

Summary

This dissertation is a study of the joint effects of compensation incentives and auditors' personality traits on their judgment and decision making. The remuneration of auditors is an important topic, as incentives in compensation schemes can have a negative impact on the objectivity of an auditor's judgment and, concomitantly, audit quality (Eumedion, 2010; IAASB, 2014; Knechel et al., 2013b; Wyatt, 2004; Zeff, 2003). An example of this is the evaluation and remuneration of audit partners based on their own performance. This stimulus encourages audit partners to focus on their own short-term interest, possibly at the expense of the long-term interest of the organization they work for. For this reason, regulators and professional organizations are looking for measures to minimize the negative impacts of these incentives as much as possible (IFAC, 2009; NBA, 2014). Audit firms responded to this by taking into account performance indicators for audit quality in relation to the remuneration of professionals (AFM, 2015, 2017; EY, 2015; KPMG, 2015; PwC, 2015). This was done based on the assumption that all auditors respond to compensation incentives in the same way. However, this assumption disregards the effect of personality traits. Prior research in psychology shows that individuals respond differently to compensation incentives due to differences in personality and that behavior is determined by a combination of the person and the situation (Cable & Judge, 1994; Judge & Zapata, 2015; Kihlstrom, 2013; Bonner & Sprinkle, 2002; Stewart, 1996). In this dissertation, I therefore explore the combined effect of compensation incentives and personality traits on the judgment and decision making of auditors in three different studies.

This study is unique because I take the view that—in order to improve audit quality—account must be taken of both the situation and the person. This adds an important angle to the process of change taking place in the accountancy sector as launched after the publication of the Dutch report *In het Publiek Belang [In the Public Interest]* by the *Werkgroep Toekomst Accountantsberoep* [Taskforce 'The Future of Accountancy'] (NBA, 2014). This report describes 53 (situation-oriented) measures that audit firms can implement in order to improve the quality and independence of auditing. However, the results of the three studies discussed in this dissertation demonstrate that measures regarding compensation incentives have a different effect on auditors' judgment and decision making depending on their personality. Introducing generic measures, therefore, is not enough, as auditors derive motivation and stimulation from different

sources based on differences in personality. Therefore, the *Monitoring Commissie Accountancy* [Accountancy Monitoring Committee] (MCA, 2016) also advocates “a more adaptive approach focusing on intrinsic motivation instead of the ... so often applied technocratic and compliance-oriented approach” (p. 8). Several recent studies provide evidence that, even when the same standards and guidelines are applied within an audit firm, a different level of audit quality is achieved between audit partners (Gul et al., 2013; Knechel et al., 2015). Therefore, it is important to investigate which measures are conducive to improvement in audit quality in what people.

In the first study in this dissertation (Chapter 2), I focus on interest alignment and the sensitivity to both rewards and punishments (“reinforcement sensitivity”). The interests of the audit partner and audit firm are aligned—and benefit the organization—if the audit partner’s profit sharing is based on firm performance and the audit partner is involved in the auditing of a small client. This situation encourages audit partners to pursue the long-term interest of the firm as reflected in conservative reporting decisions. I expect this effect to be enhanced if audit partners score high on reinforcement sensitivity. In the second study (Chapter 3), I focus on the effect of profit sharing on audit partners’ reporting decisions and how it is influenced by personality traits. In this context, I compare the decision making of participants with and without profit sharing and investigate the influence of five personality traits. In the third study (Chapter 4), I focus on the effects of stimuli aimed at improving audit quality and how they are influenced by an auditor’s personal drive. The stimuli concerned are a bonus for audit quality and pressure of an audit engagement that encourages participants to improve audit quality. This engagement pressure is reflected in the urgency of the need to carry out additional audit work while the auditor in question is faced with a high time (budget) pressure. Drive is a personality trait related to autonomous or intrinsic motivation.

The data for these three studies were taken from two experiments I conducted among 989 auditors, both at Big Four and non-Big Four audit firms in the Netherlands. On average, these participants have 11.7 years of auditing experience and their job level is ranging from audit partner to assistant. In the first experiment, profit sharing and client importance were manipulated. Profit sharing I manipulated as a fixed percentage based on firm performance or a variable percentage based on the profitability of audit engagements in the audit partner’s client portfolio. Client importance I manipulated as a small client, where the audit fee was three

percent of the audit partner's total client portfolio, or as a large client, where this was 30 percent. In addition, there was a control group in which no information was given concerning the profit sharing and client importance.

In the second experiment, I manipulated an audit quality bonus, with one half of the participants receiving a so-called bonus in the case of positive outcomes from the engagement quality control review. For the other half, the outcomes of this quality assessment had no effect on remuneration. In addition, I manipulated the engagement pressure as high or low. In the situation of high pressure there was an audit engagement that was badly planned and executed, with little time left to carry out additional audit work, and the budget for completing the audit was difficult to achieve. In the low-pressure situation, there was little stimulus to improve audit quality, as the audit was planned and executed well, there was a lot of time left to carry out additional work and the audit budget was easy to achieve.

I have measured auditors' personalities on the basis of the Dutch version of the NEO-Five-Factor Inventory-3 (NEO-FFI-3). Based on 60 items, this questionnaire measures five personality traits: neuroticism, extroversion, openness, agreeableness, and conscientiousness. For the third study, auditors' personal drive was measured using the Dutch version of the BIS/BAS questionnaire. This questionnaire measures the sensitivity to punishments (BIS: Behavioral Inhibition System) and rewards (BAS: Behavioral Approach System) based on 24 items. Drive is a sub-scale within the BAS. Both the NEO-FFI-3 and the BIS/BAS questionnaires have been validated in the psychological literature (Carver & White, 1994; Corr, 2009, 2016; Hoekstra, Ormel, & De Fruyt, 2012; Franken, Muris, & Rassin, 2005; McCrae & Costa, 2010).

In the first and second studies, auditors' decisions are evaluated based on (1) the extent of the adjustment that participants believe should be implemented in the annual financial statement and (2) the participants' tendency to modify the audit opinion if the client is not willing to implement the adjustment. The results of the first study demonstrate the importance of interest alignment, as it appears that participants take the most conservative decisions when the interests of audit partner and audit firm are in line. This effect is also enhanced if reinforcement sensitivity is taken into account. The results of this study show that a fixed profit sharing for audit partners based on firm performance does not contribute in all situations to conservative decision making in the long-term interest of the audit firm. In the context of this study, this positive effect occurs only in the case of small clients and if the audit partner is sensitive to both

rewards and punishments. Further research is needed to gain more insight into how audit partners can be encouraged if they perform an audit engagement for a large client or are less sensitive to rewards and/or punishments.

The results of the second study show that profit sharing and variable pay undermine conservatism for open and intrinsically motivated participants (high score on openness). With regard to the other measured personality traits—neuroticism, extroversion, agreeableness, and conscientiousness—I have not found any joint effects with profit sharing. It is therefore important that audit firms are aware of the undermining effect compensation incentives have on the decision making of auditors with a high degree of openness. Further research is necessary to gain insight into the measures that can be taken to prevent the motivation and performance of these professionals from being undermined.

In the third study, auditors' decisions were evaluated on the basis of an indication of additional audit procedures to be carried out in response to a potential error in a client's annual financial statement. A panel of experts has scored the effectiveness of these procedures aimed at improving audit quality per test. The results of this study show that the bonus and/or high engagement pressure lead(s) to improved audit quality for low-drive participants, but to a deterioration of audit quality for high-drive participants. In addition, an additional analysis shows that a majority of auditing professionals have a higher score on drive than the midpoint of the measurement scale (i.e., many auditors have a higher drive than average). The effectiveness of audit quality bonuses is therefore limited in their current form. Further research is needed to gain insight into alternative types of quality bonuses and the possibility of stimulating auditors' intrinsic motivation.

The results of the three studies surveyed in this dissertation demonstrate that compensation incentives can make a positive contribution to stimulating auditors to improve audit quality. However, the results show that these effects are dependent on the situation (e.g., a client's importance) and the person (e.g., their degree of autonomous motivation). It is therefore important that audit firms take into account these factors when adjusting the compensation system of audit partners and other professionals to improve audit quality. Instead of applying generic remuneration measures for all auditors, it is better to recognize the diversity in personalities, motivations, and circumstances and to implement measures tailored to a specific context. In line with the conclusions of the MCA's first report (2016), it is useful to further

investigate other ways to encourage intrinsically motivated auditors to improve audit quality, as compensation incentives have an adverse effect on these professionals. A recent study by Kadous and Zhou (2016) is a first step in this direction, as these authors demonstrate that stimulating intrinsic motivation leads to an increase in auditors' professional skepticism when it comes to judgment and decision making.

This dissertation constitutes a contribution to science in several ways. Firstly, I am responding to various calls in the literature to investigate the effects of audit partner profit sharing (Bedard et al., 2008; Knechel, et al., 2013b; Liu & Simunic, 2005). Previous research into this audit quality input variable is scarce and focused on profit sharing based on firm or office level performance (Carcello et al., 2000; Trompeter, 1994). This dissertation constitutes an expansion of the existing literature in the sense that it examines profit sharing at the level of the audit partner (individual performance). This is important because decision making takes place at an individual level. Secondly, I address various calls in the literature for research in the area of auditor personality traits, which is also a potential audit quality input variable (DeFond & Zhang, 2014; Hurtt et al., 2013; Nelson & Tan, 2005). By examining various compensation incentives and personality traits, this dissertation provides an insight into the extent to which both factors jointly affect auditors' judgment and decision making. Thirdly, this dissertation provides insight into the effectiveness of audit quality bonuses. This is relevant, as such a bonus is part of the current remuneration policy of Big Four audit firms and is assumed to contribute to improving audit quality (PCAOB, 2012, 2015; Peecher et al., 2013). Finally, this dissertation addresses various calls in the psychological literature for research into the combination of sensitivity to rewards on the one hand and sensitivity to punishments on the other (Corr, 2004, 2013; Smillie et al., 2006). This combined effect is particularly important in an environment involving mixed stimuli. Audit partners work in such an environment, as they are confronted both with incentives related to punishments (reputation and liability issues) and with incentives related to rewards (attracting new engagements).

When it comes to interpreting the results of this dissertation, it is important to realize that I have made choices when designing my studies that entail some limitations. Firstly, I have made simplifications in the manipulations of compensation incentives. In the manipulation of fixed profit sharing, the seniority of the audit partner has not been taken into account, though in practice the profit share often increases with an increase in experience. In the manipulation of

variable profit sharing, only one performance indicator has been used, i.e., the profitability of the audit partner's client portfolio. In practice, there are often multiple indicators that affect remuneration. The audit quality bonus manipulation was based on performance in the context of only one engagement, while in practice bonuses will often be awarded based on performance across multiple engagements. Secondly, I collected the data using Qualtrics' online application. The advantage of this is that it has allowed me to gain access to a large population of experienced auditors. The disadvantage of this method is that participants may have been less accurate in answering the questions due to reduced focus on the task examined in the experiment, for example due to workload, an incoming call, or other types of noise.