How Do Personal Trait and Control Environment Risk Jointly Affect Novice Auditors' Skeptical Attitude and Action?

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ABSTRACT
This study jointly examines the effect of client-side risk factors and auditors' individual characteristics on novice auditors' skeptical attitude and action. Surprisingly, we find that novice auditors' skeptical actions are solely linked to their accounting or audit-related work experience, rather than their skeptical attitude or individual trait skepticism; however, situational factors, such as client control environment risk cues, interact with auditors' trait skepticism to shape their skeptical attitude. Specifically, we document that novice auditors with low trait skepticism are strongly influenced by the client's control environment risk, whereas those with high trait skepticism are not sensitive to this risk factor. Additionally, we observe that the perceived reasonableness of management's justification fully mediates the effect of trait skepticism on novice auditors' skeptical attitude. Our study adds to the literature of professional skepticism by highlighting the importance of controlling for the effects of personal characteristics and has important implications for both audit practice and accounting education.

Keywords: Novice auditors, professional skepticism, control risk, trait skepticism
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1. Introduction

Professional skepticism is one of the most critical concepts in auditing theory and practice. Using experienced auditors from accounting firms, prior studies identify several factors that influence professional skepticism, including partner communications and emphasis (e.g., Carpenter and Reimers 2013; Stevens, Moroney, and Webster 2019), auditor-client relationship and interactions (e.g., Bauer 2015), auditors' individual characteristics (e.g., Verwey and Asare 2022), and task-related risk and approaches (e.g., Phang and Fargher 2019). In this study, we focus on one under-researched group, novice auditors, who have acquired theoretical knowledge from university training but have no practical audit experience (Kim and Trotman 2015). It is important to discuss how to enhance the professional skepticism of less experienced auditors because simply instructing these auditors to employ greater professional skepticism is unlikely to be effective (Peecher, Piercey, Rich, and Tubbs 2010), and novice auditors exhibit different professional skepticism compared to those experienced auditors (Cross, Moroney, and Phang 2023). While Kim and Trotman (2015) suggest that novice auditors are perceived to lack professional skepticism, Robertson (2010) find that student auditors are more likely to propose adjustments and less likely to accept the client's requests than professionals.

Professional skepticism is a multidimensional construct, and in this study, we examine both skeptical attitude and skeptical action (Hurtt, Brown-Liburd, Earley, and Krishnamoorthy 2013; Brazel, Leiby, and Schaefer 2024). Building on the framework proposed by Nelson (2009), we examine how client-side risk and auditors' individual trait skepticism jointly affect novice auditors' skeptical attitude and action. Trait skepticism, as a non-knowledge characteristic, has received considerable attention (e.g., Quadackers, Groot, and Wright 2014; Cohen, Dalton, and Harp 2017; Verwey and Asare 2022; Bhaskar, Majors, and Vitalis 2023). However, the relationship between trait skepticism and professional skepticism remains unclear. While Khan and Oczkowski (2021) find that student often demonstrate a positive relationship between trait skepticism and skeptical judgement, Quadackers et al. (2014) note that trait skepticism has low predictability of auditors' skeptical judgments and decisions, especially in a high-risk setting. Prior studies also suggest that less skeptical auditors are strongly influenced by their prior experience with clients (Popova 2012; Khan and Oczkowski 2021) while highly skeptical auditors are not sensitive to and reply less on situational factors (Das and Teng 2004; Hardies, Janssen, Vanstraelen, and Zehms 2024). Therefore, we predict a differential effect of a client's control environment risk on skeptical attitude and skeptical action depending on novice auditors' trait skepticism.

To test our hypotheses, we employ a 2 (Control Environment Risk) x 2 (Trait Skepticism) between-subject experimental design using accounting students as a proxy for novice auditors. The control environment risk is manipulated between subjects, and their trait skepticism is measured using the scale developed by Hurtt (2010). By modifying a case from one leading accounting firm, we measure auditors' skeptical attitude in a particular context, as suggested by Kluemper, Little, and DeGroot (2009) and Robinson, Curtis, and Robertson (2018). Next, we measure their skeptical action, independent of their technical skills and experience.

We find that surprisingly, novice auditors' skeptical action is not associated with their skeptical attitude nor individual trait skepticism. Instead, skeptical action is solely predicted by the work experience in accounting and audit related areas. We also find that for novice auditors with high trait skepticism, their skeptical attitude is not influenced by control environment risk, while the skeptical attitude of novice auditors with low trait skepticism differs significantly when the client control environment risk is high relative to when it is low. In addition, we note that the

perceived reasonableness of management's justification fully mediates the effect of trait skepticism on novice auditors' skeptical attitude.

Our study has several practical and theoretical contributions. It adds to the literature of professional skepticism by examining collectively both client-side risk factors and auditor's individual characteristics. The results highlight the importance of controlling for the effects of personal characteristics when assessing auditors' professional skepticism. We also find that auditors' perceived reasonableness of management's justification fully mediates the effect of trait skepticism on skeptical attitude. This extends the framework of professional skepticism proposed by Nelson (2009) and Nolder and Kadous (2018) by proving an initial test of important links in the framework and examining the interactive effects of other situational factors that are client or task specific. In addition, we propose another way to measure novice auditors' skeptical attitude and action based on the mindset-and-attitude dual conceptualization proposed by Nolder and Kadous (2018). This is independent of auditors' technical skills and experience, and it can be measured within a specific context. Furthermore, this study has important implications for audit practice. The factors that could potentially affect auditors' professional skepticism can be threats to, or equivalently opportunities for, professional skepticism management. By examining auditors' individual personality trait in conjunction with the client-side risk factors, this study highlights the importance of considering risks from both sides. One implication to auditor firms is that they could customize training interventions based on individual characteristics (Hardies et al. 2024). For example, they could use high-risk scenarios to heighten the alertness of auditors with low trait skepticism, while auditors with high trait skepticism would be less affected by these situational factors. This study also has important implications for accounting education, underscoring the possibility of tailored education to foster a robust professional skepticism mindset, especially of Generation Z accounting students (Hilda, Chariri, and Raharja 2024).

The remainder of this study proceeds as follows. We first review the relevant literature and develop our hypotheses. Then, we describe the research method followed by the results. Last, we discuss the implications and limitations of our study.

2. Literature review and hypothesis development

2.1 Trait skepticism and professional skepticism

The Public Company Accounting Oversight Board (PCAOB) defines auditor professional skepticism as ‘‘an attitude that includes a questioning mind and a critical assessment of audit evidence. The auditor uses the knowledge, skill, and ability called for by the profession of public accounting to diligently perform, in good faith and with integrity, the gathering and objective evaluation of evidence’’ (AS 1015: Due Professional Care in the Performance of Work). Nelson (2009) proposes a theoretical model of auditor skepticism determinants, including auditor traits, knowledge, and incentives. Among "non-knowledge attributes of the auditor that can affect the auditor's PS" (professional skepticism) (Nelson 2009, p. 8), trait skepticism has received considerable attention and has been primarily measured using the scale developed by Hurtt (2010) (e.g., Quadackers et al. 2014; Cohen et al. 2017; Verwey and Asare 2022; Bhaskar et al. 2023). Hurtt (2010, p. 150) defines professional skepticism as a multi-dimensional individual characteristic, which "can be both a trait (a relatively stable, enduring aspect of an individual) and also a state (a temporary condition aroused by situational variables)". The scale designed to *ex ante* measure individuals' trait professional skepticism is composed of six different dimensions: (1) questioning mind, (2) suspension of judgment, (3) search for knowledge, (4) interpersonal understanding, (5) autonomy, and (6) self-esteem. While trait skepticism is a relatively stable

innate characteristics of auditors and can be stable over time and less subject to changes (Robinson et al. 2018), skeptical judgements or actions can be more malleable and depend on situational factors (Steyer, Schmitt, and Eid 1999). Prior studies yield mixed results on the association between trait skepticism and skeptical judgment or actions (Khan and Oczkowski 2021). For example, Eutsler, Norris, and Trompeter (2018) find that experimental subjects with higher trait skepticism are more likely to identify internal control weakness and demand more intensive follow-up with client management. However, Carpenter and Reimers (2013) fail to find any explanatory power of trait skepticism on auditors' skeptical judgments and actions.

In addition, several studies suggest that professional experience is another critical factor affecting auditors' professional skepticism. Nelson (2009) argues that experienced auditors tend to have more knowledge of complex professional standards and are more capable of identifying material misstatements. Novice auditors tend to display a significantly different level of professional skepticism compared to those experienced auditors (Cross et al. 2023). For example, Payne and Ramsay (2005) and Grenier (2017) find that senior auditors with experience exhibit less skepticism compared to staff auditors. Robertson (2010) report that student auditors are more likely to propose adjustments and less likely to accept the client's requests than professionals. In contrast, Kim and Trotman (2015) suggest that novice auditors are perceived to lack professional skepticism, and these auditors begin to demonstrate some level of professional skepticism after one to two year(s) of audit experience. Using systematic review and meta-analysis, Khan and Oczkowski (2021) find that student samples often demonstrate a positive trait-state skepticism relationship, compared to the practitioner samples, suggesting that student auditors tend to apply professional skepticism in a manner that is unhindered by professional experience or pressures.

Recently, Nolder and Kadous (2018) develop a dual conceptualization of professional skepticism as both a mindset and an attitude, which provides theory-based insights into how professional skepticism can be measured in a given situation. Prior studies tend to assess skeptical judgment using experienced auditors where analytical procedural tasks are performed. In this study, we focus on novice auditors who exercise their professional skepticism in a particular context. Specifically, we measure novice auditors' skeptical attitude and action independent of their technical skills and experience. We formally state our first hypothesis below:

H1. Novice auditors' skeptical attitude is significantly and positively associated with their trait skepticism, leading to higher likelihood of skeptical action.

2.2 Control environment risk

Situational factors on the client side play an important role in professional skepticism. For example, Bauer (2015) finds that auditors tend to agree more with the client's preferred accounting treatment when they identify more strongly with their clients, unless the salience of their professional identity is heightened. Phang and Fargher (2019) provide experimental evidence that professional skepticism is associated with control environment risk. Stevens et al. (2019) find that partner style and team identity salience affect professional skeptical judgement by auditors.

In this study, we investigate the interaction of trait skepticism and client's control environment risk on novice auditors' skeptical attitude and action. Based on prior studies, we propose that the situational factors are more influential on novice auditors with low trait skepticism. Eutsler et al. (2018) note that friendly social interaction with clients presents a threat to professional skeptical judgment, especially for auditors with low trait skepticism. Recently, Donnelly, Kaplan, and Vinson (2021) find that auditors' judgment is typically in line with their

trait skepticism, but only when auditors are not ego depleted. Further, Bhaskar et al. (2023) note that auditors with low trait skepticism challenge managers less in negotiations when depleted versus nondepleted, while high skeptic auditors challenge more when depleted.

Psychological research also suggests that cognitive styles, including skepticism, can influence information processing and perception of the environment. For example, Pennycook and Rand (2019) find that subjects with higher cognitive reflection, which is a component of critical thinking associated with skepticism, tend to be less influenced by situational factors. In an auditing setting, Popova (2012) find that less-skeptical participants are strongly influenced by their prior experience with their clients. It is likely that auditors possessing higher trait skepticism are not sensitive to situational factors (Das and Teng 2004). This is because auditors with high skeptical disposition are prompted to react strongly regardless of the control environment risk. In contrast, auditors with low trait skepticism are more likely to be influenced by situational factors. Only when prompted to the signs of higher control environment risk, low skeptic auditors are likely to be alert. In the absence of such risk factors, low skeptic auditors may not exhibit heightened professional skepticism (Khan and Oczkowski 2021). In summary, we formally state our second hypothesis as follows:

H2a. Novice auditors with high trait skepticism exhibit similar skeptical attitude and action regardless of the client's control environment risk.

H2b. Novice auditors with low trait skepticism exhibit significantly higher skeptical attitude and action when the client's control environment risk is high relative to when it is low.

2.3 Perceptions of management

Social psychology literature suggests that skeptical attitude is influenced by individuals' belief system and attitudes toward authority and tradition (Milgram 1974). In the auditing setting, skeptical attitude can be influenced by beliefs and feelings about the client's integrity, or trust in management. The decision to trust a client's management should be an ethical decision because excessive trust may impair auditors' skepticism and reduce monitoring behaviors (Kerler and Killough 2009). Rose (2007) finds that experienced auditors who have a higher level of trust in others are less likely to attend to evidence of aggressive reporting. King (2002) notes that students assuming auditor roles show a lower level of professional skepticism when there is a higher level of trust-attracting behavior exhibited by client management. Using both professionals and graduate students, Robertson (2010) finds that auditors are more likely to comply with a client's requests as positive affect toward the client grows, especially when the client ingratiates. Further, Popova (2012) notes that perceived trustworthiness fully mediates the effect of previous client service experience on auditors' initial misstatement expectations, such as fraudulent or due to error. However, Kerler and Killough (2009) find that experienced auditors maintain their professional skepticism after satisfying past experiences with the client regardless of their beliefs about the honesty and trustworthiness of the client's management.

To understand the process, we examine whether novice auditors' perceived reasonableness of management's justification or their trust in management affects their skeptical attitude and action. The relationship among trust, distrust, and professional skepticism remains unclear (Olsen and Gold 2018). While some studies use the opposite of trust to measure professional skepticism (e.g., Glover and Prawitt 2014; Quadackers et al. 2014), others rather propose a neutral perspective

where professional skepticism and trust can coexist (e.g., Aschauer, Fink, Moro, van Bakel-Auer, and Warming-Rasmussen 2017). Therefore, we state our research question as follows:

RQ: Does novice auditors' perceived reasonableness of management's justification or their trust in management mediate the effect noted in H2?

3. Research method

3.1 Participants

Upper-division and graduate students who are currently taking or have completed audit course(s) participated in this study. One hundred and two students completed the study via Qualtrics. On average, they have 6.1 years of work experience and 1.8 years of accounting or audit related work experience. 49% (48%) of them are males (females), with an average age of 27 years.

3.2 Experimental design

To test our hypotheses, we employ a 2 (*Control Environment Risk*) x 2 (*Trait Skepticism*) between-subject experimental design. The control environment risk is manipulated between subjects, while their trait skepticism is measured using the scale developed by Hurtt (2010). The participants are randomly assigned to one of the two conditions (High vs. Low Control Environment Risk).

3.3 Experimental procedure

We use and modify a case from one leading accounting firm, which allows us to observe skeptical attitude and action. The case first describes an audit senior manager on the engagement team of a new client, a hypothetical company in the apparel, accessories, and footwear industry. Next, participants are presented with the preliminary assessment of the control environment followed by the dilemma faced by the auditor. After reading the case, participants are asked to make skeptical judgement regarding the auditors in the case and identify the red flags of professional skepticism. The skeptical attitude is measured based on the context (Kluemper et al. 2009; Robinson et al. 2018), independent of their technical skills and experience. Next, participants answer a manipulation-check question to verify their understanding of and attention to the case. They then indicate how much trust they have in the company's management as well as the extent to which they think that the management's justification was reasonable. After the case, participants answer questions independent of the case, and we use the responses to measure their individual trait skepticism (Hurtt 2010). The experiment ends by recording participants' demographics, including gender, age, work experience, standing in college, and career interest.

3.4 Independent Variables

Following Phang and Fargher (2019) and Quadackers et al. (2014), we manipulate the ***Control Environment Risk*** as High vs. Low by presenting the documented assessment of internal control as weak or strong. Participants in the "High Risk" condition are informed that the preliminary assessment of the client's control environment was weak with five major weaknesses identified. In contrast, participants in the "Low Risk" condition are informed that the client's control environment was strong with five strengths identified. We measure individual's ***Trait Skepticism*** using the 30-item scale developed by Hurtt (2010), which has been widely used in various studies (e.g., Quadackers et al. 2014; Cohen et al. 2017; Verwey and Asare 2022; Bhaskar et al. 2023). Participants indicate the extent to which they agree or disagree with the 30 statements describing themselves on a 6-point Likert scale with ending points being labeled as 1 "Completely

Disagree" and 6 "Completely Agree". The trait skepticism scores range from 104 to 174, with a mean of 138.3 and a median of 137.5, similar to those reported in Hurtt (2010).

3.5 Dependent variables

Prior studies have primarily focused on experienced auditors presented with complex cases and analytical tasks, which require high levels of professional technical skills and experience. Instead, we measure the skeptical attitude of novice auditors in a particular context independent of their technical skills and experience, capturing their mindset and attitude (Nolder and Kadous 2018). In addition, we frame the questions in third person, which is expected to reduce the social desirability bias (Fisher 1993). Specifically, we ask the participants: if Alex (the audit senior manager) did NOT insist on searching for the reconciling item, to what extent do you think it was appropriate? They indicate their answers on an 11-point Likert scale with end points being labeled as 0 "Not at all appropriate" and 10 "Extremely appropriate". We reverse the responses so that higher score indicates higher level of skeptical attitude. Next, participants are asked to highlight the phrases or sentences that indicate red flags of professional skepticism in the case. The count of the phrases or sentences highlighted is a proxy for their skeptical action.

3.6 Process variables

To understand the process, we measure both the participants' perceived reasonableness of management's justification and their trust in management. The first question asks: based on the case, to what extent do you think that the management's justification was reasonable? Participants indicate their answers on an 11-point Likert scale with end points being labeled as 0 "Not at all reasonable" and 10 "Extremely reasonable". The second question asks: based on the case, how much trust do you have in XYZ's management? Participants indicate their answers on an 11-point Likert scale with end points being labeled as 0 "Not at all" and 10 "Extremely trust".

4. Results

4.1 Manipulation check

Participants are asked to rate XYZ's internal control system on an 11-point scale with end points being 0 "Extremely Weak" and 10 "Extremely Strong". The difference between High and Low Control Environment Risk is significant ($p<0.01$; $\beta=3.00$, S.D.=1.99 vs. $\beta=5.14$, S.D.=2.10), indicating effective manipulation.

4.2 Test of hypotheses

H1 predicts a main effect of trait skepticism on novice auditors' skeptical attitude and action, while H2 predicts an interaction between trait skepticism and control environment risk. To test our hypotheses, we perform a 2 (Control Environment Risk) x 2 (Trait Skepticism) analysis of variance (ANOVA) on the skeptical attitude and action separately. The untabulated results show that neither the main effect of trait skepticism nor its interaction with control environment risk on skeptical action is significant. In fact, the correlation between skeptical attitude and skeptical action is not significant ($r=0.19$, $p=0.06$, two-tailed). The skeptical action is solely significantly correlated with the participants' experience in accounting and audit related work ($r=0.21$, $p=0.03$, two-tailed). This suggests that professional skepticism in action is likely developed with audit or accounting related experience, and it does not associate with individual trait skepticism nor based on skeptical attitude. Therefore, next we present the results on skeptical attitude only.

Panel A of Table 1 presents the descriptive statistics for novice auditors' skeptical attitude. The results of the ANOVA in Panel B show that both the main effect of trait skepticism ($F(1, 98) = 7.84$, $p=0.01$) and the interaction term ($F(1, 98) = 6.71$, $p=0.01$) are significant. Panel C shows

that for novice auditors with high trait skepticism, their skeptical attitude is not influenced by the control environment risk (p=0.23). In contrast, the skeptical attitude of novice auditors with low trait skepticism differs significantly between High vs. Low Control Risk (p<0.01).

Overall, H1 and H2 are partially supported. Novice auditors' trait skepticism positively and significantly affects their skeptical attitude but not their skeptical action. More importantly, as shown in Figure 1, novice auditors with high trait skepticism exhibit similar skeptical attitude regardless of the client's control environment risk. However, for novice auditors with low trait skepticism, they exhibit significantly higher skeptical attitude when the client's control environment risk is high relative to when it is low.

Table 1

Panel A: Descriptive statistics of skeptical attitude [S.D.]

	Control Environment Risk	
Trait Skepticism	High	Low
Low	8.52	5.71
	[1.41]	[2.40]
	n = 23	n = 28
High	8.61	7.91
	[1.55]	[2.59]
	n = 28	n = 23

Panel B: ANOVA model of skeptical attitude

Source of variation	SS	df	MS	F-stat	*p*-value
Control Environment Risk (CER)	***77.41***	***1***	***77.41***	***18.42***	***<0.01***
Trait Skepticism	***32.94***	***1***	***32.94***	***7.84***	***0.01***
CER × Trait Skepticism	***28.20***	***1***	***28.20***	***6.71***	***0.01***
Error	411.96	98	4.20		

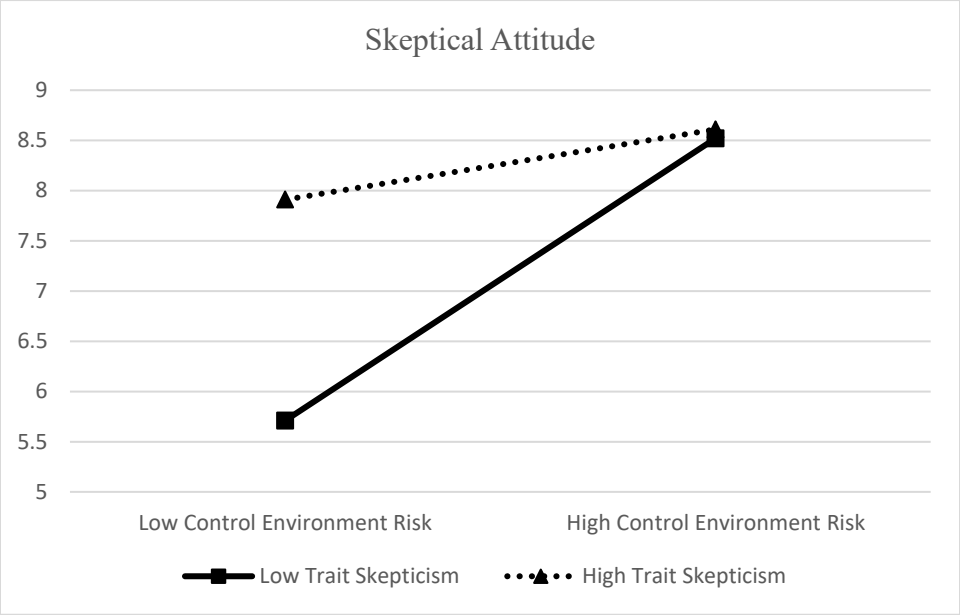
Panel C: Follow-up tests of simple effects

Source of variation	df	*F*-stat	*p*-value
Low vs. High Trait Skepticism given High CER	1	0.02	0.88
Low vs. High Trait Skepticism given Low CER	***1***	***14.52***	***<0.01***
High vs. Low CER given Low Trait Skepticism	***1***	***23.68***	***<0.01***
High vs. Low CER given High Trait Skepticism	1	1.45	0.23

Trait Skepticism is a measured trait variable. Participants are divided into Low versus High Trait Skepticism groups using median split.
Control Environment Risk (CER) is manipulated as either high or low control environment risk.

Figure 1

The Joint Effect of Trait Skepticism and Control Environment Risk on Skeptical Attitude



4.3 Test of the moderated mediation model

We use a moderated mediation model to examine the process because H2 predicts a moderating effect of Control Environment Risk while our research question suggests that this moderating effect first affects the perceived reasonableness of management's justification or their trust in management, which then affects novice auditors' skeptical attitude. The bootstrapping method is used to estimate the direct and indirect effects, which does not require any assumptions about the sampling distribution and can be implemented with relatively small sample sizes (Hayes 2018). The bootstrapping approach repeatedly resamples the dataset to construct confidence intervals for the direct and indirect effects estimated by recreating their empirical distributions.

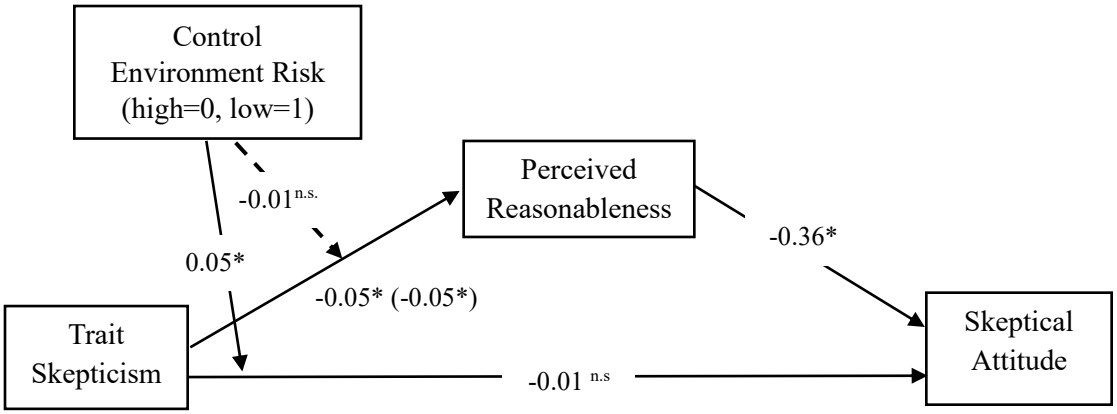
We find that only the perceived reasonableness of management's justification mediates the effect noted in H2. Therefore, below we present the conditional direct and indirect effect of trait skepticism and control environment risk through perceived reasonableness of management's justification on novice auditors' skeptical attitude.

Table 2 shows that the perceived reasonableness of management's justification mediates the effect of trait skepticism on novice auditors' skeptical attitude in both high and low risk conditions (β = 0.02, SE =0.01, 95% CI [0.01, 0.03]; β = 0.02, SE =0.01, 95% CI [0.01, 0.04]). However, the client control environment risk does not moderate this mediating effect as the index of moderated mediation is not significant (β = 0.01, SE =0.01, 95% CI [-0.01, 0.02]). In addition, we note that only the indirect (rather than direct) effect of trait skepticism on skeptical attitude is significant, suggesting that the perceived reasonableness of management's justification ***fully*** mediates the effect of trait skepticism on skeptical attitude. Figure 2 shows the mediated pathway.

We also find that the client control environment risk moderates the direct effect of trait skepticism on skeptical attitude. Thus, when the client's control environment risk is low, there is a significantly positive effect of trait skepticism on skeptical attitude (β = 0.05, SE =0.02, 95% CI [0.01, 0.08]). In contrast, when the client's control environment risk is high, the effect of trait skepticism on skeptical attitude is not significant (β = -0.01, SE =0.02, 95% CI [-0.04, 0.03]).

Figure 2

Mediated Pathway through Perceived Reasonableness of Management's Justification



Note: unstandardized coefficients are reported. Coefficients denoted with n.s. are not significant. Coefficients denoted with * are all significant at the level of 5%. The estimated coefficients reported in the parentheses are for low-risk condition whereas the estimated coefficients reported outside the parentheses are for high-risk condition.

Table 2

Conditional Direct and Indirect Effect of Trait Skepticism and Control Environment Risk through Perceived Reasonableness of Management's Justification (N=102)

Predictor	*B*	*SE*	*t*	*p*	95% CI
Mediator variable model (*perceived reasonableness*): R^2 =0.13, F (3, 98) =4.95, p<0.01					
Constant	9.65	2.68	3.60	<0.01	4.33, 14.97
Trait Skepticism	**-0.05**	**0.02**	**-2.62**	**0.01**	**-0.09, -0.01**
Control Environment Risk (CER)	0.81	3.83	0.21	0.83	-6.78, 8.41
Trait Skepticism × CER	-0.01	0.03	-0.19	0.85	-0.06, 0.05
Dependent variable model (*skeptical attitude*): R^2 =0.38, F (4, 97) =15.05, p<0.01					
Constant	10.48	2.38	4.40	<0.01	5.75, 15.20
Trait Skepticism	-0.01	0.02	-0.41	0.69	-0.04, 0.03
Perceived Reasonableness	**-0.36**	**0.08**	**-4.31**	**<0.01**	**-0.53, -0.20**
Control Environment Risk (CER)	**-9.11**	**3.19**	**-2.85**	**0.01**	**-15.45, -2.77**
Trait Skepticism × CER	**0.05**	**0.02**	**2.31**	**0.02**	**0.01, 0.10**
Conditional direct effects:					
High Control Risk	-0.01	0.02			-0.04, 0.03
Low Control Risk	**0.05**	**0.02**			**0.01, 0.08**
Conditional indirect effects:					
High Control Risk	**0.02**	**0.01**			**0.01, 0.03**
Low Control Risk	**0.02**	**0.01**			**0.01, 0.04**

Index of moderated mediation			
Control Environment Risk (CER)	0.01	0.01	-0.01, 0.02

Notes: indirect effects tested with 5,000 bootstrap resamples. Significant effects at 0.05 level are in bold.

5. Conclusions and discussions

This study jointly examines the effect of client-side risk factors and auditors' individual characteristics on novice auditors' skeptical attitude and action. The study of novice auditors has been a dearth of research as prior studies focus on experienced audit professionals. By modifying an auditing case, we present another way to measure novice auditors' skeptical attitude and action, which is context-based and independent of their technical skills and experience.

We find that surprisingly, novice auditors' skeptical action is solely associated with their accounting or audit related work experience, but not associated with their skeptical attitude or individual trait skepticism. However, situational factors, such as client control environment risk cues, can interact with auditors' trait skepticism to impact their professional attitude. Specifically, we find that novice auditors with low trait skepticism are strongly influenced by the client's control environment risk, while novice auditors possessing high trait skepticism are not sensitive to such risk factor. In addition, the effect of trait skepticism on skeptical attitude is fully mediated through the auditors' perceived reasonableness of management's justification.

Our study contributes to both audit research and practice. It adds to the literature of professional skepticism by highlighting the importance of controlling for the effects of personal characteristics. Furthermore, the mediating role of the perceived reasonableness of management's justification extends the framework proposed by Nelson (2009) and Nolder and Kadous (2018) by proving an initial test of important links in the framework and examining the interactive effects of other situational factors that are client or task specific. In addition, this study proposes another way to measure novice auditors' skeptical attitude and action independent of their technical skills and experience.

Our study has important implications for audit practice. The results show that when the client's control environment risk is high, even novice auditors with low trait skepticism exhibit similar skeptical judgment as those with high trait skepticism. This finding offers critical insights into how audit firms can refine their training programs. Specifically, audit firms should identify threats to the professional skepticism of new auditors and strategically incorporate them into training to strengthen auditors' skepticism. It might be necessary to prime less experienced auditors with more risk cues at the start of an audit engagement, assuming this tactic does not lead to over-auditing or inefficiency of allocating audit resources. This is important as Peecher et al. (2010) note that simply instructing novice auditors to employ greater professional skepticism is unlikely to be effective. In addition, audit firm should note that situational factors or cues could potentially alter the way in which individual personality traits can influence their judgment and decision-making. One implication of particular importance to auditor firms is that they could tailor training interventions based on individual characteristics (Hardies et al. 2024). For example, they can sensitize novice auditors with low trait skepticism using high-risk scenarios to prompt them to be more alert while auditors with high trait skepticism are less influenced by these situational factors. This study also has important implications for accounting education, underscoring the possibility of tailored education to foster a robust professional skepticism mindset, particularly among Generation Z accounting students (Hilda et al. 2024).

Our findings should be interpreted with several limitations, which point to avenues for future research. First, this study does not provide a direct comparison between novice auditors and experienced ones. Instead, we evaluate skeptical attitudes and actions without focusing on specific audit tasks. Future research can apply this approach to assess the professional skepticism of experienced auditors. Second, only one case of audit engagement is used in this study, which involves a direct confrontation from the client. Future studies can examine the joint effect of client-side risk factors and auditors' individual personality traits using different cases and settings. Last, other situational factors, such as ego depletion and audit-client relationship, can also play a role in auditors' skeptical attitude and action. Future research can further examine the joint effect of these situational factors and individual traits on auditors' judgment and decision making. This can be done by embedding these factors in the cases used in the experiments.

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