

RESEARCH ARTICLE

# Fraud and Error Misstatements and Auditor Liability: The Moderating Role of the Evaluator's Auditing Knowledge

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Although a restatement is usually assumed to result from fraudulent behavior, Plumlee and Yohn (2010) studied whether a restatement might be attributed to both errors in the corporation's internal controls and intentional misrepresentation. Moreover, prior research supports the notion that investors, regulators, boards, and other stockholders differentiate between fraud and error (Hennes et al., 2008). This study provides a preliminary understanding of how undetected fraud and error misstatements affect auditor liability, given the same outcome severity. A 2x2 between-subject experiment was conducted using undergraduate accounting students to represent evaluators who have high levels of auditing knowledge and nonaccounting students to represent evaluators with low levels of auditing knowledge. The results from the experiment indicate that evaluators with high auditing knowledge assess auditors as less liable in cases of undetected misstatements due to fraud rather than an error. In contrast, less knowledgeable evaluators rate auditors as being more liable in such cases. The findings of this study provide some insights that benefit the audit profession, standard setters, and the Security and Exchange Commission (SEC) concerning the auditor's responsibility relating to fraud by demonstrating that different types of misstatements (i.e., fraud and error) contribute to differences in auditor liability judgments, especially when misstatements are evaluated by evaluators with different levels of auditing knowledge. This finding also suggests that the auditor litigation risk created by the expectation gap will remain despite any attempt to minimize it.

**Keywords:** misstatement due to error, misstatement due to fraud, auditing knowledge, experiment, auditor liability, counterfactual reasoning

**JEL Classification:** M41

Auditors play an important role in ensuring the integrity of financial reporting. One of the greatest challenges in evaluating audit performance is that audit quality is difficult to observe and measure (Peecher et al., 2013). However, a restatement can indicate poor audit quality, thereby potentially imposing substantial litigation costs on auditors. In most studies, restatements have been examined in association with market reaction, cost of capital, executive turnover, and auditor dismissal (Palmrose et al., 2004; Hribar & Jenkins, 2004; Desai et al., 2006; Hennes et al., 2014). The consequences of restatements have generally been explored based on the premise that restatements are due to intentional misreporting. Although a restatement is usually assumed to result from fraudulent behavior, Plumlee and Yohn (2010) addressed whether the cause of restatements can be attributable to both fraud and error. Moreover, prior research supports the notion that investors, regulators, boards, and other stockholders differentiate between fraud and error (Hennes et al., 2008). For example, Palmrose et al. (2004) reported that market reaction to restatements related to fraud is more negative than the market reaction to restatements related to the error. Additionally, Kinney (2000) noted that fraudulent misstatements tend to have more serious implications than misstatements due to error, even when the misstatements are of the same magnitude.

The difference between fraud and error has been extensively studied in terms of market reaction (e.g., Kinney, 2000; Hennes et al., 2008; Dechow et al., 2011), but differences between fraud and error misstatements have not been adequately studied and explained in the context of auditor liability. Previous research has indicated that the existence of any type of misstatement is a significant factor in auditor litigation. Detecting and disclosing material misstatements, whether they are due to fraud or error, is a significant element in supplying auditing services, and litigation is a possible consequence for auditors who fail to fulfill their responsibilities in this regard (Bonner et al., 1998). As a result, it is important to understand better whether different types of misstatements affect the likelihood of liability differently, as class action lawsuits have occasionally followed fraud and error misstatements (Hennes et al., 2008).

The use of inexperienced evaluators who lack auditing knowledge has been recently debated in the auditor liability literature (Grenier et al., 2015; Kadous, 2001; Reffett et al., 2012; Anderson et al.,

1998; Arel et al., 2012). Inexperienced jurors cannot fully understand the audit process and procedures and certain complexities in the audit profession. In complex accounting schemes, such as fraud, the detection risk is argued to be exceptionally high when the company's management and personnel collude to conceal the fraud (Eutsler et al., 2016). As collusive fraud is recognized in the auditing standards as being very difficult to detect, evaluators with more auditing knowledge should be aware of this difficulty; thus, these evaluators are expected to assess fraud-related misstatements less severely than error-related misstatements. On the other hand, evaluators who lack certain auditing knowledge might be unaware that the detection risk of fraud is higher than that of error. Therefore, differences in misstatement types are argued to be one of the factors potentially causing evaluators to form different expectations and judgments in assessing an auditor's liability. However, this study is not set in the context of a jury trial. More broadly, auditors must also consider public opinion, which can impose reputational harm in addition to any legal settlements (Donelson et al., 2014).

This study examines the differences in auditor liability judgments caused by misstatement types (i.e., fraud and error) as judged by a group of evaluators with different auditing backgrounds. It provides evidence that shows how differences between fraud and error misstatements affect evaluations of auditor liability. As expected, the results indicated that fraud and error misstatements cause different liability judgments. Liabilities assessed by more knowledgeable evaluators are lower in fraud cases than in error cases. However, less knowledgeable evaluators rated error-related misstatements less severely than fraud-related misstatements. In terms of the liability assessment by each group, more knowledgeable evaluators assessed an auditor's liability through counterfactual reasoning, whereas less knowledgeable evaluators based their assessment primarily on affective considerations.

This study contributes to the accounting literature. Prior studies have suggested that less knowledgeable evaluators generally portray biases arising from the outcome and that levels of outcome severity affect liability judgments. Few previous studies have examined how misstatement types impose litigation levels against the alleged auditors, given similar outcome severity. As academics and practitioners have suggested that evaluators with different levels of

audit knowledge reach different liability judgments and have proposed the use of audit experts in panels in negligence lawsuits (Reffett, 2010; Reffett et al., 2012), the results of this study add to the literature regarding the ways differences in the levels of auditing knowledge of evaluators can cause different liability judgments. Particularly, the evaluator's liability assessment decision is possibly influenced by differences in the types of misstatements. This study, however, does not intend to indicate which group provides better liability judgments. The findings provide theory and evidence of the joint effect of different types of evaluators and misstatements that contribute to different attributions of blame in auditor liability decisions.

The remainder of this paper is organized as follows: The next section provides background information and develops the hypothesis. Section 3 discusses the experimental design. The results and discussion are presented in Section 4. Section 5 concludes the study.

## Literature Review and Hypothesis Development

As stated in the auditing standard, auditors shall be responsible for assessing the risk of material misstatements, whether due to fraud or error, in financial statements (International Standards on Auditing [ISA] 240, 2010). Given that detecting material misstatements due to fraud or error is a significant element in providing auditing services, litigation against auditors is a possible consequence for those who fail to fulfill their responsibility to detect material misstatements. Therefore, previous research indicated that the existence of any type of misstatement is a significant factor in auditor litigation (Bonner et al., 1998). In accordance with the International Standards on Auditing [ISA] 315 (2019), International Standards on Auditing [ISA] 240 (2010) focuses on the auditor's responsibilities relating to fraud in an audit of financial statements.

As fraud-related scandals have severely damaged auditors' reputations, the audit profession and regulators have begun to issue an auditing standard that can reduce auditors' fraud detection responsibility and litigation exposure (Cohen et al., 2015). International Standards on Auditing [ISA] 240 (2010), particularly, stated that auditors are responsible for obtaining reasonable assurance that financial statements are free from material misstatement, whether caused

by fraud or error, and acknowledged that although the audit may be properly conducted, some material misstatement might be undetected. The limitations on fraud detection responsibility and litigation exposure are particularly significant in the case of misstatements resulting from fraud—the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting a material misstatement due to error. Therefore, due to the complex characteristic of fraud, the standard also states that auditors should use their professional skepticism to indicate any possible material misstatement (International Auditing and Assurance Standard Board, 2010). In fact, professional skepticism is particularly important when considering the risk of material misstatement due to fraud (International Auditing and Assurance Standard Board [IAASB], n.d.).

According to the International Standards on Auditing [ISA] 240 (2010), the primary responsibility for preventing and detecting fraud rests with both those charged with governing the entity and management. Although accounting professionals contended that detecting fraud is not their absolute responsibility, the public believes that it is (Firth et al., 2005). Thus, it is argued that investors cannot tolerate audit failure because the audit has long been legitimized for fraud detection. This view leads to the vital concern that the expectation gap, the difference between the societal view of the scope of the auditor's responsibility and the view of audit professionals, will impose an unreasonable litigation risk on auditors (Anderson et al., 1998).

### *Assessing Auditor Liability*

To develop theoretical support for the hypothesis, counterfactual reasoning and the culpable control model are used. Counterfactual reasoning posits how counterfactual thought enhances the evaluator's negative affective reaction to negative outcomes. However, the culpable control model, unlike counterfactual reasoning, links affective reaction to the attribution of blame (Alicke, 2000; Alicke & Rose, 2012). According to the culpable control model, an affective reaction may directly or indirectly affect the blame assessment by analyzing outcome controllability. In both cases, the negative affect should result in a higher auditor liability assessment.

Counterfactual thinking is generally expressed as, "If X were different, the outcome would have

been avoided" (Roese & Olson, 1996, p. 201). This counterfactual implies that X caused the outcome. In contrast, if the counterfactual condition is, "Even if X were different, the outcome would have been the same" (Roese & Olson, 1996, p. 201), the X, in this case, cannot undo the adverse outcome. Therefore, the causality of X to the outcome is expected to decrease. Counterfactual thought substantially influences responsibility attribution because such thought involves comparing actual negative outcomes to alternatives.

In the audit context, the application of counterfactual reasoning to misstatements is indicated by the belief that other auditors could have conducted a better audit and detected the misstatement, thereby indicating that the audit failure would not have occurred if the current auditors had performed well during the audit. This causal counterfactual thought implies that the audit failure is somehow caused by the current auditors. This counterfactual thinking creates the outcome contrast arising when the actual outcome is different from the evaluators' counterfactual thinking (i.e., alternative outcome). The high outcome contrast would then activate the negative emotion toward the outcome. However, when counterfactual thinking indicates that even if another auditor had conducted the audit, the misstatement would still have occurred, a lower outcome contrast (and less negative feeling toward the outcome) should result.

### ***The Effect of Misstatement Types on Auditor Liability Assessment***

There is an ongoing debate in the auditor liability literature concerning whether the use of different types of evaluators (i.e., independent experts and inexperienced jurors) can alter the severity of an auditor's liability judgment (Anderson et al., 1998; Arel et al., 2012; Reffett et al., 2012; Grenier et al., 2015). This difference in audit knowledge would cause each evaluator to develop different schemas, formed based on prior experience, to frame the way they think about the plausible causes of the outcome (Brow & Solomon, 1991). The underlying mechanisms of the schemas are that they influence how the evaluators construct the narrative when interpreting the case and assessing liability (Meller et al., 1997; Schkade & Kilbourne, 1991; Libby & Luft, 1993; Robbennolt, 2000).

In this context, both high-auditing-knowledge and low-auditing-knowledge evaluators are expected

to have different perceptions concerning fraud and error. These different perceptions cause evaluators to process information with different schemas and expectations to generate counterfactual thoughts when interpreting cases of material fraud and error misstatements. Different perceptions between auditors and nonauditors in terms of fraud detection due to the distinct audit knowledge of auditors have recently been demonstrated in the news about fraud detection lawsuits. A plaintiff's and an alleged auditor's claims are shown below.

Mr. Thomas' team had claimed that PwC was in a position to catch and stop the fraud but missed multiple red flags. In its opening statements, PwC countered that no auditor can reasonably be expected to catch a well-organized and determined fraud. (McLannahan, 2016, par. 9)

Furthermore, the study by Kadous (2000) also asserted that the distinction between fraud and error is particularly relevant to upper-level accounting students, who are assumed to possess certain knowledge of auditing. However, it is unclear whether lay evaluators would perceive a distinction between fraud and error or react similarly. Although neither misstatement type is emphasized to a greater or lesser extent in terms of the consequences, the different counterfactual thinking generated by different groups of evaluators would lead to different assessments of the auditor's liability. This reasoning leads to the hypotheses of this study.

- H1:** Compared to auditor liabilities assessed by less knowledgeable evaluators, auditor liabilities assessed by more knowledgeable evaluators will be higher for error-related than for fraud-related misstatements.
- H2:** Compared to auditor liabilities assessed by more knowledgeable evaluators, the auditor liabilities assessed by less knowledgeable evaluators will be higher for fraud-related misstatements than for error-related misstatements.

### ***Experimental Design***

This study used a 2×2 between-subject experimental design in which the participants evaluated the auditors for undetected misstatements caused by fraud or error. The experiment manipulated whether the participants

had high or low auditing knowledge. Participants with high auditing knowledge were undergraduate accounting students in their last year. All the high-auditing-knowledge participants had held a three- to six-month internship at leading audit firms. Participants with low auditing knowledge were students in their final year of study, were pursuing different majors in business, and had studied two fundamental accounting courses. Participation in the experiment was voluntary. Participants were first asked to read the participant information sheet and then informed that they were free to leave the room if they felt uncomfortable. Fraud and error misstatements were also manipulated by the specific case facts given to the participants.

### ***Participants***

One hundred eighty-five undergraduate students majoring in accounting at a major public university in Thailand were recruited to represent evaluators with high levels of auditing knowledge. Ninety-two undergraduate students pursuing nonaccounting majors were recruited to represent evaluators with low levels of auditing knowledge. All the accounting students were in their last year of study. All the accounting students had completed a three- to six-month internship program in reputable auditing firms. The use of students is considered appropriate as the objective is primarily to understand how fraud and error misstatements cause different auditor liability decisions when evaluated by evaluators with different levels of auditing knowledge. Moreover, even prior studies concerning auditor negligence lawsuits noted that student participants and jury-eligible adults selected randomly with more diverse backgrounds made similar judgments regarding auditor liability (Bornstein, 1999; Kadous, 2000; Kadous & Mercer, 2012; Reffett, 2010). In supporting the use of student participants, Libby et al. (2002) suggested that the use of sophisticated participants should be avoided when the study aims primarily to test a theory, which is the main objective of this study.

### ***Materials and Procedures***

Participants were invited to join the experiment and were compensated with extra class credits. The participants were asked to sit in the classroom and were randomly given a case of either fraud or error misstatements. The experimental case was adapted from Kachelmeier et al. (2014) and provided the

following information: (1) background material on a hypothetical firm (this material included a list of risk factors possibly relevant to the audit), (2) the unqualified auditor's report, and (3) information about the material misstatement. Because the experiment's setting was not a jury trial, the experimental instrument was not a court transcript but publicly available information. The preexperimental survey, company background, auditors' report, and news release were included in the first envelope. The second envelope contained the postexperimental manipulation check and demographic questions. All participants were asked not to review the materials in the first envelope while answering the questions in the second envelope. The instruments were also back-translated by two experts in accounting.

In the preexperimental survey, participants were asked to first respond to questions on their perceptions concerning fraud and error detection. Specifically, the participants had to indicate, based on their opinion, whether fraud is more difficult, less difficult, or equally difficult to detect when compared to error. After completing the preexperimental survey, the participants read the background material and unqualified auditor's report. After reading the first part of the information, the participants read the second part of the information, which informed them about the material misstatement caused either by fraud or error. The participants assessed the auditor's liability for the misstatement and completed a postexperimental manipulation check and demographic questions.

### ***Independent Variable***

This study examined two independent variables. First, the study manipulated the misstatement types: FRAUD and ERROR. In the fraud (error) condition, the misstatement information described financial misstatements that were caused by fraud (error). To investigate whether the misstatement type varies according to the type of evaluator, the second independent variable was manipulated at two levels by using two groups of participants with different levels of auditing knowledge: HIGH and LOW. Accounting students in their final year represented evaluators with high auditing knowledge, and nonaccounting students represented evaluators with low auditing knowledge. These two groups of participants clearly had different levels of auditing knowledge; thus, auditing knowledge was not a measured variable.

### ***Dependent Variable***

Prior studies measured auditor liability by asking the participants to indicate the likelihood of auditor negligence because most of the studies' experimental settings were court trials (e.g., Backof et al., 2014; Brasel et al., 2016; Gimbar, Hansen, & Ozlanski, 2016). Consequently, a negligent decision tends to be a court resolution. Because the jury system is not applicable in Thailand, the instrument in this study was developed based on public information rather than a court transcript. Consistent with Kachelmeier et al. (2014), we asked the participants to indicate the likelihood that the auditors would be liable for the misstatement. The participants were asked to indicate on a scale from 0 to 10 the level of the auditor's liability in performing the audit.

### ***Mediating Variable***

The mediating variable proposed in this study included (1) the intensity of the counterfactual thought and (2) affective reactions to the case. These variables were measured in the postexperimental survey. In the literature, differences in counterfactual intensity have been suggested to affect individuals' affective reactions (Sanna & Turley-Ames, 2000; Reffett, 2010). The counterfactual intensity and affective reactions to the case are expected to mediate the relationship between misstatement types and the evaluation of the auditor's liability. Counterfactual intensity was measured by asking the participants to rate, on a scale from 0 to 10, whether the other auditor could have performed better in detecting the identified misstatement. To measure affective reactions to the case, participants rated, on a scale from -10 to 10, their feelings toward the auditors and the plaintiff (-10 = very negative feelings to 10 = very positive feelings). The participants' responses regarding their affective reactions to the plaintiffs were subtracted from the participants' responses regarding their affective reactions to the auditors to create the overall affective reaction toward the case (-20 = pro plaintiff; 0 = neutral; 20 = pro auditor; Reffett, 2010; Backof, 2015).

## **Results and Analysis**

### ***Manipulation Check***

To ensure that manipulating the fraud and error misstatements was effective, the postexperimental survey asked the participants to indicate whether the

undetected misstatement was caused by fraud or error. A total of 93% and 85% of the evaluators with high and low auditing knowledge, respectively, provided the correct answer. The surveys of the participants who failed the manipulation check question were excluded from the analysis. However, including participants who failed the manipulation check does not significantly affect the experiment results.

### ***Descriptive Statistics***

Table 1 provides the descriptive statistics for the participants and their responses on auditor liability and the proposed mediating variables by different experimental conditions. The participants indicated the auditor's liability, counterfactual intensity, and the affective reaction by using an 11-point Likert scale. For the preexperimental question of whether fraud is more difficult, less difficult, or equally difficult to detect when compared to error, the results indicated that in the highly knowledgeable condition, 84.3% of participants indicated that fraud is more difficult to detect, and 15.7% of participants thought fraud is less or equally difficult to detect compared to error. In the low knowledge condition, 33% of participants rated fraud as difficult to detect. This preliminary finding about the detection of fraud supports the argument that evaluators with different levels of auditing knowledge perceive fraud and error differently, especially in terms of detection risk.

### ***Test of Hypotheses 1 and 2***

Figure 1 graphically depicts the results of H1 and H2; this figure displays the marginal mean from the ANOVA of the participants' rating of the auditor's liability. The results of hypotheses 1 and 2 are presented in Table 2. The main effects of the misstatement type and auditing knowledge are not significant ( $p = 0.232$ ,  $p = 0.052$ , respectively), but the interaction of auditing knowledge and the misstatement type is significant ( $p < 0.001$ ). This result suggests that differences in auditing knowledge moderate the relationship between misstatement types on the auditor liability assessment. To confirm the conventional ANOVA result for the interaction term, panel C of Table 2 reports the results of the planned contrast comparisons.

The contrast model used the contrast weight of (-1, 2) for the error/low auditing knowledge and fraud/low auditing knowledge and (2, -3) for error/high auditing knowledge and fraud/high auditing knowledge. The

**Table 1**  
*Descriptive Statistics*

**Panel A:** Descriptive statistics—participants

<b>Total participants</b>	277
Number of participants who fail manipulation check	27
Number of participants in the experiment	250

**Panel B** Descriptive statistics—dependent variable and proposed mediating variables

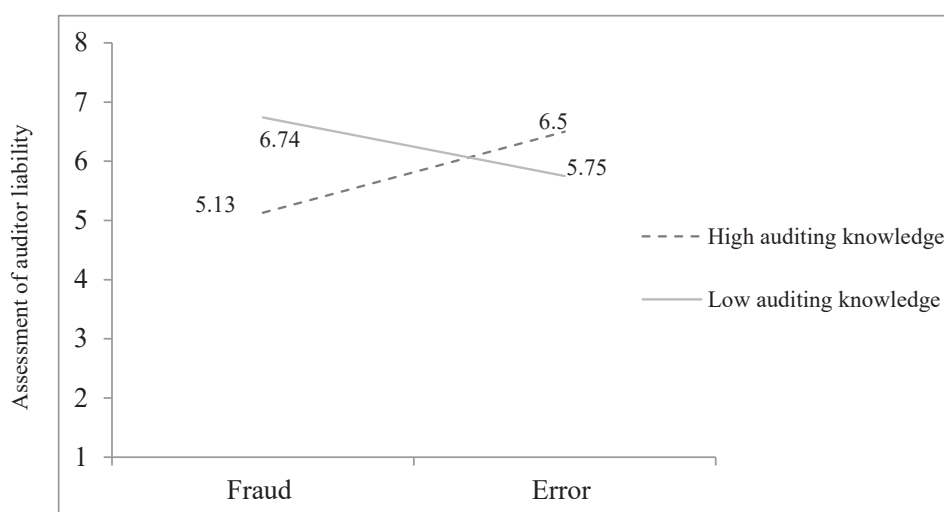
<b>Experimental conditions</b>	<b>Auditor liability Mean (Std. Dev.)</b>	<b>Counterfactual intensity Mean (Std. Dev.)</b>	<b>Affective reaction to the case Mean (Std. Dev.)</b>
High knowledge/Fraud (n = 88)	5.13 (2.32)	5.51 (1.77)	-1.42 (5.75)
High knowledge/Error (n = 84)	6.50 (1.67)	6.49 (1.85)	-3.69 (5.35)
Low knowledge/Fraud (n = 38)	6.74 (2.01)	6.66 (1.95)	-5.45 (5.87)
Low knowledge/Error (n = 40)	5.75 (1.35)	6.52 (1.50)	-3.28 (5.09)

Descriptions of the variables are:

**Auditor liability:** the participant's response on a scale from 0 to 10 regarding the extent to which the auditors are liable for a misstatement.

**Counterfactual intensity:** the participant's response on a scale from 0 to 10 regarding the extent to which the participant believes other auditors would have acted differently in detecting the misstatement.

**Affective reaction to the case:** calculated by subtracting participants' feelings toward the plaintiff (-10 = Very negative, and 10 = Very positive) from their feelings toward the alleged auditor (-10 = Very negative, and 10 = Very positive), so the overall feelings toward the case are on the scale of -20 = pro plaintiff, 0 = neutral, and 20 = pro auditor.



**Auditing knowledge:** high auditing knowledge involves the possession of certain auditing knowledge, while low auditing knowledge involves a lack of auditing knowledge.

**Misstatement types:** misstatements due to fraud and misstatements due to error.

**Figure 1**  
Graphical Relationship of Hypothesis

disordinal interaction between auditing knowledge and the misstatement type is significant ( $p < 0.001$ ). For the breakdown of the interaction of auditing knowledge and misstatement types, the planned contrast provides the simple effect of fraud and error misstatements, given high and low auditing knowledge. Consistent with the prediction of H1, the assessment of auditor liability for undetected misstatements is lower in fraud cases than in error cases when evaluated by highly knowledgeable evaluators ( $p < 0.001$ ). Similarly, H2 is also supported. For less knowledgeable evaluators, undetected misstatements due to error appear to negatively affect auditor liability assessments less than undetected misstatements due to fraud ( $p = 0.014$ ).

The (untabulated) results from the t-test of H1 and H2 are also provided. As expected, the auditor liability assessed by the highly knowledgeable evaluators was lower in the fraud case (mean = 5.13) than in the error case (mean = 6.50), ( $p < 0.001$ ). For the less knowledgeable evaluators, the assessed liability was significantly lower in the case of error (mean = 5.75) than in the case of fraud (mean = 6.74), ( $p = 0.028$ ). Overall, the experimental results support the notion that evaluators with different levels of auditing knowledge differentiate between fraud and error misstatements when they assess an auditor's liability.

## Discussion of Results

Participants with higher auditing knowledge were informed by the standard that material misstatements due to fraud are more difficult to detect when compared to misstatements due to error and that auditors particularly exercise their professional skepticism when conducting audits relating to fraud (International Auditing and Assurance Standard Board, 2010). With this knowledge, participants with higher auditing knowledge base their counterfactual thinking on the premise that the auditors have done the best they can to detect fraud. Therefore, these participants tend to rate auditor liability lower than the less knowledgeable participants did. The results are consistent with the counterfactual theory, which predicts that error misstatements should have a high outcome contrast for highly knowledgeable evaluators. This prediction is made because most participants perceive that other auditors should have detected the misstatement because an error misstatement is easier to detect than fraud. Consequently, error misstatements should generate a

greater feeling of negativity, thereby leading to a higher assessed auditor liability. Conversely, a low outcome contrast was expected for fraud misstatements. As fraud is difficult to detect, the counterfactual thinking to undo the outcome is more difficult in the case of fraud than in the case of error. Therefore, fraud generates less of a negative affective reaction in the highly knowledgeable participants and lower assessed auditor liability; the result is the converse for the less knowledgeable participants.

As addressed in Kadous (2000), lay jurors may or may not accept the claim by the audit profession that fraud is more difficult to discover and, thus, auditors are less responsible for failing to discover fraud than for failing to discover an error. The study further addressed the notion that the distinction between fraud and error is relevant to students in an upper-level accounting class; these students are assumed to possess certain knowledge of the auditing process. However, it is unclear whether or not jurors would perceive the distinction between fraud and error or react similarly. The findings from this study suggest that jurors, who are assumed to possess less auditing knowledge, view fraud and error differently from those with higher auditing knowledge. These findings are also consistent with those of previous studies in the auditor liability literature concerning the effect of different types of evaluators (i.e., experienced auditors and inexperienced jurors) on judgments concerning auditor liability. Although other studies focus on the different aspects of audit on auditor liability (examples of these aspects include the key audit matter (Grenier et al., 2015), the expectation gap (Anderson et al., 1998), internal control audit (Arel et al., 2012), and the audit quality (Reffett et al., 2012)), this study focuses on the effect of the types of misstatements on auditor's liability assessment.

## Robustness

Grenier et al. (2018) suggested that the participants' demographic data, such as gender, education, and age, should be considered to ensure that these data do not significantly vary across experimental conditions. In addition, prior studies in auditor liability judgment generally discussed age and gender as demographic data possibly affecting information processing (Chung & Monroe, 2001; Gimbar et al., 2016; Lowe et al., 2002). To eliminate the possibility that some differences in demographics can explain the observed



**Table 2**  
*Evaluator's Assessment of Auditor Liability*

**Panel A:** Mean (standard deviation) of the auditor liability assessment

Misstatement Type	Auditing Knowledge	
	High	Low
Error	6.50 (1.67) n = 84	5.75 (1.35) n = 40
Fraud	5.13 (2.32) n = 88	6.74 (2.01) n = 38

**Panel B:** ANOVA

Source of variation	df	Mean Square	F	p-value <sub>one-tailed</sub>
Auditing knowledge	1	9.96	2.66	0.052
Misstatement type	1	2.02	0.54	0.232
Auditing knowledge*Misstatement type	1	74.79	20.01	< 0.001
Error	246	3.74		

**Panel C:** Planned Comparison—Evaluators with high versus low auditing knowledge of an auditor's liability in fraud and error misstatements.

	p-value <sub>one-tailed</sub>
<i>Overall test of H1 and H2:</i> Interaction of auditing knowledge and misstatement types; contrast weight (-1, 2, 2, -3)	<0.001
<i>Follow-up simple effect tests:</i>	
H1: <i>High auditing knowledge:</i> auditor liability is higher in the case of error than in the case of fraud	<0.001
H2: <i>Low auditing knowledge:</i> auditor liability is higher in the case of fraud than in the case of error	0.014

differences in liability judgments, variables for age and gender were added as the covariate in the test. After controlling for age and gender, the analysis of covariance (ANCOVA) results (untabulated) indicated that age and gender did not affect the liability judgment ( $p = 0.258$ , and  $p = 0.127$  (one-tailed), respectively), whereas the interaction term of auditing knowledge and misstatement remains significant ( $p < 0.001$ , one-tailed). Taken together, after the covariate test, the observed effect on the liability judgment is the result of the differences in auditors' evaluations of misstatement types and auditing knowledge rather than their demographic differences.

### ***Processing Model of Liability Assessment***

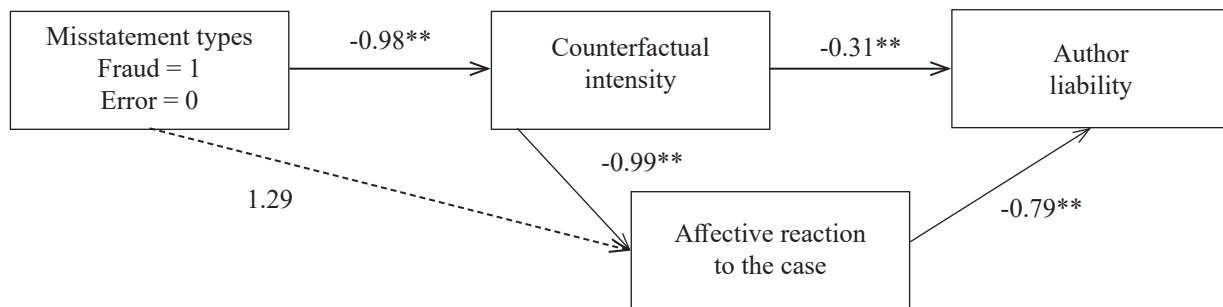
The underlying theories used in this study suggest the factors mediating the relationship between the misstatement type and an auditor's liability. Counterfactual reasoning and the culpable control model yield two proposed mediating variables: counterfactual intensity and affective responses toward the case. To further investigate how the mediating roles of counterfactual intensity and affective responses in liability assessment differ between evaluators with high and low auditing knowledge, the PROCESS macro was employed. The PROCESS macro is a versatile modeling tool that is the add-in function for SPSS (Hayes, 2012). The PROCESS macro integrates many

functions of existing statistical tools for mediation, moderation, and the conditional process model (i.e., moderated mediation and mediated moderation) analysis. Figure 2 illustrates the path of each group of evaluators. Panel A of Figure 2 shows the path model of evaluators with high auditing knowledge. All the paths are significant except for misstatement types to an affective reaction. This result suggests that for evaluators with high auditing knowledge, the impact of the affective reaction to a liability judgment occurs through counterfactual thoughts.

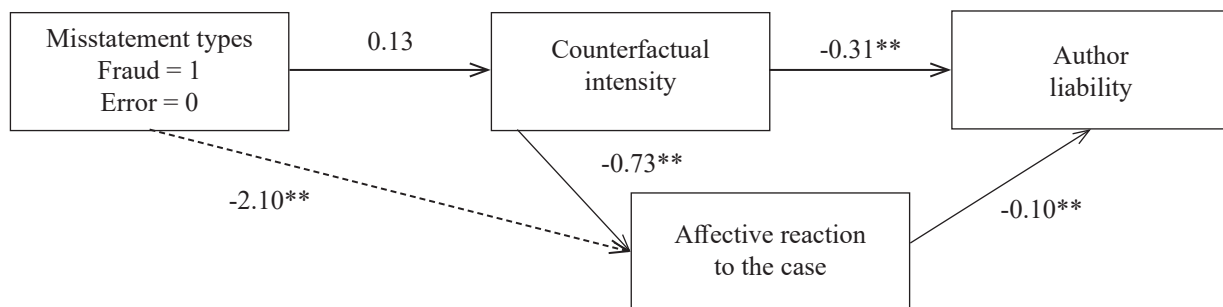
Misstatements have a significant negative relationship to counterfactual intensity. This result indicates that counterfactual intensity in the case

of fraud is lower than in the case of error. These highly knowledgeable evaluators have developed the counterfactual thought that even other auditors could not possibly detect the fraud. Therefore, the responsibility might partly be attributed to some other external factors (Weiner, 1995) and not entirely to the auditors, as in the error case. A significant negative relationship exists between counterfactual intensity and affective reaction, suggesting that thinking other auditors could not possibly detect the fraud generates more positive feelings toward the auditor, thereby decreasing an auditor’s liability. The negative relationship between the affective reaction and the assessment of auditor liability is shown in the final path.

**Panel A:** High auditing knowledge



**Panel B:** Low auditing knowledge



\*\* $p < 0.05$ , one-tailed

**Misstatement types:** misstatements due to fraud and misstatements due to error.

**Auditor liability:** the participant’s response on a scale from 0 to 10 regarding the extent to which the auditors are liable for the misstatement.

**Counterfactual intensity:** the participant’s response on a scale from 0 to 10 regarding the extent to which the participant believes other auditors would have acted differently in detecting the misstatement.

**Affective reaction to the case:** calculated by subtracting participants’ feelings toward the plaintiff (-10 = Very negative, and 10 = Very positive) from their feelings toward the alleged auditor (-10 = Very negative, and 10 = Very positive), so the overall feelings toward the case are on the scale of -20 = pro plaintiff, 0 = neutral, and 20 = pro auditor.

**Figure 2**

The Mediation Role of Counterfactual Intensity and Affective Reaction on Auditor’s Liability Assessment

Panel B of Figure 2 depicts the mediation analysis result of the low-auditing-knowledge group. Less knowledgeable evaluators tend to directly associate their feelings with the event of the misstatement without considering any other external factor possibly affecting the audit. The path with a significant relationship is the path between the misstatement and the affective reaction. This result is evidence of the direct negative impact of the misstatement on the affective reaction to the case. When a misstatement occurs due to fraud, the negative affective reaction for the auditor is higher than in the case of error, thus causing the liability judgment to be significantly higher. Although the directional relationship between misstatement types and counterfactual intensity is as predicted (i.e., a fraud misstatement generates more counterfactual thought than an error misstatement), the relationship is weaker and not significant when compared to the relationship in the case of highly knowledgeable participants. Despite its nonsignificant statistics, this result demonstrates the differences in the liability judgments of undetected misstatements caused by fraud and error.

## Conclusion and Limitations

This study investigated whether different types of misstatements are related to differences in liability judgment. The results provided support for the two primary hypotheses: evaluators with high auditing knowledge (low auditing knowledge) assess a higher (lower) auditor liability when the misstatement relates to error rather than fraud. Additionally, the test on the mediating effect of counterfactual intensity and affective reaction demonstrated that these two groups of evaluators have different cognitive processes when evaluating an auditor's liability. Affective reaction strengthened through counterfactual thinking is evidenced by highly knowledgeable evaluators. Therefore, for less knowledgeable evaluators, counterfactual thinking appears to have less impact on affective reaction. The potential explanation is that less knowledgeable evaluators might have limited thoughts about a certain characteristic of fraud and error to make the counterfactual comparison. Thus, these evaluators tend to assess liability directly through their affective reactions. This is consistent with the argument in Brown and Solomon's (1991) study that different knowledge and experience frame

the different ways people think about the plausible causes of the outcome.

The results of this study make several contributions to the literature. First, because academics and practitioners have suggested that evaluators with different levels of audit knowledge reach different liability judgments (Reffett et al., 2012), this study adds another aspect to the body of knowledge in the literature. In this aspect, the differences in the levels of auditing knowledge of evaluators could cause different liability judgments. Specifically, the evaluator's decision is influenced not only by the severity of the misstatement but also by the differences in types of misstatements. As noted by Donelson et al. (2014), legal actions against auditors are generally settled rather than taken to court, and the result from a nonjury setting yields a more general opinion about an auditor's liability. This opinion is also important because it can impose reputational harm in addition to any legal settlements. Thus, this study provides evidence for auditor liability based on publicly available information that can be generalized beyond the trial setting.

Second, although most studies in the literature examine the effects of differences in the severity of outcomes (Kadous, 2000), audit quality (Reffett, 2010; Backof, 2015; Backof et al., 2014), and types of evaluators (Reffett et al., 2012, Grenier et al., 2015) on auditor negligence, this study provides a preliminary understanding of the difference in auditor liability due to the difference between fraud and error misstatements, given the same outcome severity. The findings can also provide some insights concerning the issue of auditor's responsibility relating to fraud in an audit of financial statements. Results inform the standard-setter and SEC (especially in the Western countries, where auditor negligence decisions are judged by jurors, who have limited auditing knowledge) that auditor liability regarding undetected misstatement due to error and fraud is interpreted differently when evaluated by evaluators with different levels of auditing knowledge. The recommendations by Palmrose (2006) of having a panel of jurors and an experienced auditor might be optimal because experienced auditors have been trained to exercise their professional skepticism during an audit; thus, the steps of their logical thinking toward the case of fraud and error is expected to be different from those of evaluators who have not been trained to audit financial statements. Although it is clear

that the results from two groups of evaluators should yield different results, this paper provides “empirical evidence” that responds to Brasel et al.'s (2016) work, which stated that it remains a worthwhile issue to investigate further whether auditor liability differs for fraud-related and error-related misstatements. The results from this study suggest that one of the factors that could cause liability judgments regarding fraud to differ from those regarding error is the different levels of auditing knowledge among evaluators.

Although the findings of this study can add another aspect to auditor liability, this study is not without limitations. The typical issue associated with experimental research is the use of students as proxies to assess an auditor's liability, in which the deliberation process may be different from that of actual judges. However, several previous studies have used undergraduate students to represent jury-eligible individuals (Kadous & Mercer, 2012; Peecher & Piercey, 2008; Reffett, 2010; Backof et al., 2014) because the study from Bornstein (1999) particularly noted that verdicts provided by student participants do not differ significantly from verdicts provided by more diverse groups of jury-eligible adults. Thus, consistent with recent litigation research, students can be used as mock jurors.

The objective of this study is to address how differences in auditing knowledge contribute to differences in liability judgments regarding misstatements due to fraud and error. Therefore, sophisticated participants are not required, according to Libby et al. (2002), who discovered this fact in relation to the achievement of a theory-testing objective. The use of accounting and nonaccounting students in their last year of schooling should adequately capture the directional differences between these groups of evaluators. Future research may also test whether the results still hold with professional auditors and investors.

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