



# The effects of performance-based profit-sharing schemes and client pressure on auditors' pre-negotiation judgments

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## ABSTRACT

Prior studies in auditing have examined the impact of performance-based profit-sharing schemes (PES) and client pressure in terms of explicit pressure and implicit pressure on auditors' judgments independently, and there is an ex-ante expectation that these two factors will interact in the context of proposed audit adjustments in a pre-negotiation setting. Based on the theory of motivated reasoning, this study examines whether explicit pressure by clients will have a smaller effect when auditors' PES is based on a firm-wide scheme as compared to a divisional scheme. We conduct a 2 × 2 between-subject experiment with 95 experienced auditors, predominantly audit managers from the US, that examines how performance-based profit-sharing schemes (i.e., firm-wide vs. divisional) of audit partners and client pressure (i.e., explicit vs. implicit) affect auditors' mindsets on the magnitude of provision for obsolete inventory to be reported in the client's financial statements in an auditor-client pre-negotiation setting. The findings show that auditors' PES and client pressure interact to affect auditors' behaviour in a pre-negotiation setting. Our results exhibit the concessionary (i.e., waiving a material audit adjustment) behaviour of audit partners, directors, and managers from the US. The findings extend contemporary research on auditor-client negotiation by providing evidence to the literature that PES schemes influence the behaviour of auditors in a pre-negotiation setting.

## 1. Introduction

Prior studies (e.g., Gibbins, Salterio, and Webb (2001) suggest that financial statements can be characterised as an outcome of negotiations between the auditor and client management. It implies that the auditor “co-creates” the financial statements and related disclosures with client management. Prior studies (Messier Jr & Schmidt, 2018; Hackenbrack & Nelson, 1996; Ng & Tan, 2003; Hatfield, Jackson, & Vandervelde, 2011) have shown that auditors' judgments, may be impacted when confronted with client pressure, as they might be susceptible to behavioural biases that could potentially lead to a misalignment of their incentives with the principle of auditor independence. The effect of client pressure is further exacerbated when Generally Accepted Accounting Principles (GAAP) require recording of the transaction but allow some latitude in the amount of the proposed audit adjustments (Kadous, Kennedy, & Peecher, 2003; Hackenbrack & Nelson, 1996). Furthermore, the International Auditing and Assurance Standards Board (IAASB, 2014) has

expressed concern that economic incentives (i.e., profit sharing schemes) may threaten auditor independence, impairing audit quality. Audit research and deficiencies in regulatory inspection reports provide evidence that auditors, due to client pressure and economic incentives, may motivate auditors, especially audit partners, to acquiesce to the client's preferred position by waiving material audit adjustments (Blay, 2005; Braun, 2001; Hackenbrack & Nelson, 1996; Kadous et al., 2003; Koch & Salterio, 2017; Ng & Tan, 2003; Wright and Wright, 1997; Van Brenk, Majoor, & Wright, 2021). This tendency to waive audit adjustments may lead to financial statements remaining materially misstated after negotiation. This inclination towards accepting the client's preferred position is troubling because it is detrimental to audit quality and protecting the public interest (Koch & Salterio, 2017). To discourage such opportunistic behaviour, classical agency theory predicts that performance-based profit-sharing schemes (such as firm-wide vs. divisional) can be designed and used to realign behavioural biases of auditors (Gomez-Mejia, Tosi, & Hinkin, 1987; Meckling & Jensen, 1976;

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Jensen & Murphy, 1990). Prior studies show that auditing firms have increasingly adopted performance-based profit-sharing schemes to compensate audit partners (Burrows & Black, 1998; Coram & Robinson, 2017; Ernstberger, Koch, Schreiber, & Trompeter, 2020; Van Breuk et al., 2021; Wyatt, 2004). Numerous studies suggest and find that the use of performance-based profit-sharing schemes influences managerial decisions in a negotiation context, for example (Ackelsberg & Yukl, 1979; Anctil & Dutta, 1999; Chong, Loy, Masschelein, & Woodliff, 2018; Ghosh, 2000; Ghosh & Boldt, 2006; Ravenscroft & Haka, 1996). The extant literature provides evidence that incentive-based compensation schemes influence self-interested behaviours (Evans III, Kim, & Nagarajan, 2006; Gong & Ferreira, 2014; Nagar, 2002).

The role of profit-sharing schemes and client pressure on auditors' reporting decisions is therefore a timely topic for research and practice. Although this experiment does not capture the actual compensation policies in practice, it does capture the effects of profit-sharing schemes and client pressure. We view that the use of this experiment has a comparative advantage over archival research as this experiment shows how, when, and ultimately why these two factors influence the behaviour of auditors. The aim of this experiment is to show how realistic the auditor subjects perceive the experimental conditions to real audit scenarios and exhibit their mindsets.

To date, prior studies (Ernstberger et al., 2020; Hatfield et al., 2011; Koch & Salterio, 2017; Van Breuk et al., 2021) have examined the impact of performance-based profit-sharing schemes and client pressure on auditors' judgments *independently*, and there is an *ex-ante* expectation that these two factors will interact in the context of proposed audit adjustments in a pre-negotiation setting. It has been suggested that the greater the client-specific revenue stream (i.e., the more the auditor loses audit fees by client termination), the lower the chance that the auditor will report a discovered breach (DeAngelo, 1981). In other words, the greater the observed future economic interest in a given client, the lower the chance that the auditor will report a breach of the quality of the client's financial statements. It is expected that the firm-wide profit-sharing scheme may provide a cushion to withstand client pressure to a certain extent as they are less economically dependent on the revenue stream from a particular client. Relying on the theory of motivated reasoning (Kunda, 1990), it is predicted that auditors whose performance is based on a firm-wide profit-sharing scheme will be less likely to act as motivated reasoners and acquiesce to extreme client pressure to accept client-specific demands. There is an *a priori* reason to argue that client pressure will have a smaller effect when auditors' performance is based on a firm-wide profit-sharing scheme as compared to a divisional profit-sharing scheme. That is, we predict that auditors will exhibit the lowest concessionary mindset under the firm-wide profit-sharing scheme implicit pressure condition and, the highest concessionary mindset under the divisional profit-sharing scheme explicit pressure condition because auditors face low versus high economic incentives to keep clients happy. Furthermore, we expect the concessionary mindset of auditors to be in between these two extremes in the conditions of firm-wide profit-sharing scheme/explicit pressure and divisional profit-sharing scheme/implicit pressure because the economic incentives are moderate in these circumstances (i.e., high in the one and high in the other condition and vice versa). This leads to a research question to be empirically verified as follows:

- *What are the independent and joint effects of client pressure (i.e., explicit vs. implicit pressures) and the use of performance-based profit-sharing schemes (i.e., firm-wide vs. divisional profit-sharing schemes) on auditors' pre-negotiation mindsets?*

To address the above research question, we conduct a 2 × 2 between-subject experiment with 95 experienced auditors, mainly from the US that examines how performance-based profit-sharing schemes (i.e., firm-wide vs. divisional) of audit partners and client pressure (i.e., explicit vs. implicit) affect auditors' mindset on the magnitude of

provision for obsolete inventory to be reported in the client's financial statements in an auditor-client pre-negotiation setting. We relied on a case study about obsolete inventory to be reported because the auditor and client management (hereafter, client) may differ in their professional judgments of accounting estimates of the value of the obsolete inventory. The "differences in professional judgement" often result in disagreements over such accounting issues and require negotiations between clients and auditors to resolve the disagreements (Gibbins et al., 2001; Gibbins et al., 2001; Tan & Trotman, 2010).

The results show that auditors' performance-based profit-sharing scheme and client pressure interact to affect auditors' pre-negotiation mindset. Our results exhibit concessionary (i.e., waiving a material audit adjustment) mindsets of experienced auditors. Specifically, when faced with explicit pressure from the client, auditors in divisional profit-sharing schemes are more willing to waive the audit adjustment than auditors in firm-wide profit-sharing conditions.

Our findings have the following contributions. First, the results of this study extend the contemporary research on auditor-client negotiation by providing evidence to the literature that performance-based profit-sharing schemes influence the behaviour of auditors in a pre-negotiation context. The findings suggest that auditors do not only act as motivated reasoners due to client pressure since performance-based profit-sharing schemes may also influence auditors' behaviour. This theoretical discussion on the theory of motivated reasoning explains the findings in prior empirical studies in auditing (Carcello Hermanson & Huss, 2000; Dekeyser, Gaeremynck, Knechel, & Willekens, 2016; Trompeter, 1994). Second, the findings of this study also enrich the auditor-client negotiation literature by providing additional evidence that client pressure influences the mindsets of auditors in a pre-negotiation context, even in the post-SOX era. Specifically, the results are consistent with the findings of a prior study by Hatfield et al. (2011) and confirm the claim by Moore, Tetlock, Tanlu, and Bazerman (2006) that SOX 2002 reforms may be inadequate to completely restrain auditors from adopting a self-interested goal in response to client demands. The study also confirms prior research by Koch and Salterio (2017) that greater manipulated client pressure can lead auditors to adopt a self-interested goal and acquiesce to client preferences by lowering proposed audit adjustments. Third, this study further enriches the theoretical discussion on the theory of motivated reasoning by explaining the association between the theory and auditors' mindset. Although the experimental conditions elicit real audit scenarios, auditors had no reason to exhibit their concessionary mindsets because they would not face any adverse financial consequence (i.e., losing a revenue-generating client) in reality. This concessionary mindset of auditors shows how auditors were unable to detach themselves from the real audit environment and exhibited the mindset as they would have done in actual audit engagements.

Our results have implications for audit practice. First, the findings of this experiment suggest audit practitioners in divisional profit-sharing arrangements may be more influenced by the pressure imposed by clients than those in firm-wide profit-sharing arrangements. Hence, the findings of this experiment suggest that audit firms with divisional profit-sharing arrangements may structure audit partners' compensation schemes to de-emphasise the association between audit partners' compensation and client loss measures to provide greater insulation from client pressure. There is a need for accounting firms with small (i.e., divisional) profit pools to implement additional safeguards in designing performance-based compensation schemes for audit partners.

Second, the findings may alert regulators and standard setters about the influence of economic (i.e., financial) incentives that impact accounting numbers in a negotiation context. This study supports the discussion by the IAASB (2014) that financial incentives should not be allowed to impair audit quality (Francis, 2004; Trompeter, 1994; Wyatt, 2004; Zeff, 2003). The Transparency Reports contain details about audit partners' compensation (e.g., fixed salary and variable performance bonus) but information regarding the profit-sharing pool is not

mentioned. The regulators and standard-setters may gain insight into how performance-based profit-sharing schemes affect the behaviour of auditors in the negotiation phases. It is known that standard setters are aware of disagreements between auditors and clients, and the related discussions are important in improving audit quality (ISA No. 450). There is the opportunity for standard setters to revise their guidance or update their policies regarding performance-based profit-sharing schemes to audit partners. The findings suggest that the regulators and standard setters may require the accounting firms to disclose information on the nature of the profit-sharing schemes along with the entire client portfolio of audit partners. This disclosure may increase transparency relating to the remuneration structure of audit partners and increase their accountability (see PCAOB, 2015).

The remainder of this paper is organised with theoretical discussion and hypotheses development in Section II, research design, and method in Section III. Section IV presents our results. We conclude with a discussion of the results and their implications for audit practice, limitations, and future research in Section V.

## 2. Background and hypothesis

The extant literature on auditor-client negotiation has established the notion that financial statements can be characterised as an outcome of negotiations between an auditor and client management (Antle & Nalebuff, 1991; Gibbins et al., 2001; Gibbins, McCracken, & Salterio, 2005; Trotman, Wright, & Wright, 2005). The professional pronouncements (SAS No. 47, American Institute of Certified Public Accountants AICPA, 1984; SAS No. 82, AICPA, 1997; SAS No. 99, AICPA, 2002) recognise an auditor's responsibility to detect material misstatements and then ensure appropriate resolution of them. If those disagreements are not appropriately resolved, and the auditor believes the financial statements are materially misstated, the auditor is required to issue a modified (e.g., qualified, or adverse) opinion. A modified audit opinion reduces an auditor's implicit assessment of costs associated with litigation risks, regulatory sanctions, and loss of reputation (Carcello & Palmrose, 1994). On the other hand, clients<sup>1</sup> may switch auditors after having received a modified audit opinion (Chow & Rice, 1982; Lennox, 2000; Krishnan, 1994; Krishnan & Krishnan, 1997; Carey, Geiger, & O'Connell, 2008) because they are dissatisfied with the outcome of a negotiation with the auditor (Sanchez, Agoglia, & Hatfield, 2007; Tan & Trotman, 2010).

Both audit research and deficiencies in regulatory inspection reports provide evidence that auditors often adopt self-interested goals to acquiesce to the client's preferred position (Blay, 2005; Hackenbrack & Nelson, 1996; PCAOB 2014, 2012, 2011; Kadous et al., 2003; Koch & Salterio, 2017; Ng & Tan, 2003, Sinaceur and Neale, 2005). This tendency to waive audit adjustments may lead to financial statements remaining materially misstated after negotiation. This inclination towards accepting the client's preferred position is troubling because it is detrimental to audit quality and protecting the public interest (Koch & Salterio, 2017).

In the social psychology literature, Kunda (1990) suggests motivated

reasoning occurs when an individual is motivated to arrive at a particular conclusion. However, Kunda (1990 482–483) also suggests that individuals are motivated to arrive at a goal, attempt to be rational, and try to find seemingly justifiable reasons for those conclusions to persuade a “dispassionate observer.” Prior auditing studies have shown that auditors act as motivated reasoners (Blay, 2005, Kadous et al., 2003, Peecher et al. 2010, Hackenbrack 1992, Koch & Salterio, 2017).

Kunda (1990 493) states that “directional goals have been shown to affect people's attitudes, beliefs, and inferential strategies in a variety of domains and studies conducted by numerous researchers in many paradigms.” For example, purely financial considerations may motivate auditors to act as motivated reasoner and adopt directional goals that are consistent with client preferences. Bazerman and colleagues (Bazerman, Loewenstein, & Moore, 2002; Bazerman, Morgan, & Loewenstein, 1997; Bazerman & Moore, 2011; Moore, Tetlock, Tanlu, & Bazerman, 2006; Bazerman, Moore, Tetlock, & Tanlu, 2006) argue that as long auditors are hired and paid by the client it enhances the willingness of an auditor to adopt a self-interested directional goal of “to see the world through the eyes of client management” (Koch & Salterio, 2017 118). Auditors have a strong incentive to remain in the client's good graces and are thus highly motivated to accept their client's preferred accounting treatments. Expressing the arguments proposed by Bazerman and his colleagues in terms of motivated reasoning theory (Kunda 1990), it can be argued that an auditor might adopt a self-interested goal to acquiesce to the client's preferable reporting choices because the client hires and fires the auditor.

### 2.1. Performance-based profit-sharing scheme

The central theme of this paper is to examine whether the performance-based profit-sharing scheme variable (i.e., economic motivation) affects experienced auditors' concession-making behaviour (i.e., waive material audit adjustment) in pre-negotiation as well as negotiation settings. The dominant organisational form for audit firms is a partnership structure (Kandel & Lazear 1992; Greenwood, Hinings & Brown 1990; Huddart & Liang 2003, 2005; Liu & Simunic 2005). Audits are administered by engagement partners based in a specific practice office who are predominantly remunerated using a performance evaluation-based profit-sharing scheme (Burrows & Black, 1998; Coram & Robinson, 2017; Trompeter, 1994; Wyatt, 2004).

Consistent with the theory of motivated reasoning, it can be argued financial considerations may induce auditors to act as motivated reasoners and reach client-preferred outcomes. The reason is that an individual partner obtains a significant portion of the expected benefits from accepting client demands while passing the expected cost to the partnership as a whole (Trompeter, 1994). Trompeter (1994) suggests if accounting firms use a small profit pool (i.e., divisional profits) in determining partner compensation, then it is more likely an individual audit partner will acquiesce to client preferences as he/she may become financially dependent on the client. In contrast, when accounting firms use a large profit pool (i.e., firm-wide profits) to compensate for an audit partner, each partner has less stake in a particular engagement. It can be argued that an individual partner will be less financially dependent on a particular client. This is because when audit firms share profits across a larger pool, the partners from other offices have a stake in a particular engagement. Hence, the individual partner will be less motivated to accept the client's preferred treatments as the client is much less important to the partner's income. The main concern is that a divisional profit-sharing scheme may create more independence issues as this scheme creates greater conflicts of interest for auditors than auditors in a firm-wide scheme. Auditors in a divisional scheme may face more pressure to retain existing clients and thus prevent loss of compensation (i.e., bonus) by acquiescing to client's aggressive demands. Prior experiment (Van Brenk et al., 2021) and archival research shows audit quality improves when audit partners' compensation is based on a large profit pool (Carcello Hermanson & Huss, 2000; Dekeyser et al., 2016;

<sup>1</sup> The decision to hire or fire auditors is made by those charged in governance (e.g., audit committee). SOX Act (2002) mandates the Blue Ribbon Committee recommendation that for US publicly traded companies, the audit committee hires/terminates the audit firm. Hatfield, Agoglia & Sanchez (2008) stated in Footnote 8 (pp 1190–1191) that “while the audit committee is responsible for engaging/terminating the auditor, discussions with several Big-4 partners (including a national officer in charge of practice issues) indicate that management's role in the auditor retention decision has not significantly diminished. Further, a survey of audit committee members and other executives finds that controllers/CFOs have the greatest influence (e.g., greater than the audit committee) over issues such as auditor compensation and retention (KPMG [2004]).”

Ernstberger et al., 2020; Hay, Baskerville, & Qiu, 2007). Based on the theory of motivated reasoning and the findings of previous studies (Chong et al., 2018; Van Brenk et al., 2021) we predict a main effect of the type of profit-sharing schemes on the concessionary mindset of auditors:

**H1.** : Ceteris paribus, auditors in the divisional scheme condition will be prepared to accept a smaller allowance for obsolete inventory than auditors in the firm-wide scheme condition in a pre-negotiation context.

## 2.2. Client pressure

Pressure from the client is defined, “as the pressure to yield, or the perceived pressure to yield, to a client’s wishes or influence, whether appropriate or not” (DeZoort & Lord, 1997 p 47). It is crucial for the auditing profession to have an understanding of behaviour of auditors by evaluating whether acute forms of client pressure (i.e., explicit pressure) are considered differently from chronic forms of client pressure (i.e., implicit pressure) (see DeZoort & Lord, 1997). Auditing reforms aimed to reduce the client’s ability to exert pressure on auditors, enhance the ability of auditors to withstand client pressure, and protect auditors from client pressure (Nelson, 2006). For example, the Securities and Exchange Commission (SEC) adopted rules that restrict the ability of clients to pressurise auditors as directed by Section 303 of SOX. Thus, the motivation is to examine whether the SOX reforms have succeeded in mitigating client pressure, particularly in the context of proposed audit adjustments. To date, limited studies examining the impact of client pressure on auditors’ behaviour have been conducted in the post-SOX era (Hatfield et al., 2011; Koch & Salterio, 2017; Messier Jr & Schmidt, 2018). Specifically, our study distinguishes the extent to which the pressure explicitly versus implicitly mentions what action the client would take if the auditor does not comply with specific client demands (Brehm, Kassin, & Fein, 2004; Eden, 1982; Pratt & Barling, 1988).

In an audit setting, client pressure may affect auditors’ decisions by motivating them to accept a client’s preferred outcome. If client pressure triggers the financial motivation of auditors, they might adopt a self-interested goal to keep their clients satisfied. Consistent with the theory of motivated reasoning and the arguments put forward by Bazerman and colleagues, it can be argued that as long auditors are hired and paid by the client, the auditor will have a strong self-interest to accede to the client’s demands. The plausible reason is that the potential loss of a publicly listed client will lose not only future revenue for the audit firm but also have a negative impact on an individual’s performance bonus, eventually adversely affecting their career prospects.

When the client intensifies pressure by explicitly demanding to waive the proposed audit adjustment and threatens to remove the auditor from future engagements, the auditor will be more motivated to adopt a goal to satisfy the client’s preference by accepting smaller audit allowances for obsolete inventory because this kind pressure will pose more threat to auditor independence because it creates greater conflict of interest. On the other hand, when the client does not explicitly exert pressure but expects auditors to waive the proposed audit allowance, auditors will experience implicit pressure to accept the client’s preferred outcomes. However, the intensity of implicit pressure is comparatively less acute than when the client is overtly suggesting waiving the proposed audit allowance for obsolete inventory. The findings by Hatfield et al. (2011) reveal that auditors in a high pressure situation propose significantly smaller audit adjustments than the auditors in a low pressure situation. Similarly, the results by Koch and Salterio (2017) also show that higher perceived client pressure resulting in auditors proposing smaller audit adjustments. Based on the theory of motivated reasoning and the findings of prior research studies (Hatfield et al., 2011; Koch & Salterio, 2017) we predict a main effect of client pressure on the concessionary mindset of auditors:

**H2.** : Ceteris paribus, auditors in the explicit pressure condition will be prepared to accept a smaller allowance for obsolete inventory than

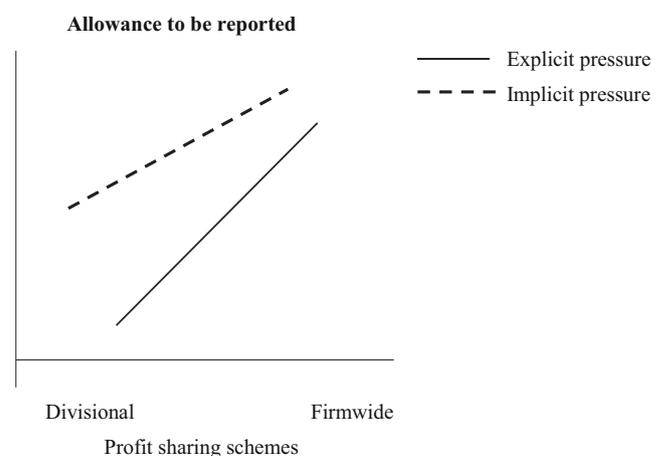
auditors in the implicit pressure condition in a pre-negotiation context.

## 2.3. Interaction between PES and client pressure

In this paper, we investigate whether client pressure is mitigated by profit-sharing schemes. The theory of motivated reasoning suggests individuals have a rationale to reach a particular conclusion. Similarly, in an auditing context, audit partners also have a rationale to reach a client’s preferred treatment. The rationale stems from whether the audit partner is financially dependent on the specific client engagement. From a financial perspective, audit partners in a firm-wide scheme will be less economically dependent on revenue generated by an individual client, although losing a publicly listed client may affect audit partners’ future career prospects. Auditors, especially audit partners in firm-wide profit-sharing schemes will be less motivated to agree to the client’s preferred position because an individual partner has less at stake in a particular engagement; therefore, being more immune to client pressure. In that instance, auditor partners may adopt a more conservative stance when accepting the proposed audit allowance for obsolete inventory. On the other hand, audit partners in a divisional scheme will be more vulnerable to client pressure as they are financially dependent on individual client engagement. Hence, it is expected that audit partners in the divisional scheme will adopt a self-interested goal to meet client demands, that is, waive the audit adjustment when recording the proposed allowance for obsolete inventory. We predict that auditors will exhibit the lowest concessionary mindset under the firm-wide profit-sharing scheme implicit pressure condition and, the highest concessionary mindset under the divisional profit-sharing scheme explicit pressure condition because auditors face low versus high economic incentives to keep clients happy. In addition, we expect the concessionary mindset of auditors to be in between these two extremes in the conditions of the firm-wide profit-sharing scheme/explicit pressure and divisional profit-sharing scheme/implicit pressure because the economic incentives are moderate in these circumstances (i.e., high in the one and high in the other condition and vice versa). Accordingly, Hypothesis 3, is stated as follows:

**H3.** : Ceteris paribus, auditors will exhibit the highest (lowest) concessionary mindset under the divisional scheme and explicit client pressure (firm-wide scheme and implicit client pressure) conditions, whereas concessionary mindset is moderate in between these two extreme conditions (divisional scheme/implicit client pressure and firm-wide scheme/explicit pressure) in pre-negotiation settings.

The hypothesised ordinal interaction is shown in Fig. 1.



**Fig. 1.** Hypothesised ordinal interaction of profit-sharing scheme and client pressure on the allowance for obsolete inventory.

### 3. Research design

#### 3.1. Task and procedure

In this study, we develop our scenarios about Highpoint Electronics based on two published studies (Bennett, Hatfield, & Stefaniak, 2015; Koch & Salterio, 2017). The scenario requires participants to assume the role of an audit partner receiving a report from the audit manager about disagreements regarding an estimation for inventory obsolescence resulting in a potential overstatement of pre-tax income. Highpoint Electronics is also involved in a merger discussion with a competitor firm. The client is reluctant to record the income-reducing audit adjustment because it may cancel the merger. Participants were provided with background information regarding the audit firm and the client. Important contextual factors relating to the audit firm were held constant. Specifically, we mentioned that the audit firm is subject to annual review by the regulatory authority, and the firm is also registered for peer review by the professional body every three years. Moreover, the concurrent partner for this engagement is a very senior audit partner and specializes in manufacturing industry audits. Also, we mention that "Form AP" must be submitted to the regulatory authority.<sup>2</sup>

The engagement team possesses sufficient experience to perform this engagement, and the team comprises an audit manager, two audit seniors, and two junior auditors. We also provide information that the client is important from the local office perspective because it contributes significantly to total revenue derived from audit fees. Moreover, the key contextual factors of the client were held constant. Specifically, we mention the CFO is professionally qualified with prior audit experience. The CFO is quite flexible regarding audit adjustments, and in prior years, the CFO agreed to most audit adjustments. Therefore, no qualified audit opinions were issued. In prior years, the CFO and accounting staff cooperated with the audit team. The audit team and client have developed a good working relationship. The Board of Directors takes an active interest in the day-to-day working of the company. The internal controls are sound and can be relied upon. The audit committee is considered strong and asks many probing questions on accounting decisions. After the background information, participants received a simplified comparative income statement along with information on inventory balance (current year unaudited and prior year audited). Participants then considered a situation where a material difference (\$5,000,000) arose during the audit between the auditor's estimate (\$7,000,000) and the client's estimate (\$2,000,000) for inventory obsolescence. The audit client recorded the allowance for obsolete inventory at \$2,000,000 in the unaudited financial statements. The audit team's initial estimate was their independent estimate for the obsolete inventory allowance.

In both experiments, auditor participants were specifically required to answer the question about the allowance of obsolete inventory to be reported in the client's financial statements, not the adjusting journal entry of \$5,000,000 to be recorded in their audit work papers. For that reason, the question did not ask the participants to choose an amount between \$0 and \$5,000,000. Instead, it is expected that auditor participants will be able to record the required adjusting journal entry (i.e., Dr. Cost of Sales and Cr Allowance for obsolete inventory) in hindsight after determining the allowance for the obsolete inventory.

For example, if an auditor wants to report \$5,500,000 as the allowance for the obsolete inventory on the client's financial statements, then the following adjustment entry would need to be recorded in the work papers of the auditor:

Dr. Cost of Sales \$3,500,000

Cr Allowance for obsolete inventory \$3,500,000.

This is because there is an allowance of \$2,000,000 for obsolete

<sup>2</sup> The PCAOB adopted new rules requiring audit firms to disclose names effective for audit reports issued on or after January 31, 2017 (PCAOB 2015; SEC 2016).

inventory recorded by the client in the unaudited financial statements. In order to report an allowance of \$5,500,000 in the client's financial statements, the auditor needs to record an adjustment entry of \$3,500,000 in their work papers.

#### 3.2. Independent variables

To test our hypothesis, we employed a 2 × 2 between-subjects design where the pressure variable (explicit versus implicit) and the PES variable are (divisional scheme versus firm-wide scheme) fully crossed.

We adopted the manipulation for the divisional scheme and firm-wide scheme from Chong et al. (2018). For the divisional scheme manipulation, we provided the following information to the subjects, "It is the policy of your firm that all audit partners' bonus is tied to the financial performance of your local office (divisional profits). Your bonus is calculated by the office managing partner from a profit pool based on the divisional profits". Similarly, for the firm-wide scheme manipulation, we provided the following information to the subjects, "It is the policy of your firm that all audit partners' bonus is tied to the financial performance of your audit firm at the national level (firm-wide profits). Your bonus is calculated by the office managing partner from a profit pool based on the overall firm-wide profits".

We adopted the manipulation for explicit and implicit pressure manipulation from Koch and Salterio (2017).<sup>3</sup> For both the explicit and implicit pressure conditions, we mentioned that the client is willing to adjust the financial statements for clear-cut errors.

We included the following information in the instruments for the manipulation of explicit client pressure, "However, beyond that, any adjustment is not acceptable given the delicate stage that the merger discussions are at. The CFO told your audit manager that a successful merger meant your audit firm would likely continue to be the auditor of the merged firm for a considerably higher fee. The CFO also pointed out that if your firm reduces the pre-tax income, the management of Highpoint would likely appoint a new auditor in the next year." Similarly, for implicit pressure manipulation, we included the following information in the instruments, "However, beyond that, any adjustment may be evaluated in the light of the delicate stage that the merger discussions are at. In your personal view, if the adjustment is waived, your audit firm may be likely to continue to be the auditor of the merged firm for a considerably higher fee. You have the impression that Highpoint management may appoint a new auditor in the next year if your firm reduces the pre-tax income."

#### 3.3. Procedure

We used an online method to collect data. Given the seniority of audit practitioners who generally negotiate with a client, it was difficult to get subjects for this experiment. Hence, we employed a large international online research panel, Qualtrics, to collect data for this study. Qualtrics did a 'soft launch' (i.e., pilot study) to pre-test the instruments for case realism. The pilot study did not highlight the need for any significant changes to the instruments.

Recent studies suggested after incorporating adequate screening questions online platforms (e.g., Qualtrics) may be considered as a potential avenue for the recruitment of auditor participants for experimental settings (Leiby, Rennekamp and Trotman, 2021; Holt & Loraas, 2019; Brandon, Long, Loraas, Mueller-Phillips, & Vansant, 2014).

<sup>3</sup> We considered a situation where clients bring explicit pressure with ultimatums to terminate the relationship similar to the experimental study conducted by Blay in 2005. In that experiment, the images of client threatening auditors with the termination of the relationship was highlighted. For example, Blay (2005, p 776) manipulated high independence threat as "the original partner on the engagement has told you that management once indicated that they would likely to hire a new auditor in the event of a modified opinion."

External auditors represent a reasonably difficult participant group to access for behavioural accounting researchers. Given the seniority of external audit practitioners who usually negotiate with a client, it is even more difficult to get access to participants for this experiment. Hence, this study employs a reputed international online research panel, Qualtrics to collect data for this experiment. Other published accounting studies (Long & Basoglu, 2016; Nelson & Rupa, 2015) also used the Qualtrics panel to recruit tax accountants and MBA graduates (Study 2), respectively. The recruitment of tax accountants indicates it is not uncommon to use Qualtrics Panel to recruit hard-to-reach participants.

Qualtrics Panel provides participant recruitment services for a fee. The researcher of this study did not have direct contact with participants, who were compensated for completing the study instruments by Qualtrics. Qualtrics does not divulge participant compensation information. There is considerable debate among academic researchers regarding using online platforms (e.g., Qualtrics) for the recruitment of participants with specialised knowledge, skills, and experience (e.g., external auditors, and tax accountants). Nevertheless, recent studies suggest after incorporating adequate screening questions, online platforms may be considered as a potential avenue for the recruitment of external auditor participants for research purposes (Brandon et al., 2014; Holt & Loraas, 2019; Leiby et al., 2021).

The two appealing aspects of the Qualtrics Panel are that participation is truly voluntary and participants are truly anonymous to the researcher (Holt & Loraas, 2019). Voluntary participation implies participants recruited through Qualtrics Panel are true “pull” participants as they willingly decide to volunteer to participate in surveys or experiments. Similarly, a potential benefit of the true anonymity of participants to the researcher is that participants feel no demand effects as they know their responses cannot be tied to themselves or their firm and they can, therefore, answer freely. Based on their findings Holt and Loraas (2019) commented, “Qualtrics Panels present a promising avenue for obtaining external auditor participants when the research context is applicable to a broad spectrum of auditors.”

Furthermore, in the article by Leiby et al. (2021, p. 65), the authors mentioned that critics of online platforms often point to participant anonymity and low wages as red flags for inattention or low effort (Clifford & Jerit 2014) but there is no evidence to support these criticisms. Moreover, Hauser and Schwarz (2016) found that online participants are more sensitive to subtle, yet meaningful changes in the wording of questions.

Qualtrics randomly distributed four condition-based research instruments to its community panel members along with invitation letters stating the purpose of the study. We recruited experienced audit practitioners (e.g., audit partners, directors, senior managers, and managers) from the US.<sup>4</sup>

We incorporated three screening questions to filter out participants who did not meet our criteria. We used the following criteria for sample inclusion. The first screening question was about the current profession of the participant. If participants selected a profession other than “External Auditor,” the survey would terminate. The second screening question was the actual external audit position of the participant. If participants selected “Junior Auditor,” the survey would terminate. The last screening question was related to participants’ experience (i.e., number of years) as an external auditor. If participants selected “0–3” years’ experience as an external auditor, the survey would terminate.

Then, we examined the respondents’ identification (ID) numbers and internet protocol (IP) addresses, which revealed no similar ID numbers or IP addresses. This examination of IP addresses suggested that there

<sup>4</sup> Audit partners are generally the first movers in the negotiation process with the client (Gibbins et al. 2010). However, prior research (Fu et al., 2011; McCracken, Salterio, & Schmidt 2011) also used audit managers as participants. Moreover, the study by Gibbins et al. (2001) reported staff auditors also are involved in the negotiation process.

were not multiple responses from the same respondents. This examination of IP addresses suggests that there were no multiple responses from the same respondents. The quality check protocol (e.g., Prevent Ballot Box Stuffing) option generally prevents participants from taking a survey more than once. The preventive option places a cookie option on participants’ browsers when they submit a response. If a participant clicks on the survey link for a second time, Qualtrics will detect this cookie and not permit the participant to retake the survey.

Participants responded to comprehension and manipulation check questions. Next, subjects responded to two questions regarding the minimum allowance they would accept and their chosen materiality level. Finally, participants responded to a series of demographic questions.

#### 4. Data analysis and results

We collected a total of 95<sup>5</sup> responses for this study. The demographic information is summarised below:

For this study out of 95 participants, 61 are male and 34 are female participants. Out of the total participants, 11, 42, and 23 participants are audit partners, directors, and senior audit managers, respectively. The remaining 19 are audit managers. In terms of audit experience, 34 participants have more than 10 years of experience. 42 participants reported they have audit experience between 7 and 9 years whereas 19 participants mentioned their audit experience falls between 4 and 6 years. Out of the total participants, 27 participants reported that they work in Big 4 firms, 18 and 16 participants reported that they work in non-Big 4 firms with international presence and non-Big 4 firms with a national presence, respectively. The remaining 25 and 9 participants work in regional and local firms. Lastly, the participants were asked how often they resolve audit differences with clients. 26 and 44 participants reported that they resolve audit differences very frequently and frequently, respectively while 22 participants reported that they occasionally resolve audit differences. One and two participants mentioned that they resolve audit differences rarely and very rarely.

##### 4.1. Comprehension checks

After reading the case materials participants were asked to respond to a number of comprehension and manipulation check questions. Next, subjects were asked to respond to two questions regarding the minimum allowance they would accept (i.e., dependent variable) and their chosen materiality level.

This experiment introduces two comprehension questions to check whether the majority of the participants read the case with reasonable attention. The first comprehension question relates to the divisional and firm-wide schemes. Specifically, the participants were asked to “Indicate to what extent you agree or disagree that your performance bonus depends on the divisional (firm-wide) profits” for divisional (firm-wide) manipulation on a 7-point Likert scale (7 - Strongly Agree and 1 - Strongly Disagree). The results show that out of 50 participants in the divisional profit-sharing schemes, 20, 18, and 10 participants responded, “Strongly agree”, “Agree”, and “Somewhat agree”, respectively to the question of whether the performance bonus depends on the divisional profit. Only two participants answered “Neither agree nor disagree” to the above comprehension question. Similarly, the results show that out of 45 participants in the firm-wide profit-sharing schemes, 16 and 25 respondents answered, “Strongly agree” and “Agree”, respectively to the question of whether the performance bonus depends on the firm-wide profit. The remaining four participants answered

<sup>5</sup> The researchers of this study did not have direct contact with participants, who were compensated by Qualtrics for completing the instruments. Qualtrics does not divulge participant compensation information. Qualtrics charged 160 Australian dollars per response to Qualtrics.

“Somewhat agree” to the above comprehension question. Therefore, the results suggest that the majority of the participants in this study understood the case information and answered this comprehension question in the right direction.

The second comprehension question was to check whether the participants agreed to reduce the pre-tax income as the financial statements were materially misstated as per the generally accepted accounting principles (GAAP). Koch and Salterio (2017) stated that the International Accounting Standard (IAS 8) requires “material or immaterial errors designed to achieve a particular presentation,” must be rectified or adjusted without referring to the size of the adjustment. This rule may be applied to mergers where a particular presentation of financial statements is required. In the US, similar requirements are present under Staff Accounting Bulletin 99. The experimental conditions include a sentence, “In your opinion, Highpoint Electronic’s current pre-tax income is unacceptable, and an audit adjustment is required to reduce the pre-tax income.” Then the participants were required to answer the following question, “Indicate to what extent you agree or disagree that you are required to reduce Highpoint’s pre-tax income under the generally accepted accounting principles (GAAP)?” The results show that out of 95 respondents across all the experimental conditions, 37 and 34 participants responded, “Strongly Agree” and “Agree”, respectively. Out of the remaining 24 respondents, 20 answered “Somewhat Agree” and 4 answered “Neither Agree nor Disagree” to this question. Therefore, the results suggest that most of the participants in this study understood the case information and answered this comprehension question in the right direction.

#### 4.2. Manipulation check

In this experiment we included a manipulation question on client pressure, “Indicate to what extent you agree or disagree that the CFO is attempting to exert tremendous pressure on your audit manager in this situation” on a 7-point Likert scale (7 - Strongly Agree and 1- Strongly Disagree). We expect that participants in the explicit pressure condition will feel pressure to a greater extent than participants in the implicit pressure condition. The mean responses are 6.35 and 6.00 for the explicit and implicit pressure conditions, respectively. We find the responses of participants are directionally consistent with our manipulation ( $t = 1.605, p = 0.053$ , one-tailed).

For this experiment we included a manipulation question on performance bonus, “Indicate to what extent you believe that your performance bonus depends on this audit engagement” on a 4- point scale (4 - To a great extent, 3 - Somewhat, 2 - Very little and 1- Not at all). The mean responses are 3.38 for both the divisional and firm-wide profit-sharing conditions, respectively. Our manipulation question on performance bonus shows the statistical results of ( $t = 0.018, p = 0.493$ , one-tailed).

It seems the manipulation question of whether the performance bonus depends on this engagement did not elicit that internal state of feeling among auditor participants. The researcher of both experiments assumed that most participants in divisional (firm-wide) profit-sharing conditions would answer that manipulation question in the direction expected by the researcher. For example, the researcher expected most participants in the divisional profit-sharing condition would feel their performance bonus depends “To a great extent” on this engagement. Similarly, it was expected most participants in the firm-wide profit-sharing scheme condition would feel that their performance bonus depends “Very little” on this engagement. The main reason for the failure to capture participants’ internal state of feeling can be attributed to the explanation put forward by Chow (1983, p. 673), the manipulation question on performance bonus was “make-believe” where there would be no impact on the actual performance bonus of auditors. The potential issue with using a hypothetical performance bonus is that the participants may fail to internalise treatment conditions. However, the study by Chow (1983) provided evidence that participants with fictitious

payoffs can behave in a similar way as they would have with real payoffs. Similarly, in this study some of the auditor participants did not fully internalise the manipulation question on performance bonus but their responses to the question on the allowance (i.e., dependent variable) suggest that the auditor participants would have shown a similar mindset if they received real performance bonus.

Moreover, to assess the validity of experimental studies, there is a growing concern in academia that every experimental study suffers if questions on manipulation check fail. A recent article provides arguments against dropping participants based on manipulation checks (Aronow, Baron, & Pinson, 2019). The authors provided a number of statistical results that excluding participants who failed manipulation checks may bias estimates or undermine the identification of causal effects. They showed that “this practice is equivalent to inducing differential attrition across treatment arms, which may induce bias of unknown sign and magnitude” (Aronow et al., 2019, p. 573). In another article, it is argued that sometimes manipulation check questions cannot measure the impact of the independent variable directly because the question tries to capture or measure participants’ internal state of feeling or understanding of the case (Hauser, Ellsworth, & Gonzalez, 2018).

## 5. Results

We conducted an ANOVA to test whether the difference was significant (see Table 1). The results showed that the mean allowance for divisional profit explicit (implicit) pressure conditions are \$4,390,000 (\$5,020,000), whereas the mean allowance for firm-wide profit explicit (implicit) pressure conditions are \$5,052,083 (\$5,297,619). The descriptive statistics for the dependent variable in the four experimental conditions and the ANOVA results are shown in Table 1.

H1 predicts that auditors are willing to accept a lower allowance for obsolete inventory in divisional scheme conditions than auditors in a firm-wide scheme condition without breaching the materiality threshold. The ANOVA result shows a significant main effect for the performance-based profit-sharing scheme variable ( $F = 4.317, p = 0.021$ , one-tailed). The result provides support for H1. The finding supports the arguments put forward by academic researchers (Trompeter, 1994; Wyatt, 2004; Zeff, 2003) in the current strict inspection regime (i.e., post-SOX era). The result also supports the cautionary advice from a regulatory body (IAASB 2014) that financial considerations given to auditors, especially audit partners should not impede the quality of financial statements. The implication of this result is that the profit-sharing schemes variable affects the mindset of auditors in the current auditing environment. It seems that the financial (i.e., economic) motivation will influence auditors, especially audit partners to act as motivated reasoners. The arrangement of profit-sharing schemes may influence auditors’ mindset in such a manner that audit partners may be motivated to accept client-preferred accounting treatments and satisfy the expectations of client management.

H2 predicts that auditors are willing to accept lower audit allowance for obsolete inventory in explicit pressure conditions than auditors in implicit pressure conditions without breaching the materiality threshold. The ANOVA result shows a significant main effect for client pressure ( $F = 3.748, p\text{-value} = 0.028$ , one-tailed). The result provides support for H2. The result is consistent with the findings by Hatfield et al. (2011). The finding implies that auditors may act as motivated reasoners and acquiesce to client pressure even in the post-SOX era. The finding also supports the discussion by Nelson (2006) that SOX-related reforms may be inadequate to mitigate client pressure. It seems that pressure exerted by clients may influence experienced auditors to act as motivated reasoners. The client pressure may impact auditors’ mindsets in such a manner that they will be inclined to accommodate the wishes of client management.

For H3, the ANOVA result shows the interaction between profit-sharing schemes and client pressure is statistically insignificant ( $F =$

**Table 1**  
Effects of Profit-sharing schemes and Client pressure on Pre-negotiation Positions.<sup>a</sup>

Panel A: Descriptive statistics			
Profit-sharing schemes <sup>b</sup>	Client pressure <sup>c</sup>		
	Implicit	Explicit	Average
Divisional scheme			
Mean	5,020,000	4,390,000	4,705,000
(S.D.)	(997,184)	(803,897)	(900,541)
Sample size	25	25	25
Firm-wide scheme			
Mean	5,297,619	5,052,083	5,174,851
(S.D.)	(1,406,723)	(1,160,910)	(1,283,817)
Sample size	21	24	23
Average			
Mean	5,158,810	4,721,042	4,939,926
(S.D.)	(1,201,954)	(982,404)	(1,092,179)
Sample size	46	49	48

Panel B: ANOVA results			
Independent variable	df	F	p-value (one-tailed)
Profit-sharing schemes	1	4.317	0.021
Client pressure	1	3.748	0.028
Profit-sharing schemes X Client pressure	1	0.723	0.199

Panel C: Planned contrast			
Overall test for H1: assigned contrast weights: -3 to the divisional scheme and explicit pressure condition, -1 for the divisional scheme and implicit pressure condition, +2 for both the firm-wide scheme and explicit pressure and firm-wide scheme and implicit pressure groups	df	F	p-value (two-tailed)
	3	2.948	0.037

Panel D: Simple main effects			
	df	F	p-value (two-tailed)
Simple main effect of client pressure on profit-sharing schemes			
Divisional profit	1	4.106	0.046
Firm-wide profit	1	0.559	0.457
Simple main effect of profit-sharing schemes on client pressure			
Implicit pressure	1	0.728	0.396
Explicit pressure	1	4.443	0.038

<sup>a</sup> The dependent variable is the allowance for obsolete inventory auditors would be reporting in the client's financial statements without qualifying their audit opinions.

<sup>b</sup> Profit-sharing schemes manipulated at two levels: divisional scheme (coded 0) and firm-wide scheme (coded 1).

<sup>c</sup> Client pressure manipulated at two levels: implicit pressure (coded 0) and explicit pressure (coded 1)

0.723,  $p = 0.199$ , one-tailed). However, in the study by [Fu, Tan, and Zhang \(2011\)](#), the authors performed a planned contrast analysis despite having an insignificant interaction effect between the auditor's negotiation experience and the client's negotiating style to support their predicted interaction. They argued that their prediction involved an ordinal interaction, so they used the planned contrast method to support their hypothesis. They also used custom contrast coding (i.e., -3, -1, +2, +2) based on prior literature ([Buckless & Ravenscroft, 1990](#); [Rosnow & Rosenthal, 1995](#)). A recent study by [Van Brenk et al. \(2021\)](#) also used planned contrast (+4, -1, -1, -2) to support their hypothesis on joint effects of profit-sharing plans and client importance, even though their interaction effect was insignificant.

As we had an a priori prediction that client pressure will be mitigated

by a firm-wide scheme and based on the observation of means for obsolete inventory allowance shown in [Table 1](#), there is an indication of interaction between the two variables. Following the prior study by [Fu et al. \(2011\)](#), this study also uses the contrast weights of -3 for the divisional scheme and explicit pressure group, -1 for the divisional scheme and implicit pressure group, +2 for the firm-wide scheme and explicit pressure group, and +2 for the firm-wide scheme and implicit pressure group. The planned contrast results of this study show there is a significant interaction effect between profit-sharing schemes and client pressure ( $F = 2.948$ ,  $p = 0.037$ , two-tailed) which is consistent with our prediction, in H3. Further analyses reveal that the simple main effect of client pressure on the divisional scheme is statistically significant ( $F = 4.106$ ,  $p = 0.046$ , two-tailed) whereas the simple main effect of client pressure on the firm-wide scheme is insignificant ( $F = 0.559$ ,  $p = 0.457$ , two-tailed). Similarly, the simple main effect of the profit-sharing scheme on the explicit client pressure is statistically significant ( $F = 4.443$ ,  $p = 0.038$ , two-tailed) whereas the simple main effect of profit-sharing schemes on the implicit client pressure is insignificant ( $F = 0.728$ ,  $p = 0.396$ , two-tailed). The contrast results and the graphical depiction in [Fig. 1](#) suggest that the interaction effect is statistically significant which is consistent with the prediction in H3.

We ran additional analyses with demographic variables as covariates: position of auditor participants ( $p = 0.941$ ) experience ( $p = 0.610$ ), gender (0.114), accounting firm (0.507), and frequency of resolving audit differences ( $p = 437$ ). We did not find any of the demographic variables affect behaviour of the participants. For brevity purposes we do not tabulate the findings on the 5 covariates.

## 6. Concluding remarks

This paper consists of an experimental study examining the behaviour of experienced auditors in an identical negotiation setting. This study uses a scenario-based questionnaire method to investigate the behaviour of experienced auditors from the US. This study examines the impact of profit-sharing schemes and client pressure on auditors' proposed allowance for obsolete inventory in a pre-negotiation phase. The results highlight the concession-making mindsets of experienced auditors in all four experimental conditions. It shows that there is a tendency among experienced auditors to partially waive audit adjustments and satisfy the expectations of client management. This study tests the theory of motivated reasoning to explain auditors' concession-making mindset in a pre-negotiation phase. In our questionnaire, we elicit a real audit scenario where the client is explicitly pressuring and or exhibiting a hostile attitude towards auditor participants to waive the proposed audit adjustment. The auditor participants would not face any adverse financial consequences if they did not concede from their proposed audit allowance. Our results indicated, that even if the questionnaires elicit real scenario auditor participants had no reason to concede from their position, motivated reasoning suggests that participants will be unable to detach themselves from their assigned roles as audit partners in making such decisions.

We note certain limitations of this experiment. First, this study focuses only on one dimension of profit-sharing schemes, that is, client retention and generation of future revenue. In audit practice, the performance-based profit-sharing schemes of audit partners are based on various parameters, for example, leadership, people development, operational excellence, and client service ([Coram & Robinson, 2017](#)). Second, the manipulation of the profit-sharing scheme variable may induced artificial demand effects but an attempt was made to minimise artificial demand effects by emphasising to participants before they commenced their tasks that there was no right or wrong answer. Furthermore, the participants are experienced auditors (i.e., audit managers and above) as [Bamber \(1983, p. 404\)](#) stated "Audit managers are experienced and successful professionals who have little motivation for providing misleading responses and are unlikely to be intimidated by the experimental task." Third, experiments are generally well-suited to

test theories, rather than simulate reality. That is why both studies in this thesis follow the sine qua non of experimentation to alter two factors at a time while controlling for other factors that could complicate causal inferences. In practice, the decision to waive or record audit adjustments also depends on other factors such as the assessment of engagement risk and deadline of the engagement. Fourth, this thesis did not investigate the role of the audit committee in an auditor-client negotiation setting. In the current institutional arrangement, audit committees are entrusted to hire and pay auditors and resolve disputes between auditors and client management. Future researchers may investigate the role of audit committee members in auditor-client negotiation settings. It will enrich the negotiation literature in auditing if researchers can design experiments that capture triadic interactions between auditors, members of the audit committee, and, client management.

Future research could investigate whether auditors' pre-negotiation behaviour will change in the negotiation phase when auditors negotiate with a real client. The negotiation with a real client may be either face-to-face or through a computer-mediated communication mechanism. Auditors are increasingly relying on computer-mediated communication (CMC) with clients (Baltes, Dickson, Sherman, Bauer, & LaGanke, 2002; Brazel, Agoglia, & Hatfield, 2004). For example, social presence theory predicts the degree to which the communication mode indicates another person is "present" affects individual behaviour (Short, Williams, & Christie, 1976). It is expected the extent to which the social behaviour (i. e., negotiated outcome with a simulated CFO) corresponds with actual behaviour depends on whether the environment suppresses or reinforces the social presence necessary to reflect actual behaviour. Future research may specifically design experiments that employ face-to-face interactions between auditors and client management. The reason is prior studies (Bazerman, Curhan, Moore, & Valley, 2000; Bennett & Hatfield, 2018) observed that face-to-face interactions maximise "social presence" more than computer-mediated (e.g., email-based) interactions. Future studies could employ confederates (representing client management) similar to prior studies (Bennett & Hatfield, 2013, 2018; Saiewitz & Kida, 2018) to examine auditors' behaviour. However, it is to be acknowledged that confederates act on behalf of researchers, and therefore, the role of confederate is scripted beforehand. Still, the nature of the experiment will be far richer than the experiment involving computer simulation. Another fruitful area of auditor-client negotiation research would be to incorporate experimental economic designs that often examine multiple parties (e.g., auditor, client management) at the same time rather than holding one party constant (Kachelmeier, 2018). Besides, a future study may experimentally investigate the timing of pressure during auditor-client negotiation. For example, an explicit (implicit) pressure exerted by the client at the beginning (end) of the negotiation may have a differential effect than explicit (implicit) pressure exerted at the end (beginning).

#### Declaration of competing interest

There is no conflict of interest.

#### Data availability

The data that has been used is confidential.

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