

## Model Testing *Whistleblowing*: Does Materiality Level Matter?

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### **Abstract.**

*This study aims to empirically test the effectiveness of the whistleblowing model in encouraging individuals to report wrongdoing. Based on path-goal theory, leaders will help and support their employees in achieving their goals and ensure that these goals align with organizational goals. Therefore, an individual's intention to report fraud will be greater if there is a clear structure for achieving goals and reducing obstacles. The individual's need for security, as expressed in Maslow's hierarchy theory, requires an anonymous reporting channel. This study was tested using an experimental method involving 58 participants from two universities. The results showed that under structural model conditions, both anonymous and non-anonymous channels were equally effective in encouraging individuals to whistleblow. Between the two channels, there was no difference in the intention to report fraud. In addition, this study also tested the influence of the materiality level of fraud, material and immaterial, the results showed that the materiality level also had no difference in reporting both anonymously and non-anonymously.*

**Keywords:** Reporting pathways, materiality, structural model and whistleblowing intention.

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### **I. INTRODUCTION**

The importance of whistleblowing in detecting and exposing wrongdoing within an organization has been recognized by many regulators worldwide. Whistleblowing is an effort to achieve economic and social goals, so perpetrators expect support from various parties to achieve these goals. However, the reality is that they often face many threats. Elliston (1982) stated that as employees, they have few rights and will be rejected by many other employees. Retaliation is one of the negative consequences of whistleblowing. Research related to the retaliation that will be received by employees who do whistleblowing has been conducted, such as Liyanarachichi and Newdick, 2009; Arnold and Ponemon, 1991; Elliston and Coulson, 1982. As a result, people will hesitate to do it in the public area and instead they will do it behind a veil of secrecy (Elliston, 1982).

Given the importance of whistleblowing, a method is needed to encourage its effectiveness in uncovering wrongdoing within organizations. The Sarbanes-Oxley Act of 2002, Sections 301 and 806, was specifically designed to encourage whistleblowing and provide protection from retaliation for employees who disclose unclear matters regarding accounting and auditing. Sections 301 and 806 require audit committees of public companies to establish anonymous reporting channels to identify and detect accounting fraud and control weaknesses. The existence of anonymous reporting channels will reduce reporting costs (Kaplan and Sclutz, 2007; Ayers and Kaplan, 2005; Near et al., 2004; Near and Miceli, 1995). This regulation is essential because the reality shows that major fraud cases are revealed by employees or the media, not by auditors, who have the authority to uncover fraud. This is evidenced by research by Dyck et al. (2007) which shows evidence that the media (including academic publications) contributed 23.5% and employees 16.8%.

Kaplan et al.'s (2009) research tested the effectiveness of anonymous reporting channels to encourage individuals to report fraud, which was proven under structural model conditions.<sup>1</sup> Their research provides evidence that internal auditors are more likely to report wrongdoing to higher authorities when incentives are provided. Ayers and Kaplan (2005) examined the effect of the materiality level of wrongdoing on an individual's intention to whistleblow, both anonymously and non-anonymously. The results showed that the materiality level influenced the intention to report wrongdoing, both anonymously and non-anonymously.

Several studies related to factors influencing whistleblowing have been conducted in the audit context (Taylor and Curtis, 2010; Taylor and Curtis, 2009; Xu and Ziegenfuss, 2008; Brennan and Kelly, 2007; Seifert, 2006; Mismar-Magnus and Viswesvaran, 2005), while there is still little research on whistleblowing in the field of management accounting (Seifert et al., 2010; Kaplan et al., 2009; Loeb and Cory, 1989). Whistleblowing can be viewed from two perspectives: from the auditor's perspective and from the accountant's or management accountant's perspective. Internal auditors have a job role as the party that seeks and reveals irregularities in financial reporting. Meanwhile, accountants and management accountants are parties who have a position to observe, participate in, or have knowledge of financial statement fraud (Seifert et al., 2010). Management accountants have obligations to the organizations they serve, their profession, the public, and themselves (Chiasson et al., 1995). The Institute of Management Accountants (IMA), in its code of ethics standards for management accountants, states that: management accountants have a responsibility to refrain from disclosing confidential information, to confirm adverse information, and to disclose all relevant information. Therefore, when a management accountant is confronted with irregularities, the IMA code of ethics rules state that the management accountant has a responsibility to communicate the irregularities. This responsibility to communicate adverse information can be understood as the management accountant's responsibility to behave as a whistleblower (Chiasson et al., 1995).

This study aims to examine the reporting pathways and conditions of an appropriate organizational policy model that is considered more effective in encouraging employees to whistleblow in the context of management accounting. The results of this study are expected to empirically demonstrate the effectiveness of the whistleblowing model in encouraging individuals to report wrongdoing.

## II. THEORETICAL BASIS AND HYPOTHESIS DEVELOPMENT

### ***Whistleblowing***

Near and Miceli (1985) define Whistleblowing as follows:

*The disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action.*

Seifert (2006) clarifies the definition above by defining an illegal act as a crime that can be punished according to law, an immoral act as an action that the whistleblower perceives as wrong/violating the rules and an illegitimate practice as an action that the whistleblower interprets as outside the organization's authority.

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*The disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action.*

Whistleblowing will be successful if supported by communication tools that can consider the audience, purpose, language, and tone of the wrongdoing (King, 1999). According to Miceli and Near (1985), whistleblowing can be done internally and externally. Of the two reporting sources, internal and external, there are several advantages to whistleblowing done internally. Problems within the organization can still be resolved internally before the full scandal is revealed externally. In addition, internal disclosure will create an ethical atmosphere in the organization where employees are encouraged to report unethical behavior (Barnet et al., 1993).

Whistleblowing is an effort to achieve economic and social goals, so the perpetrators expect support from various parties to achieve these goals. However, the reality is that they often face many threats, such as retaliation (Liyanarachichi and Newdick, 2009; Arnold and Ponemon, 1991; Elliston, 1982; Elliston and Coulson, 1982).

### ***Whistleblowing and Anonymity***

*Sarbanes-Oxley Act* The 2002 Sarbanes-Oxley Act requires audit committees of publicly traded companies to establish an anonymous reporting channel to identify and detect accounting fraud and control weaknesses. The Sarbanes-Oxley Act 2002 requirement for an anonymous reporting channel to report

accounting irregularities is consistent with the findings of previous studies by Schultz et al. (1993) and Schultz and Hook (1998).

The existence of this anonymous reporting channel will reduce reporting costs (Kaplan and Schlutz, 2007; Ayers and Kaplan, 2005; Near et al., 2004; Near and Miceli, 1995). This is because the confidentiality of the reporter's identity will reduce the level of retaliation they will receive.

### ***Anonymity and Structural Model***

Moberly (2006) stated that the structural model is based on the assumption that companies establish visible, rigorous, and formal internal channels for uncovering wrongdoing. The structural model provides a direct and legitimate reporting channel from employees to the board of directors. This direct channel to the board of directors encourages effective whistleblowing by avoiding information blocking and filtering by company executives (Moberly, 2006).

According to path-goal theory, the leader's job is to help followers achieve their goals and provide guidance or support as needed to ensure that their goals align with the goals of the group or organization. The term path in this theory stems from the belief that effective leaders will outline a path to help followers move from their current position to their desired work goals and make the journey along that path easier by reducing existing obstacles.

However, in reality, this structural model is ineffective in encouraging whistleblowing because individuals will fear retaliation if they report wrongdoing. According to Maslow's hierarchy of needs theory, one of the human needs is safety needs. Safety needs refer to a person's need for security and protection from physical and emotional harm, as well as assurance that physical needs are met. Therefore, an anonymous reporting channel will fulfill one of the individual's needs for security. Therefore, it is necessary to create a reporting channel where employees can report wrongdoing without fear. Sarbanes-Oxley requires the provision of an anonymous reporting channel that will encourage employees to provide information without fear. With an anonymous reporting channel, individuals will feel more comfortable and safe because their identities are protected.

According to Kaplan et al. (2009), the effectiveness of anonymous reporting channels depends on (1) the level at which employees discover fraud or fraudulent clues, and (2) the employee's willingness to report their findings to the appropriate recipient. They believe that anonymous reporting channels may be the most effective mechanism for detecting fraud earlier than others and may potentially help prevent or limit future fraud. In Kaplan et al.'s (2009) study, the proposed structural model for reporting is divided into two types: through a hotline provided internally by the company with weak procedural security, and an external channel, through a third party outside the company with strong procedural security. Both channels are anonymous. The sample used in the experimental study was graduate students. The results indicate that respondents' intention to report fraudulent acts is greater through the reporting channels provided internally.

Seifert et al. (2010) also tested the effectiveness of anonymous reporting channels under structural model conditions. Their research focused on company policies and management behaviors that might influence employees' decisions to disclose financial reporting fraud. Their research incorporated procedural justice theory into the design of whistleblowing policies and procedures.

H1: Under the structural model conditions, anonymous reporting channels will be more effective for reporting wrongdoing than non-anonymous reporting channels.

### ***Whistleblowing and materiality***

The concept of materiality is a subjective matter, where its determination is based on personal judgment (Patterson and Smith, 2003; Chewning Jr. and Higgs, 2002; Loeb and Cory, 1989). Materiality is typically used to determine the level of misstatement in financial statements. Materiality is a characteristic inherent in a report, fact, or item whose disclosure or manner of disclosure influences a person's judgment (Hick, 1964).

SFAC Statement No. 2 states that a misstatement is considered material if the decision of a person using the information is changed or influenced by the magnitude of the misstatement. Therefore, when the issue is material, the next step is to disclose it within the organization (Loeb and Cory, 1989). De George

(1981) stated that determining the materiality level of wrongdoing is one of the steps that must be taken before someone decides whether or not to report an action.

Schultz et al. (1993) and Kaplan and Whitecotton (2001) examined the effect of materiality on an individual's intention to report wrongdoing. Schultz et al.'s (1993) research showed different results across three different countries. Meanwhile, Kaplan and Whitecotton (2001) showed no significant effect between the level of materiality and the intention to report wrongdoing.

Ayers and Kaplan's (2005) research further examined two different reporting channels: anonymous and normal (non-anonymous). The results showed that the level of materiality influences a person's intention to report wrongdoing. From the above research, the following conclusions can be drawn:

H2: The intention to report wrongdoing through both anonymous and non-anonymous channels in the structural model conditions will be higher if the wrongdoing is more material.

### III. RESEARCH METHODS

This study used a 2x2 between-subjects experiment. The experiment was designed using three treatments: material and immaterial case conditions, in the reward model, and in the structural model, through anonymous and non-anonymous channels. The experimental design (Table 3.1) was used. The experimental method was used due to its high level of internal validity. The choice of the between-subjects design was intended to avoid the risk of training effects and carryover effects in the experiment. This is because in a between-subjects design, each subject will only receive one manipulation (Harsha & Knapp, 1990).

**Table 1**  
*Experimental Group Design*

		Channel		
		Anonymous	Non-anonymous	
Model	Structural	Material	Group 1	Group 2
		Immaterial	Group 3	Group 4

#### Participants

Participants in this study were accounting students who had previously taken management accounting courses. The participants were accounting students from a state university and a private university in Yogyakarta. The reason for using students who had taken management accounting courses was that they had a better understanding of their role in observing, participating in, or having knowledge of fraud in financial reporting and experiencing ethical conflict situations (Seifert et al., 2010 and Loeb and Cory, 1989). In the experiment, participants would play the role of senior accountants in a company. As a senior accountant, the participants would report fraud committed by the company's CFO. The fraud committed by the CFO was intended to achieve the earnings forecast for that quarter.

*Pilot test* The pilot test was conducted on 37 postgraduate students at a state university in Yogyakarta, simultaneously across two classes. The researchers obtained several insights from the pilot test, including how to conduct the experiment, replacing people's names in the cases with Indonesian names, and the layout.

A pilot test was conducted with 37 postgraduate students at a state university in Yogyakarta. Some input included experiment organization, replacing foreign names with Indonesian names, and layout. Furthermore, the experiment consisted of students from a state university in Yogyakarta. A total of 58 students agreed to participate and followed through to the end.

#### Variable Operational Measures

##### *Whistleblowing intention*

*Whistleblowing* In this study, it refers to the intention of individuals as employees of an organization to report wrongdoing committed by individuals or corporations to internal sources of the organization.

Individuals' intention (INT) to report fraud served as the dependent variable. This dependent variable in this study was measured using self-assessment. Participants were asked to rate their intention to report

fraud committed by the CFO on a nine-point Likert scale. The instrument used was previously used by Seifert et al. (2010) and Seifert (2006).

### ***Anonymous and non-anonymous***

Anonymous reporting is a reporting channel where the identity of the person reporting the wrongdoing remains confidential. Non-anonymous reporting is a reporting channel where the identity of the person reporting the wrongdoing is known.

Anonymous and non-anonymous reporting channels were manipulated by including statements related to the reporting channel. This manipulation was adopted from research by Kaplan et al., 2009, Seifert et al., 2010, Ayers and Kaplan, 2005. Anonymous and non-anonymous reporting channels were manipulated by statements related to the reporting channel. This manipulation is adopted from Kaplan et al. (2009), Seifert et al. (2010), and Ayers and Kaplan (2005).

### ***Structural model and reward model***

*Structural model*(STRM) is a mechanism that provides a legitimate reporting channel from employees directly to the board of directors. The structural model is based on the assumption that companies establish a visible, diligent, and formal internal channel for disclosing wrongdoing. A direct channel to the board of directors will encourage effective whistleblowing by avoiding the blocking and filtering of information by company executives.

### ***Materiality***

Materiality is the magnitude of a material misstatement of accounting information that makes it likely that the judgment of a person relying on the information would be changed or influenced by the misstatement.

The materiality level was manipulated by using different figures for the revenue amount misreported by the CFO. The percentage of the materiality level recognized by the company is also presented. The amount of misstatement considered material (MTRL) is at or above 1%, while the amount of misstatement considered immaterial (IMMTRL) is below 1% of gross revenue.

### ***Assignment Procedure***

The intention to whistleblow was measured using an instrument that has been widely used by previous researchers such as Seifert et al., 2010; Kaplan, 2009; Seifert, 2006. The three studies were designed in a structural model condition while the materiality level was manipulated by using different numbers plus information that the company recognizes a materiality level of 1% of gross income.

The experimental process began with reading the experimental instructions regarding the conditions for conducting the experiment. The first step was to divide participants into groups, each consisting of 10 participants and supervised by one experimental instructor. This group was created to facilitate the distribution of experimental cases and to monitor implementation to ensure participants did not collaborate. Then, participants were asked to fill out a participant consent form and an attendance list. The second step was to distribute the experimental cases to each group by each instructor. After all participants received the instructions, the third step was to work on the experimental cases and answer questions.

In this case, the participant plays a senior accountant working for a publicly traded company engaged in the development, licensing, and advertising of on-screen television guide technology. This technology allows subscribers to choose from a wide variety of television programs. The company generates revenue from licensing the technology to third parties and the sale of advertisements displayed on the guide screen. The media industry is growing rapidly, and the company's financial situation is excellent. The company's average quarterly gross revenue is Rp 2,000,000,000. Sigit is a senior accountant reporting to the accounting manager, and the accounting manager reports to the CFO. Sigit's duties include recording revenue generated from these licensing contracts.

In the first quarter, the accountant discovered a general ledger entry of Rp 1,000,000,000 (material) or Rp 3,000,000 (immaterial) for sales revenue that he had never recorded. After investigating, it turned out that the entry was made by the CFO. The CFO stated that the revenue came from a contract that was still under negotiation and that it needed to be recorded to achieve the quarter's earnings forecast. The CFO also

told Sigit that the contract would soon be completed and would be recognized to the date the revenue was recorded (backdated).

By the third quarter, the CFO declared the contract a failure. The CFO stated that revenue would be reversed in the following quarter when revenue peaked. The accountant believed there had been an error in recording revenue on the company's quarterly financial statements.

Treatment for group 1: It is stated that the CFO posted Rp 1,000,000,000 in the general ledger. The company stated that the materiality level recognized by the company is 1% of gross revenue. The company has a policy to encourage its employees to report ethical violations to the appropriate person, namely directly to the board of directors. The company provides an anonymous reporting channel by calling a toll-free number. The reporter's phone number will not be recorded on the phone, so the reporter's identity is unknown.

Treatment for group 2: It is said that the CFO posted Rp 1,000,000,000 in the general ledger. The company stated that the materiality level recognized by the company is 1% of gross revenue. The company has a policy to encourage employees to report ethical violations to the appropriate person, namely directly to the board of directors. The company provides a non-anonymous reporting channel, namely a special complaint form containing the reporter's personal information, which is then submitted directly to the board of directors' office. The complaint form can be picked up from human resources staff.

Treatment for group 3: The CFO posted Rp 3,000,000 in the general ledger. The company stated that the materiality level recognized by the company is 1% of gross revenue. The company has a policy to encourage employees to report ethical violations to the appropriate person, namely directly to the board of directors. The company provides an anonymous reporting channel by calling a toll-free number. The reporter's phone number will not be recorded on the phone, so the reporter's identity remains unknown.

Treatment for group 4: It is stated that the CFO posted Rp 3,000,000 in the general ledger. The company stated that the materiality level recognized by the company is 1% of gross revenue. The company has a policy to encourage its employees to report ethical violations to the appropriate person, namely directly to the board of directors. The company provides a non-anonymous reporting channel, namely a special complaint form containing the reporter's personal information, which is then submitted directly to the board of directors' office. The complaint form can be picked up from human resources staff.

#### IV. RESEARCH RESULTS AND DISCUSSION

##### Characteristics of participants

The number of participants who passed the manipulation check was 123 out of 205. To determine whether there was an influence between demographic variables and the dependent variable, the demographic data of the participants who passed was then examined first. The results showed that demographic variables did not influence individual intentions to whistleblow (Table 4.2). Table 4.3 shows the characteristics of the participants who passed this study.

<b>Panel: Test Between Subject Effect</b>				
	<b>Dep Variable: Intention to Whistleblowing</b>			
<b>Source</b>	<b>SS</b>	<b>df</b>	<b>F</b>	<b>Sig</b>
<b>Control Variables</b>				
<b>Gender</b>	0.25	1.00	0.11	0.74
<b>Organizational</b>	3.74	3.00	0.54	0.66
<b>Business Ethics</b>	1.96	2.00	0.42	0.66

**Table 3**

<b>Demographic Characteristics</b>			
<b>Data</b>	<b>Level</b>	<b>Frequency</b>	<b>%</b>
<b>Gender</b>	Man	26	44.82
	Woman	32	55.17
<b>Business Ethics</b>	Already	18	31.03
	Currently	20	34.48
	Not yet	20	34.48

**Hypothesis Testing**

In this experiment, the university (UNIV) and batch (BATCH) were first tested for whistleblowing intention (INT). This test was conducted to determine whether there were differences in the scores of the dependent variable between the two universities and between the five experimental batches. The results of the test on these control variables were insignificant, indicating that the BATCH and UNIV variables had no effect on INT. See panel A of Table 4.5.

**Results and interpretation of main effects**

The main influence of the Materiality variable (MATERIAL) on the intention (INT) to whistleblow is significant, with an F value of 6.089 and a probability of 0.015, which is below the 0.05 significance level (Panel A; Table 4.5). Meanwhile, when viewed from the average, the material level of materiality (MTRL) has an average of 7.816 and immaterial (IMMTRL) of 7.190. The average of both has a significant difference with a significance level of 0.015.

The main effect of the channel variable (CHANNEL) on the intention (INT) to whistleblow is not significant, with an F value of 1.56 and a probability of 0.215, which is above the 0.05 significance level (Panel A; Table 4.5). Meanwhile, when viewed from the average, the anonymous channel has an average of 7.344 and the non-anonymous channel is 7.661. The average of both does not have a significant difference with a significance level of 0.257.

**Table 4.]**

<b>ANOVA Test Results, Means (SD) and Comparisons Between Cells</b>				
<b>Panel A: Test Between Subject Effect</b>				
Source	Dep Variable: Intention to Whistleblowing			
Control Variables	SS	df	F	Sig
<b>Batch</b>	8.80	4	0.96	0.43
<b>University</b>	1.64	1	0.72	0.40
<b>Main Effect</b>				
<b>Materiality</b>	10.09	1	6.09	0.15
<b>Channel</b>	2.39	1	1.56	0.22
<b>Interaction effect</b>				
<b>Materiality * Channel</b>	0.00	1	0.00	0.99
<b>Error</b>	162.42	98		
<b>Correlated Total</b>	240.46	105		
<i>R Squared= 0.325 (Adjusted R squared= 0.276)</i>				
<b>Panel B: Means (SD) and Number of Participants in Each Cell</b>				

		<i>Channel</i>	
		<i>Anonymous</i>	<i>Non-anonymous</i>
<b>Model</b>	<b>Structural</b>	<i>Material</i> $\bar{x}= 8.50$ (0.522) N=12	$\bar{x}= 7.41$ (1.325) N=17
	<b>Immaterial</b>	$\bar{x}= 8.14$ (1.099) N= 14	$\bar{x}= 6.8$ (1.320) N=15
<b>Panel C: Comparison</b>			
Comparison	Mean diff (JI)	SE	Sig
<b>Group 1 - Group 2</b>	1.09	0.49	0.33
<b>Group 3 - Group 4</b>	1.34	0.48	0.11
<b>Group 1 - Group 3</b>	0.36	0.51	0.99
<b>Group 2 - Group 4</b>	0.61	0.46	0.88

## Results and Interpretation of Interaction Test

In this sub-chapter, the results of the interaction test between variables in the 2x2x2 between-subject experimental design as designed in Table 4.3 will be presented. The results of the analysis to see the interaction between variables can be seen in panels B and C of Table 4.5.

The results of the Post Hoc test are summarized in Table 4.5. The Post Hoc results show that:

- a. *Mean difference*The difference between group 1 (Model = Stream, Materiality = Meter, Channel = Anonymous) and group 2 (Model = Stream, Materiality = Meter, Channel = Non-Anonymous) is not significant. This means that there is no difference in individual intention to report material fraud cases in the structural model conditions between anonymous reporting channels and non-anonymous reporting channels.
- b. *Mean difference*The difference between group 3 (Model = Stream, Materiality = Immaterial, Channel = Anonymous) and group 4 (Model = Stream, Materiality = Immaterial, Channel = Non-Anonymous) is not significant. This means that there is no difference in individual intention to report immaterial wrongdoing cases in the structural model conditions between anonymous reporting channels and non-anonymous reporting channels.

From points a and b above, it can be concluded that alternative hypothesis 1 is not accepted. This means that neither anonymous reporting channel nor non-anonymous reporting channels are more effective in encouraging individuals to whistleblow under the structural model conditions.

- c. *Mean difference*The difference between group 3 (Model = Stream, Materiality = Immaterial, Channel = Anonymous) and group 1 (Model = Stream, Materiality = Immaterial, Channel = Anonymous) is not significant. This means that the intention to report material and immaterial wrongdoing does not differ when under the structural model conditions and through the anonymous channel.

- d. *Mean difference*Group 2 (Model = Stream, Materiality = Material, Channel = Non-Anonymous) and Group 4 (Model = Stream, Materiality = Immaterial, Channel = Non-Anonymous) were not significant. This means that the intention to report material and immaterial wrongdoing does not differ when in the structural model condition and through the non-anonymous channel.

From points c and d above, it can be concluded that alternative hypothesis 3 is not accepted. This means that the level of materiality does not influence an individual's intention to report wrongdoing, either anonymously or non-anonymously.

### Control Group Testing

The test results showed that the mean difference between control group 2 (Materiality = Immaterial) and the treatment group (Treat) was significant. Meanwhile, control group 1 (Materiality = Material) and the treatment group (Treat) were not significant. This means that when wrongdoing is immaterial and the organization does not have any policies to encourage whistleblowing, individual intention to report is very low. In other words, the existence of a legislative model (structural) and reporting channels (anonymous, non-anonymous) are company policies that can encourage individuals to report wrongdoing.

## V. CONCLUSION

This study aims to test the effectiveness of the whistleblowing model to encourage individuals to report wrongdoing.

The results of this study show evidence that the effectiveness of anonymous reporting channels for reporting wrongdoing under structural model conditions is not proven. The results indicate that under structural model conditions, individuals will still report wrongdoing through both anonymous and non-anonymous channels. Furthermore, this study shows evidence that the level of materiality does not affect an individual's intention to report wrongdoing. This finding does not confirm the research of Ayers and Kaplan (2005), which stated that the level of seriousness of an act influences an individual's intention to report it both when using anonymous and non-anonymous channels.

The findings of the above study, which do not confirm previous research, are likely due to the fact that student participants perceive wrongdoing as unethical, even if the amount is immaterial and should be reported. For example, Finn and Lampe (1992) found that accounting students strongly supported

whistleblowing as unethical behavior compared to participants working as auditors. Their findings align with Elias (2008), who stated that students generally perceive whistleblowing as important because it is related to fraud.

In addition to these three hypotheses, this study found evidence that anonymous reporting channels, under both structural model conditions, are equally effective in encouraging whistleblowing. Further evidence suggests that in cases of immaterial and nonmaterial wrongdoing, there is no difference in reporting intentions. Both encourage individuals to report.

### **Suggestion**

As a basis for improving the limitations in this research, here are some suggestions that can be carried out in further research:

Future research could further examine the influence of religiosity on whistleblowing intentions. This study used samples from a religious-based private university and a non-religious public university. Bromley (1998) stated that whistleblowing involving religious organizations is still very rare. Therefore, it would be interesting to expand whistleblowing research and focus on the religious organizational sector. Furthermore, future research might examine the religiosity of the individual's organization rather than the religiosity of the individual, using instruments related to religiosity.

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