The Effect of Pressure Sources and Trait Variables on Skeptical Audit Judgments and Actions

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Key Words: Audit Quality; Social Pressure; Trait Skepticism; Skeptical Judgments and Skeptical Actions.

Abstract:

Prior research proposes that auditors' incentives and traits combine to affect the amount of professional skepticism in audit judgment and audit actions. We examine this proposition in an experimental setting by asking Dutch auditors to evaluate a potentially impaired asset amidst pressure to keep it on the books from either the engagement partner (obedience pressure) or former team members (conformity pressure). We also obtained measures of perceived client pressure, commitment (professional and organizational) and trait skepticism. The experimental results show that conformity and obedience pressures are positively associated with skeptical action and client pressure is positively associated with skeptical judgement. We also find that trait skepticism has a positive association with skeptical action. Taken together, our results show that auditors respond to pressure, regardless of source, by increasing the amount of professional skepticism in their judgments and actions. While this finding departs from prior research, it suggests that recent proactive regulatory actions, including labelling professional skepticism as an obligatory topic for permanent education, may be achieving their goals, at least when it comes to auditors' resistance of social pressure.

Key Words: Audit Quality; Social Pressure; Trait Skepticism; Skeptical Judgments and Skeptical Actions.

INTRODUCTION

Recent high-profile enforcement actions by audit regulators around the world raise questions about whether auditors perform the audit function with the appropriate level of professional skepticism (FRC 2017; AFM 2014; PCAOB 2016).[i] These enforcement actions, with regularity, note that the "admitted acts of misconduct include failures to obtain sufficient appropriate audit evidence and failures to exercise sufficient professional skepticism" (FRC 2017, 2019; PCAOB 2019). Prior research suggests that auditors' pre-existing knowledge, traits, and incentives all combine (and potentially trade-off or interact) to affect the amount of professional skepticism in audit judgment and audit actions (Nelson 2009; Hurtt, Brown-Liburd, Earley and Krishnamoorthy 2013; Nolder and Kadous, 2018). Thus, it is important to examine the effect that traits and incentives have on professional skepticism in audit judgments and actions.

The purpose of this paper is to examine how different sources of pressure combine with trait skepticism to affect audit judgment and actions. Specifically, we examine the combined effect of pressure from superiors (i.e., obedience pressure), peers (i.e., conformity pressure), client (i.e., client pressure) as well as commitment (to the organization and profession) and trait skepticism on the level of professional skepticism. In particular, we examine whether these effects manifest in skeptical judgments or actions (Hurtt et al., 2013; Nolder and Kadous, 2018).

Our research is motivated by the (i) increasing number of enforcement actions because of a too low level of professional skepticism, (ii) the increasing role of social interaction in audit decision making, and (iii) the aggressive regulatory actions taken by professional bodies since 2012 aimed at enhancing professional skepticism (e.g., FRC 2012, 2017, 2019; AFM 2014; PCAOB 2019; Ceresney 2016; NBA 2014). With the issuance of International Standard on Quality Management 1 (IAASB 2020), IAASB ordonnated audit firms to implement quality objectives in their quality systems, one of those objectives

being related to exercising professional skepticism.Recently, Flis, Owens, and Partridge (Flis et al., 2022) recently highlighted the importance of professional skepticism – including an inquiring mindset and a critical assessment of audit evidence from the perspective of International Education Standards (IESs). This includes acknowledgement that bias in judgment and decision-making may hinder exercising professional skepticism. On the one hand, auditors interact with peers, superiors and clients during the opinion formulation process. A growing body of research shows that these social interactions can be a source of pressure that, in turn, can lead to dysfunctional behavior in audit and managerial accounting settings (e.g., Chong and Syarifuddin 2010; Davis, DeZoort and Kopp 2006; Lord and DeZoort 2001; DeZoort and Lord 1994). On the other hand, auditors develop commitment to their organizations and profession, through various social channels, that can presumably enhance their professional skepticism (Herda and Martin 2016; Elias 2008, 2006; Hall, Smith and Langfield-Smith 2005; Otley and Pierce 1996). These pressure sources, commitments and trait skepticism, can individually or combined have impact on audit quality (Nelson 2009).

Prior research suggests that obedience and conformity pressures may have a deleterious effect on professional judgments while other incentives like organizational and professional commitment may have an enhancement effect (e.g., DeZoort, Harrison, and Taylor 2006; Davis, DeZoort, and Kopp 2006; Chong and Syarifuddin 2010). However, various regulatory changes and methodological enhancements have occurred since some of these findings and it is important to examine how auditors respond to pressure in these new environments. Further, the relationship between commitment and audit judgments remains largely unresolved (Herda and Martin 2016; Elias 2008, 2006). Examining the effect of trait skepticism is important because basic research suggests that some personality types can resist the pressure to conform (Oliner and Oliner 1998). For instance, research shows that trait skepticism could potentially help auditors resist social pressures (Hurtt 2010; Nelson 2009; McCrae, Costa, and Martin, 2005).

In our experiment, auditors completed a case that manipulated pressure between subjects (conformity pressure versus obedience pressure versus control group). They also indicated the extent to which they felt pressure from the CFO. Commitment (organization and professional) and trait skepticism are measured with the appropriate scales (Hurtt 2010; Rotter 1966, 1967; Mowday, Steers and Porter, 1979; Rest, 1979). We used a task where evidential input raised significant questions about the valuation of an asset but where social pressure sources suggested that the assets' value should not be written down. This setting allows us to examine the effect of our manipulations and measurements on skeptical judgment and actions and to provide some evidence about the descriptive validity of the adapted Nelson (2009) model, which we used as a conceptual framework.

The results show that conformity and obedience pressures are positively associated with skeptical action. On the other hand, client pressure is positively associated with skeptical judgement. We also find that trait skepticism has a positive association with skeptical action. We find no effect for commitment. Taken together, these results suggest that auditors tend to exercise more skeptical judgments as perceived pressure, regardless of source, increases. This evidences a potential change in auditors' evidential behavior over time.

This research contributes to the accounting literature by providing evidence that suggests a positive shift in auditors' response to social influence pressures. The results should be of interest to regulators and firms who have expressed interest in understanding the factors that affect professional skepticism (NBA, 2014, p.11). Second, our results suggest that client pressure has direct effect on judgments while other pressures and trait are associated with actions (Hurtt et al. 2013). This opens avenues for future research into why some pressures directly affect actions. Third, our results suggest a gap between commitment and professional skepticism.

In the next section, we discuss the prior literature and develop our hypotheses. We then present the method and results. We conclude by discussing the implications and limitation of our findings along with suggestions for further research.

LITERATURE REVIEW AND HYPOTHESES

Nelson (2009, 5) provides a descriptive model of the determinants of professional skepticism (PS) in audit performance. Nelson (2009) defines PS as ‘‘indicated by auditor judgments and decisions that reflect a heightened assessment of the risk that an assertion is incorrect, conditional on the information available to the auditor.’’ The model essentially highlights that auditors’ pre-existing knowledge, traits, and incentives all combine (and potentially trade-off or interact) to affect the amount of PS in audit judgment and audit actions. Nolder and Kadous (2018) have recently conceptualized auditors’ PS as comprising a skeptical mindset and a skeptical attitude. In their conceptualization, the mindset component captures the idea that PS is reflected in particular ways of thinking or processing information, such as being open, objective, and critical in thinking about audit evidence and related matters. The attitude component of PS is reflected in auditors' evaluations, both cognitive and affective, of the evidence and of managements' assertions.

The Nolder and Kadous (2018) model is therefore broader than Nelson (2009) by accommodating feelings about evidence and also decouples PS from judments and actions. However, given our interest in judgment and actions, we designed our tasks and developed the research hypotheses using the Nelson (2009) model. Accordingly, we adapt Nelson’s model, as shown in Figure 1, to use as the conceptual framework in this study. As with Nelson (2009), evidential input triggers the judgment process. The processing of the evidential input results in an audit judgment, which, after further processing, translates into action. Nelson (2009) suggests that judgments and actions are influenced by traits, incentives, and

knowledge but does not specify the specific incentives or traits and their effects on PS. In our model, we focus on the effect of pressures from superiors, peers and clients as well as the effect of commitment and trait skepticism.

Insert Figure 1

Obedience Pressure

Obedience pressure arises when superiors put pressure on subordinates to follow their instructions (Brehm and Kassin 1990). Milgram (1963, 1974) suggests that individuals under obedience pressure transition from an autonomous state to an agentic state if they believe the superior wields legitimate authority who will take responsibility for any outcomes. In an agentic state, subordinates are hypothesized to feel less responsible for their actions and therefore yield to the superior pressure even if it traverses their own beliefs and values. Such legitimate authority exists when superiors are in a position to exert power in terms of the subordinates' promotion and remuneration decisions (Milgram 1963, 1965; Milgram, 1974; DeZoort and Lord 1994; French and Raven 1959; Peecher, Piercey, Rich, and Tubbs 2010). While obedience pressure may lead to positive outcomes, the major concern is when its use results in negative outcomes. For example, a superior auditor prioritizes the attainment of the time budget, even when underlying conditions suggest otherwise, or prioritizes the client's preferences over the subordinate's independent judgments (Peecher et al. 2010). Furthermore, pressure, resulting from power-related issues, such as goal framing, has a negative connotation in terms of the subordinate's well-being and well-functioning (Andiola, Bedard, and Westermann 2019).

In accounting, auditors, facing simulated obedience pressure, are more likely to violate professional norms or standards and are more willing to sign-off an account balance that was materially misstated (DeZoort and Lord 1994; Lord and DeZoort 2001). Davis et al. (2006) report that management accountants faced with obedience pressure from superiors are likely to create slack in violation of corporate policy. Brink, Tang and Yang (2016) found that Chinese auditors' fair value judgments are not influenced by the estimate's source when they felt obedience pressure. However, when the same advice is received from a peer, the fair value judgments are impacted by the estimate's source. More recently, Tsunogay, Sugahara, and Chand (2017) have replicated the findings of DeZoort and Lord (1994). Lastly, Bishop, DeZoort and Hermanson (2017) report that CFOs are vulnerable to social pressure from their CEOs even though the CFOs do not perceive pressure to act inappropriately. This suggests that social pressure effects can operate unconsciously. Thus, the empirical accounting literature shows that auditors, management accountants and CFOs are susceptible to inappropriate obedience pressure.

In recent years, regulators across the world have emplaced mechanisms aimed at helping auditors to cope with obedience pressure (e.g., International Standard on Quality Management 1, par. A24 (IAASB, 2020)). For instance, since 2012, the regulator in the Netherlands has required all auditors to take a 1.5 day training course, which includes exposure to the Nelson (2009) model as a first step to increased awareness to PS. In 2015, a working group, called the "the future of the audit profession", issued a report that contains 53 measures to be taken by audit firm in order to restore confidence in the audit profession.

Thus, it is important to examine whether the emplacement of these countervailing pressure have mitigated auditors' vulnerability to obedience pressure. On the premise that recent regulatory action has been effective, we propose the following hypotheses:

H1a: There is a positive association between obedience pressure and skeptical judgments.

H1b:There is a positive association between obedience pressure and skeptical actions.

Conformity Pressure

Conformity pressure is the pressure experienced by an individual who deviates from their peers' behavior (Brehm and Kassin 1990). Conformity pressure differs from obedience pressure in that it does not involve hierarchical pressures. Rather, it is driven by horizontal pressure. People are susceptible to conformity pressure because of the fear of the negative consequences of appearing deviant, including standing out for attention.

Depending on the circumstances, conformity pressure can affect audit quality. If others are acting in consonant with professional standards then conformity assures consistency in delivering high quality audit service. On the one hand, negative effects can occur if such conformity occurs within a culture that encourages peers to engage in dysfunctional behavior. Further, conformity may lead to groupthink and stifle innovation in audit judgment. However, firms may enhance the positive effects of conformity pressure by providing a uniform audit methodology, design of a uniform documentation infrastructure, and providing sufficient tools and templates (decision aids). From this perspective, conformity pressure is expected to have a positive impact on audit quality.

While basic psychology studies have found evidence of deleterious conformity pressure (e.g., Brehm and Kassin 1990), there appears to be less evidence of this effect in experimental studies in accounting (Lord and DeZoort 2001; Brink, Tang and Yang 2016). Further, quality control processes at the profession and firm level have been developed to ameliorate the dysfunctional effect of conformity pressure. We propose the following conformity-pressure-related hypotheses:

Met opmerkingen [BJv1]: Do they provide a reason why? And should we anticipate these reasons in our hypothesis development?

H2a: There is a positive association between conformity pressure and skeptical judgments.

H2b: There is a positive association between conformity pressure and skeptical actions.

Client pressure

Clients exert pressure on auditors to reduce audit effort and fees (Nelson 2009). Competitive pressures and the long-term relationship between the auditor and clients make auditors vulnerable to client pressure. Bazerman, Moore, Tetlock, and Tanlu (2006) argue that the auditor's judgement processes are biased because of incentives related to benefits for the firm and their personal careers. Bamber and Iyer (2007) report that auditors who identify with their client are more likely to acquiesce with the client-preferred position. Koch and Salterio (2017) report that auditors with more client affinity and higher client pressure suggest lower adjustments to client's aggressive accounting. Thus, there is evidence that client pressure has a negative impact on audit quality.

In response to client risk, professional standards have proposed the emplacement of improved quality control processes, including the assessment of an overall client risk profile for each audit client. Further, policymakers at audit firms are expected to design and implement specific quality measures for high-risk clients, like engagement-directed quality reviews [ii]. If these processes have been successfully implemented, we will expect that more client pressure will trigger more skeptical behavior.[iii] We propose the following client-pressure-related hypotheses:

H3a: There is a positive association between client pressure and skeptical judgments.

H3b: There is a positive association between client pressure and skeptical actions.

Commitment Pressure and Judgments

Commitment refers to the totality of internalized normative pressures to act in a way that meets the interest of a referent group to which a decision maker belongs (Wiener 1982). It is an important construct because it relates to the acceptance of the group's expectations and values as guides to behavior

(Wiener 1982). Ceteris paribus, as commitment increases so does the decision maker make commitment-congruent decisions. Because auditors work with firms and belong to the accounting profession, they face internalized normative pressures from both groups.

Professional commitment

Professional commitment refers to the extent to which an individual identifies with a profession (Otley and Pierce 1996). Persons who have high professional commitment have have a strong belief and accept the profession's goals and values (Lord and DeZoort 2001). Ceteris paribus, auditors who are more committed to the profession will be expected to stay clear of actions that hurt the profession's reputation. Thus, professional commitment is expected to have a positive impact on judgment and decisions. A few studies report that there is a positive association between professional commitment and auditors' attitude toward observing rules (Jeffrey and Weatherholt 1996; Jeffrey, Weatherholt, and Lo 1996) and intention to report a questionable act (Taylor and Curtis 2010). However, prior studies have not consistently found this positive effect of professional commitment (Otley and Pierce 1996; Lord and DeZoort 2001; Otley and Merchant, 1990). In a relatively recent study, auditor experience has been found to moderate the negative relationship between professional commitment and acceptance of underreporting time, such that professional commitment is associated with underreporting acceptance only among less experienced auditors (Herda and Martin 2016). Drawing on the underlying commitment-judgment linkage, we propose the following hypotheses:

H4a: There is a positive association between professional commitment and skeptical judgments.

H4b: There is a positive association between professional commitment and skeptical actions.

Organizational commitment

Lord and DeZoort (2001, 219) define organizational commitment as: "the strength of an individual's identification with and involvement in a particular organization." Individuals with high organizational commitment have a stromg belief and acceptance of the organizational values and and are willing to exert effort on behalf of the organization (Mowday et al. 1979; Lord and DeZoort, 2001; Kosmala and Herrbach 2006). It is commonly assumed that organizational goals and values are positive. Blix, Chui, Pike, and Robinson (2021) report that - based on goal setting theories – supportive and goal-focused performance evaluations lead to higher self-esteem (as an element of professional skepticism), that also drives a search for evidence and audit quality. Thus, organizational commitment has a beneficial impact on the individual. However, organization's values may tilt more towards commercialization than professionalization potentially raising issues with the organization's goals vis-à-vis the profession's or public interest (Kosmala and Herrbach 2006, 1404; Cooper et al. 1996).

Empirical research shows that organizational commitment can be associated with deleterious behavior. For instance, organizational commitment has been found to be associated with audit quality reduction behaviors, such as premature sign offs (Otley and Pierce 1996). Further, even when the positive effects of organizational commitments are present, they can be dissipated by social pressures (Lord and DeZoort 2001). Based on the preceding discussion, we propose the following hypotheses:

H5a: There is a positive association between organizational commitment and skeptical judgments.
H5b: There is a positive association between organizational commitment and skeptical actions.

Traits Skepticism

Trait skepticism reflects a person's predisposition to, among others, suspend judgment, question propositions, and search for knowledge (Hurtt 2010, Nelson 2009, 8; Nolder and Kadous 2018). Traits can be considered as 'internal drivers' of a skeptical mindset and attitude. Such internal personal drivers are

not only likely to affect judgments but also actions. Trait skepticism includes a more critical mindset and attitude (Hurtt et al. 2013; Quadackers et al. 2014). Trait skepticism may also play a role in dealing with situational pressures. We propose a positive association between trait skepticism and professional skepticism (Nelson 2009; Quadackers, Groot and Wright 2014). This results in the following hypotheses:

H6a: There is a positive association between trait skepticism and skeptical judgments.

H6b: There is a positive association between trait skepticism and skeptical actions

METHOD

Case Overview

We adapted the case used by Lord and DeZoort (2001). Thus, participants were asked to assume the role of a senior who had been recently assigned to a new client. They were to assume that they were replacing the senior who had served the client for several years but had been recently assigned other responsibilities. They were told that they had proposed an adjustment to write-off $2,500,000 of assets due to questions relating to their existence and valuation. Participants also received information indicating that the client's CFO strongly disagreed with the auditor's position and had suggested that the proper treatment was to depreciate the asset over the next four years using a straight-line method. The CFO had also threatened to change auditors over the disagreement. Participants' task was to evaluate all evidence available to them and to specify the amount that they would sign-off as the final net equipment balance for the assets, which had been originally recorded as "assets in process."

After completing the task, participants responded to manipulation checks, indicated the extent to which they felt pressure from the CFO, and provided demographic information. They also completed the commitment (Mowday, Steers and Porter 1979) scale to measure their organizational and professional commitment. Finally, they completed trait skepticism (Hurtt 2010), DIT (Rest 1979), and Rotter scales (Rotter 1966; 1967), which served as measures of their traits.[iv]

Data collection

All responses were gathered using the Qualtrics platform. With the approval of the participating firms' partners, graduate students enrolled in an advanced auditing class sought the participation of eight experienced auditors in their offices to participate in the experiment. We sent the targeted respondents an e-mail containing a link to the case, which resided on the Qualtrics platform. Both the students and the auditors, who participated in the experiment, did so voluntary and their participation and experimental procedures were approved by the University's Ethics Committee. There were three versions of the case corresponding to our manipulations of pressure (partner pressure vs peer pressure vs no pressure) and the program randomly assigned these case versions to the individual respondents.

The initial screen of the case indicated that the purpose of the case was to understand how auditors made judgments in practice. As such, they were only required to exercise the judgment that they will in practice if they encountered the facts described in the case related to an issue on which the auditor's judgment was needed. They then saw case information, followed by questions on the dependent variables, manipulation checks, demographic questions and traits scales respectively.

Dependent variables

We had two dependent variables corresponding to judgment and action. The former was elicited by asking participants whether they agreed with the valuation as proposed by the CFO (this basically is a yes/no option as a dichotomous variable). The latter was measured by a dichotomous variable on the audit opinion (unqualified versus qualified report).

Manipulations of pressure

Participants in the conformity pressure group were told that the predecessor senior suggested that there should be no audit adjustment because there had been none the prior year. Those in the obedience

pressure group were told that the engagement partner, while agreeing with the documented conclusions about the lack of support for the assets, instructed them to go along with the CFO's demand to avoid client retention issues. Participants in the control group received no information on pressure. To enhance external validity, we asked participants to report their judgments and actions to the engagement partner and seeded a disputed amount that was material, based on both the accounting standards and firms' practices. Thus, judgments and decisions are unlikely to be affected by materiality considerations.

Independent and control variables:

Pressure was manipulated between-subjects as described above. Participants also indicated the extent to which they felt pressured by the client on a 5-point likert scale (1= no pressure to 5 = lot of client pressure). We also elicited measures of organizational and professional commitment using the commitment scales (Mowday, Steers and Porter 1979). Finally, trait skepticism was measured by the Hurtt scale (Hurtt 2010).[v] Participants then provided information about their gender, age, licensing status, experience in auditing, rank and audit firm.

Participants

Participants were 421 public auditors practicing in the Netherlands.[vi] They had a mean (standard deviation) of 122.55 (101.91) months of audit experiene. About 48 percent were from Big-4 firms. Participants were predominantly managers with about 17 percent being partners.[vii]

RESULTS

Descriptive statistics

Table 1 presents the descriptive statistics of our study. Across participants, the mean (standard deviation) pressure felt from the client is 3.61 (1.05). Thus, on average the participants felt a high level of pressure, consistent with the client's CFO position and threats to change auditors. The mean (standard

deviation) professional skepticism score on the Hurtt scale is 131.38 (13.42), which is higher than the theoretical midpoint of the scale and comparable to the professional auditors' mean score of 138.6 (12.6) and 132.86 (9.74) in Hurtt (2010) and Verwey and Asare (2022) respectively. The mean (standard deviation) scores of organizational commitment and professional commitment are 71.62 (10.29) and 71.26 (10.42) respectively, both of which are considerably higher than 53, the thereotical midpoint of the scale. Thus, our participants were on average highly and equally committed to their organizations and profession.

[Insert Table 1 about here]

Empirical results

We used structural equation modeling (SEM) to allow us to represent, estimate and test the network of relationships among our variables. The estimated model fits the data (posterior predictive p-value = .45). Figure 2 presents all significant paths in the model and Table 2 provides an overview of the results as they relate to our hypotheses.

[Insert Figure 2 and Table 2 about here]

Obedience and conformity pressure (H1 and H2)

H1a predicts that there is a positive association between obedience pressure and skeptical judgments. H1b predicts that there is a positive association between obedience pressure and skeptical actions. As shown in Table 2 and Figure 2, H1a is not supported. Consistent with H1b, there is a positive association between obedience pressure and skeptical action ($\beta = .157$, confidence interval = $.045 < p < .263$). Similar results are indicated by the test of H2a and H2b, which predict positive associations between conformity pressure and skeptical judgments and actions respectively. There is a significant association between conformity pressure and skeptical action, in support of H2b ($\beta = .118$,

confidence interval = .009 < p < .226). However, we find no support for H2a. This suggests that as obedience or conformity pressure mounts, auditors become more skeptical in their actions. Further, pressure has no effect on skeptical judgments.

Client pressure (H3)

H3a and H3b predict a positive association between client pressure on skeptical judgment and skeptical action respectively. Both hypotheses are supported. We find a significant direct effect of client pressure on skeptical judgment (β = 0,130, confidence interval = .032< p < .224). Client pressure effects skeptical action, however this association appers to be a significant indirect effect pressure on (β = .043, confidence interval = 0.011 < p < 0.078).

Professional and organizational commitment (H4 and H5)

H4a predicts that there is a positive association between professional commitment skeptical judgments. H4b suggests that there is a positive association between professional commitment skeptical actions. Unexpectedly, we find no association between professional commitment and skeptical judgments or skeptical actions. Similarly, we find no association between organizational commitment and judgments or decisions. Thus, H4 and H5 are not supported.

Trait skepticism (H6)

H6a and H6b predict positive associations between trait skepticism and auditors' judgments and actions. Table 2 and Figure 2 shows, as expected, that trait skepticism was positively associated with skeptical action (β = .137, confidence interval = .038 < p < .236) in support of H6b. However, we find no association between trait skepticism and skeptical judgments (β = .023, confidence interval = -.077 < p < .125).

DISCUSSION AND CONCLUSIONS

This study provides evidence on the associations between pressure and traits on professional skepticism, as defined by judgment and actions**.** The primary finding is that engagement level pressures (conformity and obedience pressure) are associated with actions but not directly with judgment. This suggests that they come into play in the action, but not the judgment phase. Thus, these pressures can lead to different actions, in spite of similar judgments. On a positive note, we find that these pressures actually lead to skeptical actions, suggesting that regulatory and firm policies to improve skeptical actions are bearing fruit. In this regard, our results differ from those studies that have found deleterious effect of engagement level pressures. We find an even stronger effect for client pressures, which seem to manifest in both judgments and actions. It is worth noting that the Dutch regulator has emphasized the importance of pressure and appropriate professional skepticism, which may be manifesting in our experimental results. As such, the extent to which this finding is generalizable to other jurisdictions must await future studies. This combined result (no impact on judgment but having impact on action) may be due to the auditors exercising their professional responsibility when it comes to publicly acting as independent auditors.

We find no support for a relationship between commitment and professional skepticism. Further research to examine how the general disposition with respect to the profession and organization can impact judgments in day-to-day judgment processes is warranted. We also find that trait skepticism has no effect on judgment but has a positive association with skeptical actions. The trait skepticism-action linkage is consistent with theoretical expectations and suggest that firms can add value to the audit by utilizing trait information strategically. For instance, teams can be composed to achieve trait diversity and engagement assignments can benefit from trait information.

Based on Nelson's skepticism model it was expected that trait skepticism would both affect skeptical judgment and skeptical action. Our results on traits are therefore only partially consistent with this model. When combined with the latest insights regarding skepticism as described in Nolder and Kadous (2018), it may be the case that skeptical judgment is conditional on other specific circumstances present in the case (omitted variables). Perhaps, training affects judments, such as risk assessments while traits kick in the decision-making phase. In a recent study, Brazel, Leiby, and Schaefer (2022) examine the relationship between skepticism rewards and skeptical judgment and skeptical action. They report a divergence between skeptical judgment and skeptical action effects. Brazel et al. (2022) suggest that skepticism rewards may have a downside risk, i.e., auditors "believe the costs (consequences) of skepticism would be quite high in the severe red flag setting, possibly explaining their reluctance to act skeptically. Rewards are part of an audit firm culture. Further research is needed to clarify why trait skepticism directly affects actions but not intermediate judgments.

The study has limitations that present avenues for further research. First, participants were faced with pressure to deal with one contested item. However, in practice, pressure may be exerted over multiple items, which can introduce negotiated solutions that are not evident in our study. Second, our study is set in the Netherlands where the regulator has highlighted the dysfunctional nature of pressure and has required mandatory training that involves the use of the Nelson (2009) model. Thus, similar studies are needed in other jurisdictions before the full picture of pressure effects on skepticism can be discerned. Third, we focused on asset impairment. This may present different challenges from other areas such as fair value adjustments. Fourth, future research is needed to study why trait skepticism and pressures affect judgments and actions differently. This type of study may also comprise the correlation between trait skepticism and state skepticism. We refer to Khan and Oczowsky (2021) for a meta-analysis of prior literature. Notwithstanding these limitations, the paper has provided some important insights on how pressure and traits influence professional skepticism.

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Figure 1: The Effect of Incentives and Traits in Audit Performance

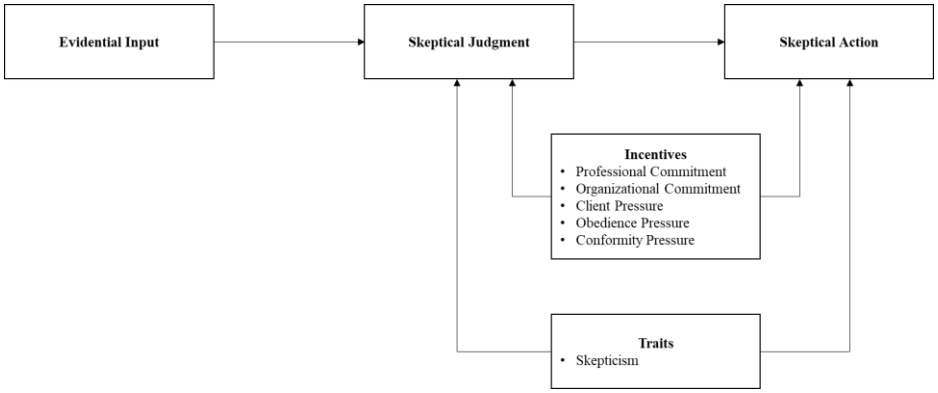
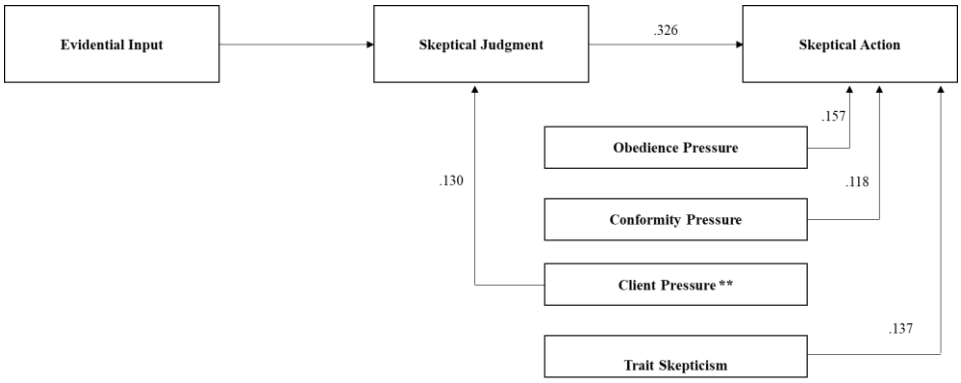


*Figure 2 SEM results for empirically testing Nelson's skepticism model**



Notes:
'Skeptical Judgment' and 'Skeptical Action' are dichotomous variables.
The model is obtained by Structural Equation Model (SEM) Bayesian estimation. The measure of the overall model fit is a posterior predictive p-value of .45.
*All path coefficients are significant standardized total effects.
** Client Pressure has a significant indirect effect on Skeptical Action ($\beta = .043$, confidence interval = $0.011 < p < .078$).

Table 1 Descriptive statistics

Panel A: Basic variables Nelson's Skepticism model

Variable	Mean	Standard deviation
Client Pressure	3.61	1.05
Professional Skepticism (Hurtt)	131.38	13.42
Organizational Commitment	71.62	10.29
Professional Commitment	71.26	10.42
Experience	122.55	101.91

Notes:
Client Pressure is the response to the question "to what extent have you experienced pressure from the CFO" measured on a 5-point scale (1 (no pressure at all) – 5 (a lot of pressure).
Professional Skepticism is the total score of 30 questions measured on the Hurtt scale 1-6.
Organizational Commitment is the total score of 15 questions measured on a 7-point scale (1= (no commitment) – 7 = (very high commitment).
PC = Professional Commitment is the total score of 15 questions measured on a 7-point scale (1 = no commitment – 7 = very high commitment).
Experience = audit experiments in months.

Panel B: Skeptical Judgment

	N	Percentage
Agree with CFO	89	21.1
Not agree with CFO	332	78.9
	421	100.0

Note:
Skeptical Judgment is measured as 1= agree with CFO, and 2= not agree with CFO.

Panel C: Skeptical Action

	N	Percentage
Unqualified audit report	70	27.9
Other	351	72.1
	421	100.0

Note:
Skeptical Action is measured as 1= unqualified audit report, and 2= other audit report.
An other audit report could be qualified, disclaimer or adverse.

Panel D: Distribution of Participants by Pressure condition and Firm

	Big 4	Non-Big 4	Total
Obedience pressure	73	90	163
Conformity Pressure	53	61	114
No Pressure	76	68	144
Total	202	219	421

Firm is coded as Big 4 = 1 and Non-Big 4 = 0.

Panel E: Distribution of Participants by Rank

	N	Percentage
Partner	71	16.9
Senior manager	89	21.1
Manager	105	24.9
Junior manager	81	19.2
Other	75	17.8
	421	100.0

Table 2 Overview Results per hypothesis

Hypothesis	**Independent variable**	**Dependent variable**	**Expected direction**	**Actual direction**	**Result**
H1a	Obedience pressure	Skeptical judgment	+	n.s.	No support
H1b	Obedience pressure	Skeptical action	+	+	Supported
H2a	Conformity pressure	Skeptical judgment	+	n.s.	No support
H2b	Conformity pressure	Skeptical action	+	+	Supported
H3a	Client pressure	Skeptical judgment	+	+	Supported
H3b	Client pressure	Skeptical action	+	n.s.	No support
H4a	Professional commitment	Skeptical judgment	+	n.s.	No support
H4b	Professional commitment	Skeptical action	+	n.s.	No support
H5a	Organizational commitment	Skeptical judgment	+	n.s.	No support
H5b	Organizational commitment	Skeptical action	+	n.s.	No support
H6a	Trait Skepticism	Skeptical judgment	+	n.s.	No support
H6b	Trait Skepticism	Skeptical action	+	+	Supported

[i] See, e.g., https://www.frc.org.uk/News-and-Events/FRC-Press/Press/2017/August/Sanctions-against-senior-auditor-and-PwC-in-relati.aspx
http://www.theaccountant-online.com/News/dutch-regulator-fines-big-four-firms-for-breaching-the-law-4865892
https://pcaobus.org/News/Releases/Pages/enforcement-Deloitte-Brazil-12-5-16.aspx

[ii] In the Netherlands, this is referred to as 'SIRA': Systematical Integrity Risk Assessment.

[iii] This heads-up is also consistent with International Standard on Auditing 240.A34, that points out that the auditor may intensify professional skepticism when assessing risk of a material misstatement due to fraud.

[iv] The DIT and Rotter scales measure moral reasoning and locus of control respectively. Both traits were not significant, individually or in combination with other variables, and are not further discussed.

[v] In our analyses (not reported and tabulated) we also included two other skeptical traits variables in the model: locus of control (Rotter 1966) and interpersonal trust (Rotter 1967). As we find no significant path regression for these variables we excluded them from the model.

[vi] We received responses from 501 participants and eliminated 80 responses due to missing data or the respondents not meeting the minimum rank requirement.

[vii] Our results presented in the next section are invariant to controlling for audit experience, firm, and rank.