, there have been several theoretical models of EDM that have been proposed include a model of the contingency by Ferrell and Gresham (1985), a situational interactionist model by Trevino (1986), the general theory of ethics and its modifications (Hunt and Vitell 1986, 2006), modified rest model by Jones (1991) and EDM model integrated by Schwartz (2015). The main purpose of building these models is to explain and predict the process whereby a person makes ethical decisions and the factors underlying such decisions.

Ferrell and Gresham (1985), adopted a framework for contingency in explaining the processes of EDM that influence ethical decisions of marketers. In this model, they propose three contingency factors: individual factors (e.g, knowledge, values, attitudes and intentions), organizational factors (e.g, organizational pressures and opportunities), and environmental factors (e.g, company policies and interactions between groups) that directly affect the ethical decisions of individuals. Trevino (1986) developed a situational interactionist model by combining individual factors (such as moral development, etc.) with the situational factors to explain and predict the EDM of individuals within an organization. More specifically, the model shows that the relationship between the individual cognitive moral development and ethical behavior will be moderated by the two factors. Individual factors include the strength of the ego, field dependence, and locus of control, whereas situational factors include the immediate context of work, organizational culture, and nature of work.[5] In addition, Trevino (1986) also adopted the six stages of cognitive moral development developed by Kohlberg which becomes operative in the EDM process. Hunt and Vitell (1986) proposed a general theory of ethics that is more comprehensive in explaining the process of EDM and widely accepted in the field of marketing. According to their theory, once a person is faced with an ethical dilemma, where there are alternatives and consequences (such as the influence of cultural, environmental professional, organizational, industrial, and personal characteristics), they will make an evaluation (both deontological and teleological), before making ethical judgments. After that, the ethical judgment will directly affect the ethical intentions which in turn affect the actual behavior (Hunt and Vitell 2006). The Hunt-Vitell model also added feedback generated from the actual consequences of people behavior to make personal experience in the future.

Unlike the previous three competing models, Jones (1991) built an EDM model above Rest models. According to Jones (1991), the literature don't have a model which shows the characteristics of a moral problem itself which affect the

5 There is a similarity between the model of Trevino (1986) with the model of Ferrell and Gresham (1985), which consider individual and situational factors. The difference is the role of both, one as a predictor and the other as moderator.

EDM process, and he proposes an issues-contingent model of EDM. He combines the concept of moral intensity and organizational factors in the Rest model, which is a new paradigm in EDM models. In addition, he asserted that individuals who have a superior position in the organization, as a routine more often faced ethical issues in decision making, and vice versa. Thus, the stronger the intensity of the ethical issues, the more likely the decision-makers are to lean towards ethical behavior. Therefore, Jones (1991) makes the proposition that moral intensity and organizational factors play a role as predictor variables that directly and separately contribute to the EDM process.

Most recently, Schwartz (2015) conducted a synthesis of all existing EDM models and previous studies that have been conducted, to propose a new model called the "EDM model integrated". This combines all theoretical and empirical models into a single comprehensive model. This study adopts the perspective of the framework proposed by Schwartz (2015), where we consider factors of non-rationality (such as emotions) as well as individual factors (such as moral intensity) as the mediating-moderation effects in the relationship between the variables that affect the decision making process auditor to blow the whistle. As stated by Schwartz (2015), EDM is a complex process that involves many variables that are interrelated (neurocognitive-affective processes) and influence each other. For example, in the EDM model described earlier, non-rationality factors were completely ignored, and for this reason the rationalist approach seems to have limitations and shortcomings, especially in conditions that are unpredictable and dynamic. We chose the non-rationality factors to be tested for the reason that they are more dominant in the process of moral judgment, in which rationality plays a secondary role after "a fact" is clear. In other words, when someone finds wrong-doing, but it is outside of the organization's ethical code of conduct, for example, the non-rationality factor will dominate the EDM process. Conversely, when the error is common and has been agreed upon, then the rationality factor that will dominate. Given the rights and duties of the auditor as a whistleblower have not been set out clearly with the law on protection, then the non-rationality of factors tend to be more important in the EDM

process to blow the whistle.[6] The EDM model proposed by Schwartz (2015), also built on the model of Rest, but with additional modification factors of rational and non-rational as intermediaries as well as individual and situational factors as moderating variables. This model has not been widely tested in comparison with previous models, especially in decision-making for whistleblowing.

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Ethical Awareness, Emotions and Ethical Judgment

Butterfield et al. (2000) define ethical awareness as consciousness owned by an individual at a certain time point when faced with ethical dilemmas that require a decision or action that may affect the interests of themselves or others in a way that may conflict with one or more of moral standards. Classical theory of EDM found ethical awareness is a strong predictor of ethical judgment (Rest 1986; Jones 1991) and mediated by non-rationality factors (affective) such as emotions (Lehnert et al. 2015; Henik 2008; Schwartz 2015). As proposed by Henik (2008) and developed further by Schwartz (2015), emotions (such as fear or anger) are also able to mediate the relationship between ethical awareness and ethical judgment for whistleblowing. Emotions generated can form prosocial or anti-social behavior which can affect a person's decision to reveal any wrong-doing. Previous research has found a significant relationship between ethical awareness and ethical judgment on marketing services (Singhapakdi et al. 1996), upper-division business students (Haines et al. 2008) and formal infrastructure (Rottig et al. 2011) and mediated by emotion (Connelly et al. 2004; Singh et al. 2016; Henik 2015). From the above discussion the following hypotheses can be derived:

H1a *Ethical awareness has a positive direct effect on ethical judgment.*

6 See Leys and Vandekerckhove (2014) for an explanation of the rights and duties of a whistleblower for some type of wrong-doings.

H1b *Ethical awareness has a positive indirect effect on ethical judgment through emotions.*

Moderating Effect of Perceived Moral Intensity on Ethical Awareness and Ethical Judgment

Jones (1991) defines moral intensity as a measure of moral imperative-related problems in certain situations. According to Jones (1991), EDM models should place emphasis on the characteristics of ethical issues themselves. Based on the issues-contingency perspective, Jones placed moral intensity as a predictor variable that affects every phase of the EDM process. Many previous studies have examined this variable in the context of business ethics (Lehnert et al. 2015; Craft 2013; O'Fallon and Butterfield 2013) and provide inconclusive results. We adopt this perspective that assumes individuals more easily identify ethical issues when they have high moral intensity. Moral intensity consists of six components (see Jones 1991), however, according to Curtis and Taylor (2009) only three factors are relevant in the context of the audit, which include the magnitude of consequences, probability of effect, and proximity, and these three factors can affect the auditor's ethical judgment to blow the whistle (p. 198).[7]

Magnitude of consequences is how much loss will result from the wrong-doings and affect the ethical judgment of the auditor. Probability of effect is the impact of that loss in the future (such as retaliation or job loss), and also how it will influence the ethical judgment of the auditor and the intention to blow the whistle. Finally, proximity is a direct influence caused by unethical behavior which harms one of the group members (such as co-workers or family members) and how it affects the ethical judgment of auditors to blow the whistle. In other words, if the impact of the one act does not directly affect the lives of people nearby, the auditor may be reluctant to disclose the error. Previous research has found a significant relationship between moral intensity and ethical judgments (Singer et al. 1998; Valentine and Hollingworth 2012; Yu 2015; McMahon and Harvey 2007; Leitsch 2004). Other

7 Alleyne et al. (2016) and Latan et al. (2016) have used the moral intensity as a moderating variable in research related to whistlwblowing intentions.

studies of Beu et al. (2003) and Singh et al. (2016) showed that moral intensity moderates the relationship between several independent variables to ethical judgments. From the above discussion the following hypothesis can be derived:

H2 *Moral intensity will moderate the relationship between ethical awareness and ethical judgment.*

Moderating Effect of Emotions on Ethical Judgment and Whistleblowing Intentions

By recognising that decisions can be divided into (a) rationalist-based (i.e., reason); and (b) non-rationalist based (i.e., intuition and emotion) (Schwartz, 2016), several previous studies have realized the importance of the role of emotions in influencing ethical decisions (Connelly et al. 2004; Curtis 2006). Emotions are feelings that arise (such as anger or fear) when encountering wrong-doing, and also influence the auditor's ethical judgment to arrive at the decision to blow the whistle (Henik 2008). Emotions can directly affect the ethical judgment and moral reasoning (Singh et al. 2016). For example, negative mood can be associated with lower intentions to report the unethical actions of others to a superior within the organization (Curtis, 2006). According to Schwartz (2015), emotions can also serve as a moderating variable on the relationship between ethical judgments and whistleblowing intentions. When the auditor is already making ethical judgments on specific cases, for example, feelings like anger or fear will continue to be part of a subsequent decision, whether to reveal wrong-doing through internal routes (IWB), external (EWB) or anonymous (AWB) whistleblowing. If the auditor is quite afraid of revealing errors found, because it will affect his personal and professional life in the future, then the internal and anonymous route of whistleblowing is usually selected. Conversely, when the auditors ignores the risks, because wrong-doing affects the lives of many people (for example, Edward Snowden who leaked secret documents from the NSA), he will probably choose the route of external whistleblowing. Previous research has found a significant relationship between

emotion and ethical judgments (Connelly et al. 2004; Curtis 2006) and the role of emotions as a moderator in the relationship between ethical judgments and whistleblowing intentions (Hollings 2013; Henik 2015; Schwartz 2015). From the above discussion the following hypotheses can be derived:

H3a *Emotions will moderate the relationship between ethical judgment and IWB.*
H3b *Emotions will moderate the relationship between ethical judgment and EWB.*
H3c *Emotions will moderate the relationship between ethical judgment and AWB.*

Moderating Effect of Perceived Moral Intensity on Ethical Judgment and Whistleblowing Intentions

Recent research shows that high moral intensity can affect ethical judgments of the auditor (Yu 2015) and will have a positive impact on the intention to blow the whistle (Alleyne et al. 2013). The model proposed by Jones (1991) placed moral intensity as a predictor variable in influencing every stage of the EDM process. We revise the role of the moral intensity variable by placing it as a moderating variable in line with the integrated EDM model proposed by Schwartz (2015). Ethical judgments made by individuals will be better when matched with high moral intensity and interaction, which in turn have a positive influence on the intention to report wrong-doings. In other words, the higher the perceived moral intensity of an issue, the more likely the person is to make ethical decisions, which in turn affects the intention to blow the whistle. Previous research has shown that ethical judgment has a positive influence on whislteblowing intentions (Zhang et al. 2009; Chiu 2003) and is moderated by moral intensity (Alleyne et al. 2013; Latan et al. 2016). From the above discussion the following hypotheses can be derived:

H4a *Ethical judgment has a direct positive effect on IWB.*
H4b *Ethical judgment has a direct positive effect on EWB.*
H4c *Ethical judgment has a direct positive effect on AWB.*
H5a *Moral intensity will moderate the relationship between EJW and IWB.*

H5b *Moral intensity will moderate the relationship between EJW and EWB.*

H5c *Moral intensity will moderate the relationship between EJW and AWB.*

Research Method

Sample Selection and Data Collection

The respondents in our survey are professional accountants working for an audit firm, manufacturing and financial services company listed on the Indonesia Stock Exchange (BEI). We chose companies in manufacturing and financial services, as reported by ACFE 2016, because these sectors have the most cases of cheating in Southeast Asia. We also ensure that external auditors who audited the company were used as a sample and matched with the internal auditor of the company. The data collection is done using an online platform which places the questionnaire used to collect data on the variables in this study. A weblink to the questionnaire was later in an email sent to firms. Email addresses from the audit firms were obtained from the directory of the Indonesian Institute of Certified Public Accountants (IAPI) for 2015. Email addresses of a manufacturing and financial services company were extracted from each company's website. Based on the directory and the information available, approximately 74 audit firms were contacted with 400 total respondents from external auditors. As for the company's manufacturing and financial services that were successfully contacted, about 223 companies with 560 total respondents from internal auditors. After sending a request to participate in the survey, we sent three subsequent emails as a reminder. To ensure data quality control, we checked back after the data was collected, to see if there was missing data, straight line responses or similarity of answers. We found a few cases here, and removed data in the case before further analysis. Finally, we made additional efforts to increase the response rate, by directly calling the target respondents. To convince the respondents, we conceal their identity (such as name and address of the company) and they remain anonymous. Furthermore, we determine the cut-off time for the return of the questionnaire, which is 3 months, for the purpose of testing non-response bias, as suggested by Dillman et al. (2014).

Between (July to October 2016) we obtained 179 questionnaire responses from external auditors and 194 questionnaires from internal auditors, of which 38 were incomplete, so the number of questionnaires that were valid and could be used in this study was 335 with a 34.89% response rate. Of the total questionnaires collected, 48.35% came from audit firms and the rest, respectively 36.09% and 15.56%, came from manufacturing and financial services (see Table 1 below).

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Results of the *t* test showed that there was no difference in statistical significant of responses ($p < 0.05$) between public accountants who came from the Big 4 and non-Big 4 and also for the social desirability response bias problems (Randall and Fernandes 2013). This indicates that the size of the audit firm will not affect the results of analysis and there are no problems in social desirability response bias of the respondent's own reporting of whistleblowing intentions.[8] These results also indicate that there is no problem of selection bias that causes the auditor not to take part in the survey (Randall and Fernandes 2013). In addition, the statistical test results also showed that there was no significant difference between respondents who answered in the beginning of data collection, compared with respondents who answered at the end, which means there is no problem of non-response bias that occurs systematically (Dillman et al. 2014). To ensure there is no common method bias, we use the full collinearity approach by (Kock 2015). The AVIF value obtained is less than 3.3, thus indicating that no common method bias problem occurred.

Table 1 presents the profile of respondents in this study. The 335 completed questionnaires were divided into two sub-samples: 162 external auditors; and 173 internal auditors, 63.28% were male (while 36.72% are female), with an average age of 37.2 years. In terms of positions, 42.7% of the sample comprised senior audit staff and 57.3% comprised junior audit staff. As for qualifications, 61.8%

8 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.

held a bachelor's degree and 38.2% held a master's degree and doctorate, while 87.2% of the sample had professional qualifications, with 43.9% of the sample having completed a professional qualification CPA and 43.3% having completed the Qualified Internal Auditor (QIA) and Certified Internal Auditor (CIA) exams.

The Survey Structure

The survey used to measure each of the variables in this study consists of three parts. The first section described the purpose and objectives of this research, by asking the respondent's willingness to participate in the survey. The second section asked for the respondents demographic information such as gender, age, education level, occupation, and qualifications. The third section presented scenarios and questions related to the variables to be studied. Given the difficulty in gaining access to the object in order to observe real unethical behavior, a scenario approach is commonly used in research in the field of accounting and ethics (for example, Alleyne et al. 2016; Arnold et al. 2013; Chan and Leung 2006; Curtis and Taylor 2009; Shawver et al. 2015). This approach illustrates a specific case, and the respondents are asked to respond and put themselves as an actor in such situations. The scenario used in this study was adopted from the scenario used by Bagdasarov et al. (2016), Clements and Shawver (2011), Curtis and Taylor (2009), Kaplan and Whitecotton (2001) and Schultz et al. (1993) with modifications, which highlight the numerous violations of professional ethics and wrong-doings in a company.[9]

To create a scale able to measure the intentions to whistle the blowing, we used atotal of 10 items of questions based on the internal, external and anonymous reporting routes adopted by Park et al. (2008). The survey respondents were asked about reporting routes that they use select when they find wrong-doings that occur (hypothetical scenario). The variable ethical awareness was measured by three questions were adopted from Arnold et al. (2013). Respondents will be asked about whether an action in the case scenario is ethical or unethical behavior. The variable ethical judgment for whistleblowing was measured through four items inspired by

9 The use of scenarios is more effective to give stimuli to the auditor in making ethical decisions when faced with certain situations.

Reidenbach and Robin (2013). Respondents will be asked about whether an action in the scenario is moral or not morally right, just or unjust, acceptable or unacceptable, and so on. Tables 2 and 3 below show the indicators and outcome measurement models for variables of ethical awareness, ethical judgment and intentions of whistleblowing.

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Furthermore, the moral intensity variable is measured by six questions adopted from Clements and Shawver (2011). Respondents were asked to provide feedback on the scenarios to assess the intensity level of their morals. Finally, emotional variables measured four items of questions adopted from Connelly et al. (2004). Respondents will be asked to provide feedback on the scenarios to assess the level of their emotions. The value of the loading factor, average variance extracted (AVE) and reliability derived from the analysis of the measurement model for all variables are to loading factor > 0.60, composite reliability / rho_*A* > 0.70 and AVE > 0.50, so it meets the recommended requirements (Hair et al. 2017; Henseler et al. 2018). However, there are some indicators of measurement models which will be retained, with the value of the loading factor being > 0.5. As stated by Hair et al. (2017, p. 114), the value of the loading factor shows the explained variance in a construct. So, if the value AVE is already more than 0.5, the indicator with low loading values can be kept to maintain the content validity. Table 4 below shows the indicators and outcome measurement model for moral intensity and emotional variables.

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In addition, we tested the discriminant validity or divergent validity for all latent variables in the model using the heterotrait-monotrait ratio (HTMT). As stated by Henseler et al. (2015), HTMT is a new procedure to test the discriminant validity and

is more appropriate than the Fornell-Lacker criterion. The HTMT approach has reliable performance, and overcomes bias in the estimation of parameters of the structural model. In Table 5, it can be seen that the value of HTMT was smaller than 0.90, which means that it meets the recommended rule of thumb (Hair et al. 2017; Henseler et al. 2015).

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Data Analysis

Before we analyze the overall model, we ensure that the adequacy of the sample size for estimation of the model has been fulfilled. Because the data analysis in this study uses the Consistent Partial Least Squares (PLSc) approach, then the sample needs to be large enough and not less than 100 (Latan and Ghozali 2015). The main purpose of PLSc is to mimic the covariance-based SEM approach to test or confirm previous suggestions (Dijkstra and Henseler 2015). By using PLSc, the estimator of the model will be consistent for the loading and the correlation between latent variables and allows us to access the goodness-of-fit (Dijkstra 2014). We chose PLSc with the consideration that it is more appropriate to test complex models, where the CB-SEM approach would be difficult to apply (Richter et al. 2016; Rigdon 2016). Previous research in this area already uses PLS-SEM as an analytical tool (Buchan 2005; Haines et al. 2008). In contrast to other SEM techniques, PLS does not rely on the assumption of normality (distribution-free) because it is non-parametric. However, some assumptions such as multicoloniarity and goodness of fit for the local models assessment need to be considered. Overall, the data analysis in this study will go through three stages. First, we analyze the measurement model to ensure an indicator constructs are valid and reliable using the full sample. Second, we examined multigroup analysis to compare the two sub samples for each path coefficient. Third, we examine the effect of mediation-moderation to determine the role of moral intensity and emotional variables.

Results

In this study, data analysis and hypothesis testing was conducted by using variance-based SEM. One of the techniques available today is PLS-SEM, which is the most fully developed and has become a vital tool for researchers to examine various issues of social science. PLS-SEM was developed with the main purpose of prediction and then extended to test the theory with consistent results for the factor models. We chose to use PLSc (on selection algorithms and boostrapping) considering that it will provide similar results to CB-SEM.[10] Until now, not much research has used PLSc. We use the SmartPLS 3 program (Ringle et al. 2015) to analyze these models by using PLSc.

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PLS-SEM analysis will pass through two stages, namely the measurement model and the structural model. Assessment of the measurement model is intended to test the validity (convergent and discriminant) and reliability of each indicator forming latent constructs. After we make sure that all the indicators constructs are valid and reliable, we continue the analysis to the second stage of assessing the quality of the structural model and run multigroup analysis to test the hypothesis. The results of the quality assessment for the structural model can be seen in Table 6.

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In Table 6 it can be seen that the whistleblowing intention (IWB, AWB, and EWB) can be explained by the predictor variables of 0.425–0.507. This value indicates that the ability of the predictor variables to explain the outcome variables was approaching substantial (Latan and Ghozali, 2015). The resulting effect size value of each predictor variable in the model ranged from 0.01 to 0.520, which is included in

10 Dijkstra and Henseler (2015) gives a detailed explanation related to PLSc.

the category of small to large. The value of variance inflation factor (VIF) generated for all the independent variables in the model is < 3.3, which means that there was no collinearity problem between the predictor variables. 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 that is generated through the standardized root mean squared residual (SRMR) that is equal to 0.049 < 0.080 and the normed fix index (NFI) 0.837 > 0.80, which means that our model fits the empirical data.

Multigroup Analysis (PLS-MGA)

We run multigroup analysis to compare the two sub-samples of internal whistleblower (internal auditor) and external whistleblower (external auditor) for each path coefficients using the Welch-Satterthwait test. The purpose of the analysis of PLS-MGA was to compare two groups of samples to determine statistically significant differences, in this case which group is more prone or unlikely to blow the whistle. Before running the PLS-MGA, we consider it to test the measurement invariance of composite models (MICOM) using a permutation procedure.[11] We test measurement invariance to ensure that the specific-group difference of the estimation model does not affect the results for latent variables in the whole group (Henseler et al. 2016). From the analysis it can be concluded that there is no difference variance and average values for both groups (see Table 7) which means there is no invariance problem that will affect the outcome.

****

PLEASE INSERT TABLE 7 HERE

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Based on the analysis in Table 7 it can be seen that the ethical awareness (EAW) has no effect on ethical judgment (EJW) for both internal and external group auditors. From the analysis results obtained value of coefficient (β) to the relationship EAWEJW each for both groups was 0.051 and -0.042 with 95% bias-corrected and

11 Conceptually, measurement invariance expresses the idea that the measurement properties of X in relation to the target latent trait *W*t are the same across populations.

accelerated (BCa) > 0.05. This means that the hypothesis 1a (H1a) was rejected. These results support previous studies (Chan and Leung 2006; Valentine and Fleischman 2004). EAW cannot be a direct predictor of the EJW and this is consistent with the EDM model integrated by Schwartz (2015), where there is another factor that mediates both. EAW of professional accountants in this study also found variance in their ability to respond to a case scenario. Furthermore, the value of the coefficient (β) to the relationship EAWEMT is 0.673; 0.551 and EMTEJW is 0.449; 0.390 with 95% bias-corrected and accelerated (BCa) < 0.01, respectively. This means that the hypothesis 1b (H1b) is supported. We also tested the indirect effect by using the method proposed by Cepeda et al. (2018) and obtained the same results.[12] These results support previous studies (Henik 2015; Connelly et al. 2004; Singh et al. 2016; Curtis 2006). This suggests that emotions may serve as indirect-only mediation or full mediation of the relationship between EAW and EWJ. When someone finds wrong-doing, it will affect their emotions prior to making ethical judgments. From these findings, it can be concluded that the internal auditor has EAW, EMT and EJW are better than with the external auditors.

Finally, from Table 7 can be seen that the value of the coefficient (β) to the relationship EJWIWB is 0.490; 0.374, EJWAWB is 0.453; 0.455 and EJWEWB is 0.323; 0.321 for each group of samples with 95% bias-corrected and accelerated (BCa) < 0.01, respectively. This means that the hypothesis 4 (H4a, H4b and H4c) is supported. These results support previous studies (Zhang et al. 2009; Chiu 2003; Arnold et al. 2013; Buchan 2005). As stated by Culiberg and Mihelic (2016), most of the research in this area has provided conclusive results for the relationship between EJW and whistleblowing intentions. A professional accountant who has made ethical judgments can report wrong-doing found through one of these three route options available: internal, extenal or anonymous. The results showed that the internal route is the most preferred by the internal auditor followed by an anonymous and external route. In contrast, for external auditors, the anonymous route is the most preferred, followed by internal and external. This indicates that professional accountants of both

12 Cepeda et al. (2018) proposes to use a spreadsheet to calculate the indirect effects.

groups in the cases of Indonesia chose an external route to blow the whistle as the last option. They are more likely to disclose an error discovered through internal and anonymous routes. One reason that might affect their decisions are fear of retaliation and the various risks that arise when using an external route for whistleblowing.

These findings indicate that internal auditors have a higher (more likely) intention to report any act than external auditors; and blowing the whistle internally and anonymously is useful professional accountants. Findings are aligned with the general statement that employees are not the only ones with privileged information about a company, and consequently outsiders may observe various wrongdoings (Culiberg and Mihelic 2016). However, the present study adds a more detailed suggestion that internal auditors more likely to report than external auditors. Although the literature has suggested that there is not a priori profile of whistleblowers that organizations (Henik, 2015), our findings suggest that internal auditors are more likely to blow the whistle than external ones. While the literature recognises that there are challenges in fully protecting external whistleblowiners (Maroun and Gowar 2013), our findings suggest that discussing how to fully protect internal auditors should also be a priority.

However, as discussed by Maroun and Atkins (2014a, 2014b) there is an upward trend of increasing the availability of information to stakeholders and enhancing the level of expectation that the public have on auditors, in terms of transparency and accountability, and in terms of relevance of audit reports (Maroun and Atkins 2014a, 2014b). If this was reinforced in Indonesia, our results would be different. This scenario will need to further consider the challenges in fully protecting external whistleblowers (Maroun and Gowar 2013).

Interaction Effect Analysis

We tested the hypothesis interactions using the orthogonalizing approach. This approach was chosen because it produces an accurate estimate, has a high predictive accuracy, and is able to minimize the collinearity problem. The results of the analysis of interactions are shown in Table 8.

****

PLEASE INSERT TABLE 8 HERE

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In Table 8 it can be seen that H3a, H3b, H3c and H5a, H5B, H5c are fully supported where moral intensity and emotional may moderate the relationship between EJW and whistleblowing intentions. As for the relationship EAW x PMIEJW obtained insignificant results with coefficient (β) = 0.031 and 95% bias-corrected and accelerated (BCa) = 0.140 > 0.05. This suggests that emotions or feelings of auditors themselves play an important role in improving the ethical assessment of auditors with the consequence that they have a higher whistleblowing intention to report any wrong-doing that occurs, reinforcing the discussion on non-rationalist based decision making (Schwartz, 2016). This finding can be understood by taking into account a broader discussion on how mood and emotions can influence whistleblowing (Curtis, 2006).

While the moral intensity that comes from the experience of the auditor would assist in considering any magnitude of consequences, the possibility of future losses and the proximity to the organization influence actions to blow the whistle. Emotions felt would assist the auditor in considering the various risks arising from actions taken.

From the results of this analysis we reached the same conclusion, that the internal and anonymous route is a favorite choice for professional accountants in Indonesia to reporting wrong-doing. These results support previous studies (Hollings 2013; Henik 2015; Alleyne et al. 2016; Latan et al. 2016). Given the cultural and social norms' strength in Indonesia, the freedom to act and speak out becomes a supporting factor for professional accountants in improving the intention to report wrong-doing without fear of reprisal. Nevertheless, it is important to further develop institutional mechanisms capable of fully protecting whistleblowing (Maroun and Gowar 2013).

Conclusion

This study aims to examine the EDM model integrated proposed by Schwartz (2015), where we consider the factors of individual non-rationality that affect ethical judgments of the auditor to arrive at the decision to blow the whistle. We answered the call of Culiberg and Mihelic (2016) to extend the testing of EDM models in the whistleblowing context. In this paper, we argue that the intention of whistleblowing, both internally, anonymously and externally depends on EAW and EJW as well as in mediation-moderation by emotion and perceived moral intensity.

We support the hypothesis that EAW cannot directly affect the EJW, but must go through the non-rationality of factors such as emotion. We also found that internal and anonymous whistleblowing routes were used by professional accountants in the case of Indonesia. In terms of practical implications, these findings provide a deep understanding of how the audit firm, manufacturing and financial services should be selective in choosing the audit staff who uphold professional and ethical standards of behavior. In addition, companies need to make strong efforts to implement a comprehensive ethics program including training in ethics, codes of conduct and so on, which provide guidance to staff auditors to resolve ethical conflicts and increase professional responsibility to report wrong-doing. Companies also need to apply the right strategy to enhance the auditor's whistleblowing intentions and reduce the fear of retaliation, for example by providing a whistleblowing hotline or reporting of anonymity, which is a favorite choice in this study for the Indonesian context.

Limitations and Future Research

There are several limitations to this study which need the attention of the reader. First, this study did not consider cultural factors that may affect the EDM process. Some cultural factors such as nationality, patriotism, religion, and political system, may affect the EAW and EJW of the auditor. These findings may differ in other countries. Second, this study only considers the factors of non-rationality in the EDM model integrated proposed by Schwartz (2015), without examining the factors of rationality. Different results may be obtained when considering both. Third, this

study only used two variables as mediation-moderation in the model. The study in the literature review by Lehnert et al. (2015) showed that there are still many variables (moderation and mediation) more important to be considered and tested in the EDM model. Fourth, this study did not consider the effect of extraneous variables (such as age, gender, education or total tenure) and also unobserved heterogeneity that might interfere with the results . However, several previous studies showed inconsistency in the role of extraneous variables in the EDM model (Chan and Leung 2006; Cagle and Baucus 2006; Ebrahimi et al. 2005; Shafer et al. 2001; Marques and Azevedo-Pereira 2009). In addition, the selection bias needs to be handled more carefully in the interview stage. Finally, this study only tested the whistleblowing intentions without testing actual behavior.

Further research can follow-up the testing of the EDM model integrated by Schwartz (2015) for whistleblowing by considering factors of rationality and non-rationality such as intuition, reason, and confirmation. Cultural factors also need to be considered for further study. This is a call for research to provide empirical evidence of the model. Furthermore, future research may use other moderating variables such as intrinsic religiosity, personal spirituality, moral obligation, retaliation, intelligence and other factors which have an important role in the EDM process (Liyanarachchi and Newdick 2009; Haines et al. 2008; Bloodgood et al. 2008). Replication studies on the other subject groups (for example, consumers vs shareholders) and other organizations (e.g, government and public administration) will also allow access to generalize the findings of this study. Overall, the researchers feel that it is necessary to replicate this study by using qualitative approaches such as case studies or fuzzy-set qualitative comparative analysis (Ragin 2008, 2009), taking into account unobserved heterogeneity testing (Hair et al. 2012; Schlittgen et al. 2016), which might be fruitful for new avenues for future study.[13] Until now, not many studies have used a qualitative approach to test the EDM model for whistleblowing.

13 Lehnert et al. (2015) was surprised only two studies using qualitative approach in their literature review.

Conflict of Interest:

We are aware of the contents and consent to the use of our names as authors of the manuscript entitled:

"Ethical Awareness, Ethical Judgment and Whistleblowing: A Moderated Mediation Analysis"

The authors declare that they have no conflict of interest.

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Fig 1. Conceptual model of the whistleblowing decision-making process

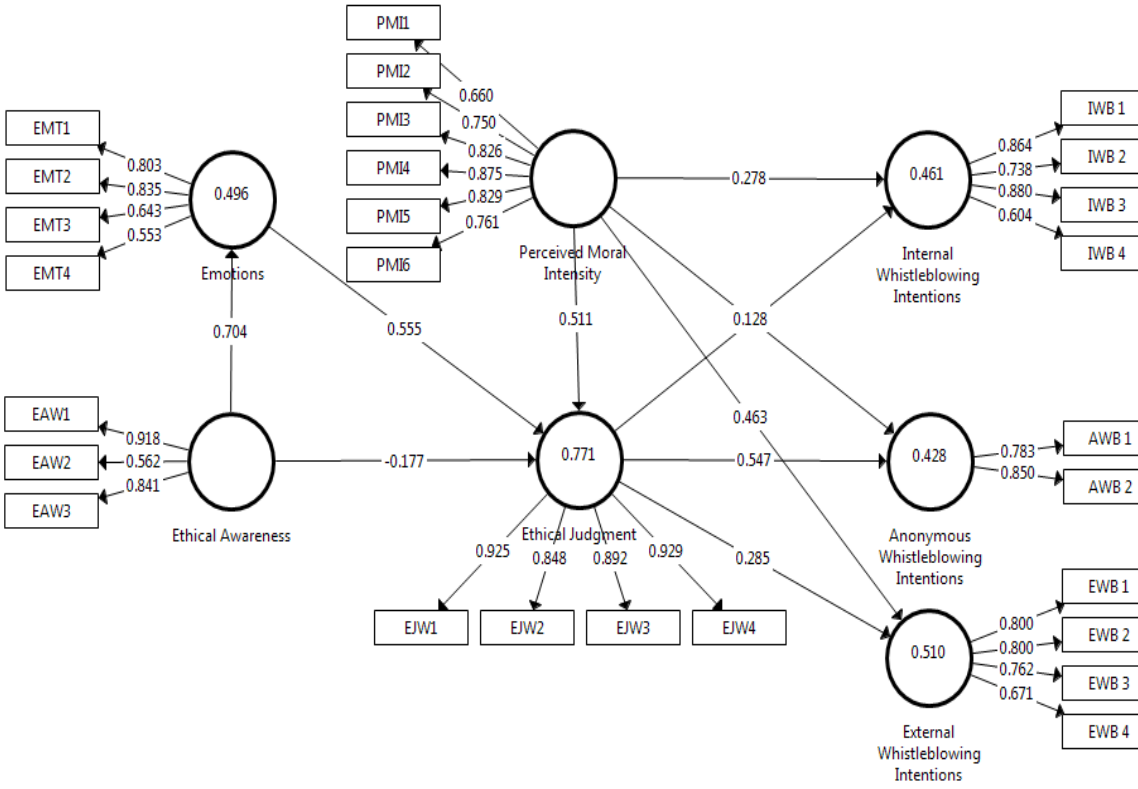

Fig 2. Evaluation of the measurement model with the full sample

Table 1

Response Rate & Profile of Respondents

Survey Result	Frequency	Percent
A. Response Rate		
External auditors, Initial = 400	179	18.64 %
	194	20.21 %
	38	3.96 %
	335	**34.89%**
Internal auditors, Initial = 560		
	212	63.28 %
Incomplete questionnaires	123	36.72 %
	335	**100%**
Response		

Rate	143	42.7 %
	192	57.3 %
	335	**100%**
B. Profile of Respondents		
Gender		
Male	207	61.8 %
Female	128	38.2 %
Total	**335**	**100%**
Organizational position		
Senior audit staff	147	43.9 %
Junior audit staff	145	43.3 %
Total	43	12.8 %
	335	**100%**
Academic qualifications (education)		
Bachelor’s degree		
Master’s degree and doctorate		
Total		
Professional qualifications		
CPA		
QIA and CIA		
Unqualifie		

d **Total**	

Table 2

Construct Indicators and Measurement Model of Whistleblowing Intentions

Indicators/Items	Code	FL[a]	AVE	rho_A
Internal Whistleblowing (IWB)	IWB1	0.864		
Report it to the appropriate persons within the firm	IWB2	0.738	0.608	0
	IWB3	0.880		.875
	IWB4	0.604		
Use the reporting channels inside of the firm				
Let upper-level management know about it				
Tell my supervisor about it				
External Whistleblowing (EWB)	EWB1	0.800		
Report it to the appropriate authorities outside of the firm	EWB2	0.800	0.578	0
	EWB3	0.762		.849
	EWB4	0.671		
Use the reporting channels outside of the firm	AWB1	0.783	0.668	
Provide information to outside agencies	AWB2	0.850		0
				.803
Inform the public about it				
Anonymous Whistleblowing (AWB)				
Reports it using an assumed name				
Reports the wrongdoing but doesn't give any information about				

himself	

[a]FL is factor loading

Table 3

Construct Indicators and Measurement Model of EAW & WBJ

Indicators/Items	Code	FL[a]	AVE	rho_A
A). Ethical Awarness (EAW)				
To what extent do you regard the action as unethical	EAW1	0.918		
	EAW2	0.562	0.622	0.863
To what extent would the "typical" [internal] auditor at your level in your firm [company] regard this action as unethical	EAW3	0.841		
To what extent would the "typical" [external] auditor at your level in your firm [company] regard this action as unethical				
B). Ethical Judgment Whistleblowing (EJW)	EJW	0.925		
Fair/Unfair	1	0.848		
Just/Unjust	EJW 2	0.892	0.809	0.945
Acceptable/Unacceptable		0.929		
Morally/Not moreally right	EJW 3			
	EJW 4			

[a]FL is factor loading

Table 4

Construct Indicators and Measurement Model of PMI & Emotions

Indicators/Items	Code	FL	AVE	rho_A
A). Perceived Moral Intensity (PMI)				
Should not do the proposed action	PMI1	0.660		
	PMI2	0.750		
	PMI3	0.826	0.619	0.911
Approving the bad debt adjustment is wrong	PMI4	0.875		
	PMI5	0.829		
Approving the bad debt adjustment will cause harm	PMI6	0.761		
	EMT1	0.803		
Approving the bad debt adjustment will not cause any harm	EMT2	0.835		
	EMT3	0.643	0.515	0.826
If the CEO is a personal friend, approving the bad debt adjustment is wrong	EMT4	0.553		
Approving the bad debt adjustment will harm very few people, if any				
B). Emotions (EMT)				
Feel that you have really accomplished something significant				
Find it				

incredible how you have had an influence in others' lives	
Think that a change will not necessarily improve your situation	
Feel like there was nothing you could do	

Table 5

Correlations and Discriminant Validity Results

Construct	Mean	S.D	1	2	3	4	5	6	7
AWB	4.73	1.32	1	0.766	0.443	0.651	0.681	0.762	0.567
EMT	4.86	1.36	0.615*	1	0.701	0.801	0.711	0.822	0.721
EAW	5.55	1.14	0.353*	0.563*	1	0.514	0.633	0.647	0.595
EJW	4.93	1.44	0.562*	0.697*	0.446*	1	0.658	0.655	0.812
EWB	5.42	1.21	0.564*	0.587*	0.549*	0.589*	1	0.826	0.697
IWBP	4.94	1.22	0.628*	0.684*	0.539*	0.591*	0.707*	1	0.628
	5	1	0.481*	0.615*	0.508*	0.754*	0.609*	0.555*	1

MI	.19	.46

Note: *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.

Table 6

Structural Model Results

Constructs	R^2	adj. R^2	f^2	Q^2	VIF	SRMR	NFI	AFVIF
Ethical Awareness (EAW)	0.771	.769	0.494	.764	2.030	0.049	0.837	2.503
Ethical Judgment (EJW)	0.461	.494	0.178	.491	2.193			
Moral Intensity (PMI)		0.458	.056 – 0.520	.453	2.845			
Emotions (EMT)			.049 – 0.472					
Internal Whistleblowing (IWB)								
Anynomous Whistleblowing (AWB)	0.428	.425	–	.423	–	0.049	0.837	2.503

External Whistleblowing (EWB)	0.510	0.507	–	0.502	–	0.049	0.837	0.503

Table 7

PLS-MGA Results (Direct Effect)

Structural Path	Internal (β)	External (β)	Differ	Welch-Satterthwait Test	ICOM	Equal Variances	Conclusion
EAW EJW	0.051[n.s]	-0.042[n.s]	0.093	0.167[n.s]	(-0.038; -0.102)[n.s]	Yes	H1a not supported
EAW EMT	0.673**	0.551**	0.121	0.059[n.s]	(-0.038; -0.191)[n.s]	Yes	H1b supported
EMT EJW	0.499**	0.390**	0.109	0.331[n.s]	(-0.191; -0.102)[n.s]	Yes	H1b supported
EJW IWB	0.490**	0.374**	0.116	0.373[n.s]	(-0.102; 0.007)[n.s]	Yes	H4a supported
EJW AWB	0.453**	0.455**	0.002	0.989[n.s]	(-0.102; -0.206)[n.s]	Yes	H4b supported
EJW EWB	0.323**	0.321**	0.003	0.983[n.s]	(-0.102; -0.084)[n.s]	Yes	H4c supported

n.s., not significant

* $p < 0.05$ (one-tailed test).

** $p < 0.01$ (one-tailed test).

Table 8

Relationships between Variables (Interaction Effect)

Structural	Coef	S.D	95%	C

path			(β)		BCa CI		conclusion
						(0.140, 0.046)	H2 not supported
						(0.015, 0.262)*	
			0.031	0.044			
			0.181	0.051			H3a supported
EAW PMI	x	EJW					
EJW EMT	x	IWB					
						(0.049, 0.133)*	H3b supported
						(0.034, 0.200)*	
			0.115	0.046			
			0.151	0.049			H3c supported
EJW EMT	x	AWB					
EJW EMT	x	EWB					
						(0.011, 0.257)*	H5a supported
						(0.043, 0.108)*	
			0.176	0.049			
			0.103	0.050			H5b supported
EJW PMI	x	IWB					
EJW PMI	x	AWB					
EJW PMI	x	EWB	0.098	0.044		(0.042, 0.125)*	H5c

	supported

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