

JORIEN LOUISE PRUIJSSERS

An Organizational Perspective on Auditor Conduct



An Organizational Perspective on Auditor Conduct

An Organizational Perspective on Auditor Conduct

Een organisatorisch perspectief op auditorgedrag

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PREFACE

Writing this thesis is probably the most challenging thing I have done in my 27 years of life. Although only my name appears on the cover of this book, this book would not have been produced without the contributions of several people. I am indebted to those people who were there for me during my PhD. It is not only because of their tremendous support that this thesis exists today, but also, and more importantly perhaps, it is because of them that I will keep a fond memory of my PhD.

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Before starting my PhD, I had been warned about the solitude doing research could entail. I am truly fortunate to say that my PhD has been everything but lonely. Of course, I spent many hours alone at my desk, reading articles, jotting down ideas on pieces of scrap paper, and staring at my screen, while my computer was staring back at me. Yet, in this process I have been surrounded by a fine bunch of fellow PhDs, whom today I am proud to call my friends. Saskia, Tante Saar, thank you so much for a vega-enjoyable PhD journey. Together we shared so many laughs, teas, wines, and vegetables (!), for which I am so very grateful. You definitely kept my blood pressure, sugar and vitamin levels at acceptable degrees. Julija, my dear J, you have been an exceptional friend all these years. I will always remember our celebrations with our favourite bubbly while wearing our nicest dresses. Thank you for being my confidant, and really supporting me all along. I am so happy to have you as a friend. Push, my partner in crime at conferences in San Antonio and Helsinki, thank you for all our laughs, and for the support! Our friendship means a lot to me. Teodor, Dr. T, thank you for the wake-up calls about life, for the drinks out and about in Rotterdam, and for always bringing your delightful ‘peasantly’ presence. Yannis, thank you for being so real and such a good friend. Amir, the last year and a half of my PhD would definitely have been a lot less fun without you. I am very glad to call you my friend. To my other fellow PhDs and friends, Steffi Peer, Basak, Maartje, Roxana, thank you for the shared talks, drinks, offices, and apartments.

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I dedicate this work to my grandmother, Meme, who left us too soon. I hope this work makes you proud.

“Même pour l’envol d’un papillon, tout le ciel est nécessaire” (Paul Claudel, 1868-1955)

Jorien L. Pruijssers
February 2015, Montreal

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CHAPTER 1. GENERAL INTRODUCTION

Towards an Organizational Perspective on Auditor Conduct

It came as no surprise that in late 2014 the Dutch Authority of the Financial Markets (AFM) announced that 45% of controlled public interest audits in the Netherlands were conducted below the required standards. In a year in which charges were brought against KPMG for bribery and tax evasion, and PwC's private investment club was discovered and subsequently dismantled, it became clear that auditors frequently forego professionalism in favor of profit maximization. In a profession in which the public interest should prevail over self-interest, these developments have tarnished the public's confidence in auditors' ability to provide independent judgment of a company's financial disclosures. These recent developments have reinvigorated some old debates and raised some new questions about auditor behavior.

Almost a decade ago, serious auditing irregularities stressed the highly consequential societal risks associated with auditor misconduct. As a result, regulators, professionals, and academics alike struggled with two fundamental questions: (a) what are the drivers of auditor misbehavior? and (b) what are potential remedies to safeguard auditor integrity? In pinpointing the tensions between professional and commercial interests as drivers for misbehavior, auditing regulators had to react quickly due to mounting public pressure. In an attempt to restore confidence in the audit, European and American regulation was tightened in order to reinstate a balance between competing norm sets and objectives. This resulted in the implementation of stricter rules concerning auditor independence and the provision of certain non-audit services. The adoption of these regulations might have been too quick in the sense that regulators had not conducted sufficient research into the underlying drivers of auditor behavior. Moreover, they neglected available academic research that specifically refuted the association between impaired auditor independence and the provision of non-audit services (Ashbaugh, LaFond, & Mayhew, 2003; DeFond, Raghunandan, & Subramanyam, 2002; Kinney,

Palmrose, & Scholz, 2004). The recent Dutch evidence questions whether the stiffer regulations have been able to prompt the required behavioral changes. As such, the longstanding questions relating to the drivers of auditor behavior and the potential remedies for safeguarding auditor integrity persist.

The recent developments in the Netherlands, however, have also fueled new questions. Dutch audit firms, the professional association, and the AFM have now come to realize that internal organizational remedies (instead of tighter external regulations) are probably the most effective way to restore a sound balance between the commercial and professional pressures affecting the audit industry. Their conclusion is not only based on the apparent lack of success of external regulation, but also on the notion that change originating from within audit firms could signal the auditors' renewed commitment to their societal gatekeeping role. They expect that internal organizational practices can have a greater impact on auditor behavior than external regulations because of the proximity of the organization to the auditor. Despite this new drive to find organizational remedies, not much is known about the organization of audit firms (Jenkins, Deis, Bedard, & Curtis, 2008). Researchers and practitioners need to know which existing organizational practices trigger professional behavior; which existing organizational practices trigger auditor misbehavior; which new organizational practices could foster professional behavior; and, in short, how the audit firm should be designed in order to ensure auditor integrity.

By incorporating these old and new questions into a comprehensive analysis, this dissertation provides an innovative and contemporary perspective on auditor behavior. In particular, the three studies included in this dissertation provide compelling evidence that the organizational context of audit firms can have a significant impact on auditor (mis)behavior. Given the unavailability of public data on audit firm organization and auditor conduct, three separate field studies were conducted over the course of 2011-2013 in the Netherlands, Belgium, and Germany. The contributions of this dissertation lie in its distinctive organizational perspective on auditor behavior and in its interdisciplinary use of economic, managerial, and auditing literatures to make sense of auditor behavior. The

collection of unique field and organizational data further heightens the originality of this dissertation's contributions.

Organizational context of audit firms

All audit firms are professional partnerships (Greenwood & Empson, 2003). This implies that audit firms do not have mandatory disclosure obligations and therefore that non-firm personnel know very little about the organizational context of audit firms (Jenkins et al., 2008). What is known is that human capital is the most important resource in audit firms (Greenwood, Li, Prakash, & Deephouse, 2005). Just like any other organization, audit firms adopt organizational practices that shape the opportunities and constraints for individual behavior (Bowen & Ostroff, 2004). However, unlike other types of organizations, audit firms combine organizational practices with conflicting professional and commercial objectives (Cooper, Hinings, Greenwood, & Brown, 1996). The resulting incoherence of underlying opportunities and constraints for auditor behavior can trigger, often unwanted and unintended, behavioral consequences. The three studies included in this dissertation analyze different organizational practices in order to understand how the organizational context of audit firms influences auditor behavior. This knowledge is critical for designing more appropriate organizational remedies for audit firms.

Interdisciplinary perspective on auditor behavior

This dissertation draws on economic and managerial literatures to show that audit firms can have a powerful influence on auditor behavior. The studies in this dissertation use theoretical arguments grounded in agency and organizational theories in order to explain auditor behavior. In particular, stakeholder-agency theory, tournament theory, and the literature on institutional logics each provide a unique perspective on why certain organizational practices influence auditor behavior. This dissertation, therefore, provides evidence that managerial and economic theories are complementary in understanding auditor behavior in the sense that theoretical arguments rooted in organizational and

agency theories can explain relevant academic questions and societally important audit phenomena.

Dissertation Overview

Study 1: Organizational antecedents of gatekeeper failure: a stakeholder-agency model

Gatekeeper failures are a persistent and endemic feature of the modern business environment. The dominant response to remedy these failures has been to tighten regulation on the provision of gatekeeper services (Bayou, Reinstein, & Williams, 2011). A striking fact about the regulatory reforms is that relatively little attention is paid to the organizational context of gatekeeping firms. This is a serious omission because organizational factors may be potential causes for gatekeeper failure, and because organizational practices could be potential remedies to gatekeeper failure. This first study sets the stage for the overarching research aim of this dissertation by paying close attention to the organizational challenges facing gatekeepers, and auditors in particular.

This study draws on stakeholder-agency theory (Hill & Jones, 1992) to develop a theoretical model explaining auditor failure. The model identifies the organizational antecedents of auditor failure as well as the organizational remedies to auditor failure. In particular, auditor failure is conceptualized in terms of auditor agency problems that result from the relationships auditors have with clients and third party beneficiaries (Greenwood & Empson, 2003; Herrbach, 2001; Sharma, 1997). This study then traces gatekeeper agency problems to organizational factors, such as the economic dependence and the profit orientation of audit firms (Beattie, Brand, & Fearnly, 1999; O'Keefe, Simunic, & Stein, 1994; Zeff, 2003). These organizational factors are believed to establish the organizational fault-lines of the two external agency problems audit firms have. The theoretical model further incorporates corporate governance practices audit firms can use to mitigate these agency problems, such as client retention and internal transparency policies (Gendron, 2002; Kaptein, 2008). In all, this model allows us to understand why auditor failures occur and how they can be remedied.

To empirically test the foundational tenets of our theoretical model we used advanced survey techniques to analyze data collected amongst Dutch audit firms (Kline, 2010; Ping, 2006). Our findings strongly support our theoretical claims. Specifically, we find that the economic dependence and the profit orientation of audit firms increase the risk of gatekeeper agency problems materializing in the relationships audit firms maintain with their clients and beneficiaries. We also show that specific governance practices audit firms feature, such as client retention policies and internal transparency practices, reduce the risk of gatekeeper agency problems.

From this, we conclude that effective remedies to combat auditor failures reside at the level of the audit firm (Jenkins et al., 2008). In the face of potentially ineffective regulatory and enforcement measures (Wyatt, 2004), it is nothing but common sense to explicitly target and scrutinize governance mechanisms nested in the organizational context of audit firms themselves. It is within these firms that sanctions and rewards can most directly be connected to auditors' behaviors, while firm-level controls are considerably closer to the audit process than external controls could ever be. We therefore contribute to the audit literature by showing that an exclusive reliance on regulatory reforms may not be sufficient (Bayou et al., 2011; Sikka, 2009).

Study 2: Winning at a losing game? Adverse behavioral consequences of tournament-like promotion systems

The second study zooms in a specific organizational practice of audit firms to analyze its behavioral implications. In particular, this study analyzes tournament-like promotion practices. The central tenet of tournament-like promotion practices is that contestants compete for a prize (i.e. a promotion) that is awarded based on relative rank rather than absolute performance (Connelly, Tihanyi, Crook, & Gangloff, 2013; Lazear & Rosen, 1981). The study establishes that (unintended) detrimental behaviors result from this rank-order based promotion practice. This has implications for the design and use of such promotion systems in audit firms.

While prior research suggests that tournament-like promotion systems provide high-powered incentives to employees to maximize work effort (Becker & Huselid, 1992; Conyon, Peck, & Sadler, 2001), a less frequently acknowledged consequence of tournament-type incentives is that they can also trigger self-interested and strategic behaviors (Dixit, 1989; Harbring & Irlenbusch, 2008; Lazear, 1989; Rankin & Sayre, 2011). By building on tournament theory (Lazear & Rosen, 1981; Rosen, 1986; Rosenbaum, 1979), this study develops a theoretical framework that enables the comprehensive study of the behavioral consequences of tournament-like promotion systems in audit firms. This model identifies two powerful design parameters of tournament-like promotion systems that can trigger self-interested and strategic behaviors. That is, the level of competitive intensity (Connelly et al., 2013; Harbring & Irlenbusch, 2003; Lazear & Rosen, 1981) and the size of the prize of partnership (Connelly et al., 2013; Ridge, Aime, & White, 2014) are thought to induce auditors to either increase their own performance by engaging in self-interested behaviors (Henderson & Fredrickson, 2001; Hvide & Kristiansen, 2003) or to behave strategically by undermining the performance of their competitors (Dixit, 1987; Harbring & Irlenbusch, 2008; Lazear, 1989). This comprehensive analysis unpacks the mechanisms of why and how tournament-like promotion systems can trigger (unintended) detrimental behaviors in audit firms.

A large-scale survey amongst non-partnered Dutch, Belgian, and German auditors allows us to apply, test, and extend tournament theory to a highly relevant organizational context. The non-partnered auditors are of interest because they face the tournament-like promotion pressures. The findings support our contention that the design parameters of tournament-like promotion systems affect auditor behavior. More specifically, the empirical results show that the level of competitive intensity triggers self-interested and strategic behaviors. In contrast to the predictions, however, the findings establish that the size of the prize of partnership actually reduces strategic behavior and has no effect on self-interested behaviors.

By analyzing the conduct-related consequences of the structure and the implicit incentives of audit firms' promotion schemes, this study refines our understanding of the influence of the organizational context on auditor behavior (Francis, 2011; Pierce & Sweeney, 2004). This stream of research is relatively rare, especially outside the US. The available scholarly work has mainly researched audit firms' incentive structures at the partner level (Knechel, Niemi, & Zerni, 2013; Liu & Simunic, 2005). Equally important, however, is to understand the link between the promotion structure and non-partner behavior because non-partner behavior will affect non-partner work. Given that non-partner work is the ultimate input for the partner's sign-off decisions, audit quality may be ultimately affected.

Study 3: Logics under pressure: how strategic responses to institutional complexity undercut institutional microfoundations.

The last study in this dissertation provides a wider institutional perspective on audit firm design and auditor behavior. It is one of the first to develop and test theoretical predictions on how competing institutional demands can influence individual-level behaviors. Specifically, this study explains the organizational mechanism of how the complex institutional environment of audit firms influences auditor behavior.

By building on the institutional logics literature (Friedland & Alford, 1991), this study investigates how audit firms internally manage competing institutional logics -or institutional complexity- and on how these strategic organizational responses affect individual auditor behavior. While prior institutional research has generated insight on the organizational level strategic responses to institutional complexity (Battilana & Dorado, 2010; Kraatz & Block, 2008; Oliver, 1991; Reay & Hinings, 2009), much less is known about the individual level behavioral implications of institutional complexity (Greenwood, Hinings, & Whetten, 2014). This study suggests that to reconcile the competing institutional demands of the professional and the commercial logics, audit firms selectively adopt organizational practices embedded in both logics (Cooper et al., 1996). This selective

combination of practices can have a distorting effect on auditor behavior. That is, the availability of alternative behavioral signals will result in auditors questioning the legitimacy of previously taken-for-granted professional behaviors (Greenwood, Suddaby, & Hinings, 2002; Maguire & Hardy, 2009; Thornton, 2002). This will trigger institutional disruption behaviors which undercut the microfoundations of the professional logic (Empson, Cleaver, & Allen, 2013; Jazarkowski, Matthiesen, & van de Ven, 2009; Lawrence & Suddaby, 2006).

A field study amongst Dutch, Belgian, and German audit firms allows us to test our theoretical predictions. The findings indicate that practices stemming from the professional and commercial logics are selectively combined in order to reconcile and balance institutional demands. The findings further show that the strategic adoption of practices stemming from the commercial logic triggers disruption behaviors that undercut the microfoundations of the professional logic and can thus undermine the gatekeeping role of the auditor.

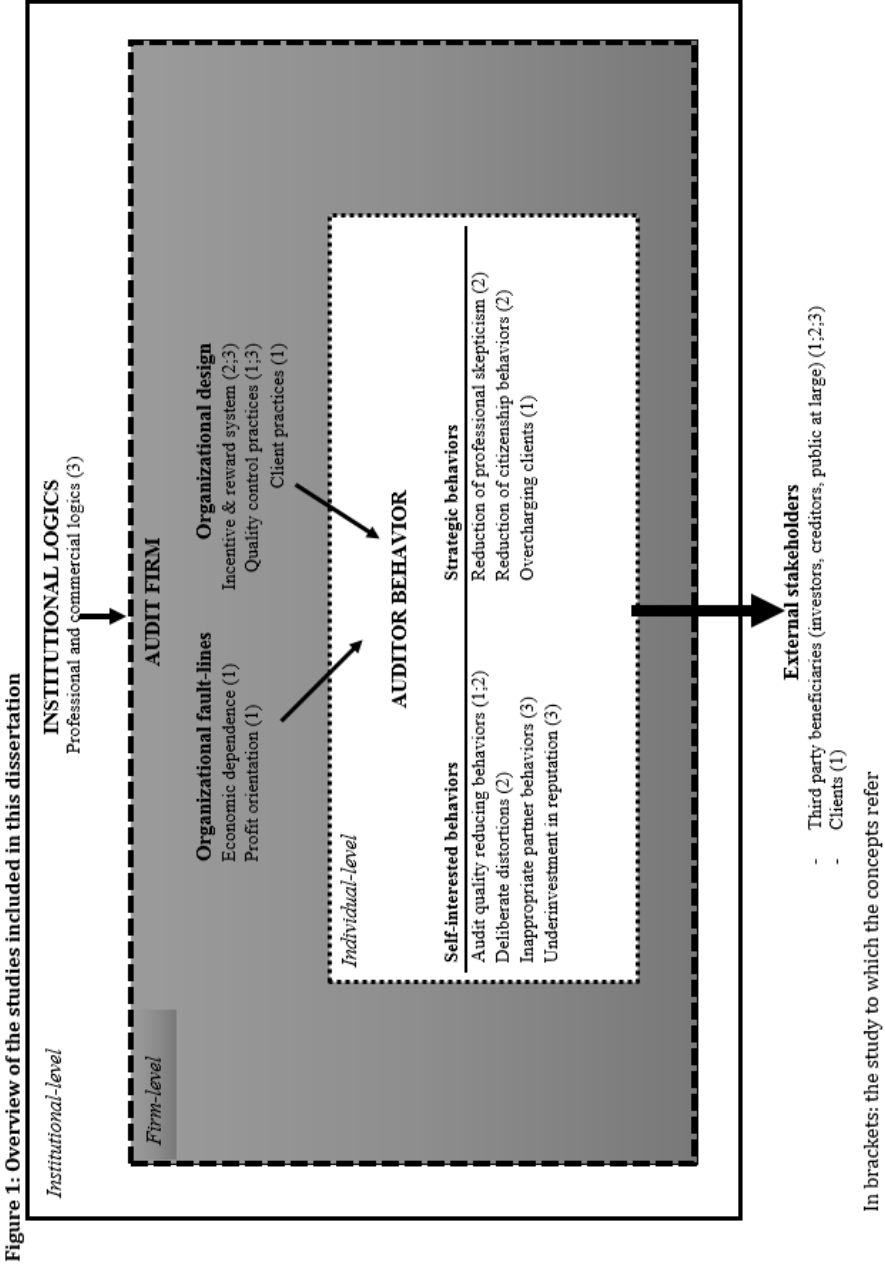
This study therefore concludes that adopting commercial practices in a traditionally professional organization can often unwantedly and unwittingly undercut the gatekeeping role of the auditors. This implies that auditor failure cannot only be prevented through regulatory reforms. Instead, auditor failure could be prevented by adopting organizational practices aimed at restoring the adherence to the professional logic that is under threat of being supplanted by the commercial logic.

An Organizational Perspective on Auditor Conduct

Overall, the studies in this dissertation aspire to hone our knowledge on the antecedents of and remedies to auditor misconduct. The three studies demonstrate that a crucial factor with respect to understanding auditor conduct pertains to the -often neglected- organizational context of audit firms. The compelling evidence of the significant impact of the audit firm's organizational context on auditor (mis)behavior provides three timely,

practical, realistic, and scientifically robust reflections about the future of the auditing profession.

First, rather than treating the symptoms of auditor misconduct by limiting the type of work auditors can perform, understanding the underlying organizational antecedents of auditor misbehavior is fundamental in order to structurally eliminate the source of the problem. The frequently forgotten organizational factor of audit firms provides convincing explanations for auditor failures as well as potentially powerful remedies to combat auditor failures. Second, despite the belief that certain organizational practices manage audit firm specific challenges, we should be wary about unintended and undesirable behavioral repercussions of certain organizational practices. Even though tying promotion to relative performance or basing compensation on revenue generation are believed to align auditors' interests with the interests of the firm, these organizational practices have generated a culture where profit optimization and revenue improvement threaten professional goals. Last, as the confidence in the audit starts with trust in the auditor, a renewed internal commitment to the gatekeeping role of audit firms is an effective remedy to re-establish public trust in the auditing profession. Rather than passively implementing externally imposed regulation, audit firms can nurture the public's trust by actively adopting internal solutions to combat undesirable behaviors in order to signal their intrinsic motivation to honor their gatekeeping role.



CHAPTER 2. ORGANIZATIONAL ANTECEDENTS OF GATEKEEPER FAILURE: A STAKEHOLDER-AGENCY MODEL¹

Abstract

Gatekeepers are private professional service providers who pledge their reputational capital to mediate financial market transactions burdened by severe information asymmetries. Gatekeeper failures have proven to be an endemic and persistent feature of the modern business environment, however, and have been particularly prevalent in the audit context. Although the dominant response to these failures has been to shape up jurisdiction-level regulation, relatively little attention has been paid to the organizational challenges facing the firms providing these services. Building on stakeholder-agency theory, we develop a theoretical model of the agency problems that gatekeeper firms face in regard to their two most salient external stakeholder groups, as well as the corporate governance practices they can use to meet these challenges. We test this model using survey methods and structural equations modeling on a sample of 112 Dutch audit firms. Consistent with our model, we find that organizational factors such as profit orientation and economic dependence of audit firms aggravate agency problems in stakeholder relationships, while governance practices like internal transparency processes and strict client retention policies, mitigate these problems.

¹ This chapter is co-authored by Prof.Dr. J. (Hans) van Oosterhout and Prof.Dr. Pursey P.M.A.R. Heugens. A previous version of this chapter has been published in the American Accounting Association Proceedings (2012). Previous versions have been presented at the European Auditing Research Network conference (2011), the European Group for Organization Studies Conference, the American Accounting Association Annual Meeting (2012).

INTRODUCTION

In market exchange, an efficient allocation of resources is critically dependent on accurate and reliable information being available to all exchange partners. Informational requirements are particularly demanding in financial markets, which are often burdened by severe informational asymmetries between 'insider' suppliers of securities and the 'outsiders' seeking to invest in them (Healy & Palepu, 2001). Insiders may attempt to alleviate such asymmetries by disclosing information in order to relieve information asymmetries, but such disclosures are not inherently credible. In financial markets, efficient exchange will therefore rely on information that is independently verified by parties uninvolved in the actual exchange of securities (Power, 1999; Sikka, 2009).

In advanced market economies, such independent informational services tend to be provided by private professional parties commonly referred to as 'gatekeepers' (Coffee, 2006). Paradigmatic examples of gatekeeping services involve auditors providing assurance over a firm's financial disclosures, credit rating agencies gauging the creditworthiness of a firm, investment bankers brokering and underwriting complex security transactions, and lawyers shaping and safeguarding the legality of these transactions (Coffee, 2002, 2006; Choi, 1997; Fox, 2008; Partnoy, 2006).

In theory, gatekeepers are able to commercially exploit such services because the information they provide is more credible than the information their clients disclose about themselves (Coffee, 2002, 2006; Healy & Palepu, 2001; Leftwich, 1983). Being professional intermediaries, gatekeepers are repeat players who receive only a small portion of their revenues from a single client, and therefore have little incentive to deceive market investors on behalf of any particular client (Coffee, 2002, 2006; Fox, 2008). Moreover, gatekeepers can be seen to pledge their reputational capital, which is a critical asset in marketing gatekeeper services, as a bond to guarantee the independence and quality of their services, and would rationally be unwilling to jeopardize the reputation built-up over

many years for the sake of any single client (Coffee, 2002, 2006; Macey & Sale, 2003; Millon, 2003).

The last two decades have shown a divergence between theory and practice, however, as gatekeeper failure has proven an endemic and persistent feature of the business environment (Fox, 2008). At the turn of the millennium, no auditor, analyst, or credit rating agency timely signaled the poor financial health of Enron (Coffee, 2002; Millon, 2003; Sikka, 2009), while less than a decade later, gatekeepers generally failed to appreciate and communicate the risks associated with financial institutions such as Fannie Mae, Freddie Mac, and Lehman Brothers (Coffee, 2008; Manns, 2009). As a result, resolving gatekeeper failure has been a pressing item on the agenda of regulators and enforcement agencies, which has led to a tightening of the institutional and regulatory constraints on the provision of gatekeeper services (Bayou, Reinstein & Williams, 2011; Defond & Francis, 2005; Hunt, 2009).

A striking fact about these reforms, however, is that relatively little attention is paid to the organizations that provide gatekeeping services. This is a serious omission, because organizational factors at the level of gatekeeper firms themselves, such as their economic dependence on individual clients or their profit-seeking motive, may be involved as deeper causes of gatekeeper failure. Furthermore, because gatekeeping organizations are more closely involved with the verification of corporate information than any external institution possibly could be (McNair, 1991; Johnstone, Warfield, & Sutton, 2001), shoring up their governance practices potentially provides more effective remedies for these failures than those available to external regulators and enforcement agencies.

In this study, we draw on agency theory (Arrow, 1985; Eisenhardt, 1989), and stakeholder theory (Donaldson & Preston, 1995; Frooman, 1999) to develop a stakeholder-agency model of the organizational antecedents of gatekeeper failure (Hill & Jones 1992). We argue that the private professional firms providing gatekeeper services face two characteristic agency problems that establish two organizational “fault-lines” that

encumber this type organization (Heath, 2009). First, gatekeepers are prone to experience agency problems in the relationships they maintain with their clients, as the quality and quantity of the services they provide are not easily assessable for clients (Baiman, 1979; Sharma 1997). We argue, second, that gatekeepers will face agency problems in regard to the third parties who benefit from their services (henceforth: beneficiaries), such as investors in security markets, because these beneficiaries are uninvolved in the transactions through which gatekeeper services are exchanged (Herrbach, 2001; Wallin, 1992).

Because audit firms are paradigmatic gatekeepers facing potential agency problems in their relationships with both their clients and the beneficiaries of audit services, we develop our stakeholder–agency model of gatekeeper failure in the audit context in order to empirically validate the foundational tenets of this model. More concretely, we trace gatekeeper agency problems (GAPs) to organizational factors such as the profit orientation of audit firms (*profit orientation*; Fox, 2008; Simunic, 1980; Wallace & Kay 2008) and an economic overreliance on a select few clients (*economic dependence*; Beattie, Brandt, & Fearnly, 1999; Johnstone et al., 2001; Khurana & Raman, 2006; Sikka, Filling & Liew, 2009), thereby establishing the baseline relationships of our model. We subsequently hypothesize that certain governance practices that audit firms have developed in response to these agency problems will mitigate the extent to which these organizational factors materialize in GAPs, including measures that increase the transparency between professionals inside audit firms (*internal transparency*; Bedard, Deis, Curtis, & Jenkins, 2008; Kaptein, 2010) and strict client retention policies that protect professionals from excessive client pressures (*client retention policies*; Gendron, 2002; Hackenbrack & Nelson, 1996; Lord, 1992).

To empirically test these foundational relationships of our stakeholder–agency model of gatekeeper failure, we use data on a sample of 112 Dutch audit firms (often with multiple respondents per firm), collected through survey methods. To ensure a rigorous

interpretation of the results, structural equation modeling with interaction effects (MSEM) is used to analyze the data (Kline, 2010; Ping, 1995, 2006).

Our findings support the foundational tenets of the stakeholder–agency model of gatekeeper failure we develop. More specifically, we find that profit orientation and economic dependence of gatekeeper PSFs do in fact aggravate GAPS materializing in relationships with clients and beneficiaries, while organizational governance practices such as the degree of transparency between professionals and strict client retention policies within audit firms mitigate the extent to which agency problems materialize in relationships with their external stakeholders.

Our intended contributions to the literature are three-fold. First, we contribute to stakeholder–agency theory by developing and empirically validating a stakeholder–agency model of gatekeeper failure that could serve as an exemplar for further empirical applications of stakeholder–agency theory. This study may thereby help to breathe empirical life into a potentially powerful but empirically underdeveloped theoretical framework in the management literature. Second, we contribute to the nascent literature on the organizational design problems of professional service firms (henceforth: PSFs; Greenwood & Miller, 2010; Von Nordenflycht, 2010), specifically those operating in professional contexts characterized by strong conflicts of interests (Nanda, 2002), such as law and accounting. More specifically, the stakeholder–agency model we develop may contribute to our understanding of the corporate governance challenges faced by this type of “classic PSFs” (Von Nordenflycht, 2010), as well as the corporate governance practices that they may develop to meet these challenges (Greenwood & Empson, 2003; Empson & Chapman, 2006). Third, by finding that specific governance practices that audit firms feature can significantly reduce gatekeeper failure, this study highlights that an exclusive reliance on external regulation may not be sufficient as effective mechanisms can be found at the organizational level.

THEORY AND HYPOTHESES

A Stakeholder–Agency Model of Gatekeeper Failure

In order to theorize how organizational antecedents within gatekeeper firms affect gatekeeper failure, we develop a stakeholder–agency model of the relationships that gatekeepers maintain with their two most critical stakeholder groups (Hill & Jones 1992). Drawing from both stakeholder theory (Donaldson & Preston, 1995; Frooman, 1999) and agency theory (Arrow, 1985; Eisenhardt, 1989), stakeholder–agency theory conceptualizes the firm as a nexus of contracts comprising all *implicit* and *explicit* contractual relations between a firm and its stakeholders, and uses foundational insights from agency theory to analyze failures in these relationships (Hill & Jones 1992).

Stakeholders of gatekeeper firms. Stakeholders are those parties that can affect, or who are affected by, the achievement of the firms' objectives (Freeman, 1984), and are understood to include a firm's shareholders, employees, customers, suppliers, and the communities and natural environment in which the firm is embedded (Donaldson & Preston, 1995). Although gatekeepers may have as many different stakeholders as any other firm, the two stakeholder groups that are most critical from the perspective of both gatekeepers themselves and the societies in which they operate, result from their economic function of mediating transactions in complex exchange. The first critical stakeholder group are the clients paying for gatekeeper services in order to be able to market their goods, services, or securities. Public firms are a paradigmatic example, as they hire auditors to provide assurance over their financial disclosures in order to be able to float their stock on public equity markets (Firth & Liao-Tan, 1998).

Because not all parties who use or rely on gatekeeper services maintain explicit contractual relationships with gatekeepers, we need to distinguish a second stakeholder group that is not only critical from a societal perspective, but also for gatekeeper industries as a whole: the beneficiaries of gatekeeper services. Although this stakeholder group is much more heterogeneous and diffuse than the client stakeholder group, its members have

in common that they are uninvolved in the contracting processes through which gatekeeper services are exchanged. Examples of such beneficiaries are equity investors relying on audits of public firms in making investment decisions, and creditors, customers, and business partners using credit ratings in making business decisions (Coffee, 2002, 2006). Being third parties to the exchange of gatekeeper services, beneficiaries are particularly vulnerable to gatekeeper failures for reasons that agency theory helps to illuminate.

Gatekeeper agency problems. Agency theory provides a conceptual framework for analyzing problems in human cooperation that arise when decision-making is at least partially separated from risk-bearing, and where the interests of the decision maker (the agent) and the risk bearer (the principal) are imperfectly aligned (Eisenhardt, 1989). The principal-agent framework was initially developed to model the welfare implications of market transactions burdened by information asymmetry (Akerlof, 1970; Spence & Zeckhauser, 1971), but has subsequently been used to analyze a broad variety of relationships within both markets and firms (Husted, 2007; Nikalant & Rao, 1994; Ross, 1973). It has been used to conceptualize agency relationships between: managers and shareholders (Shleifer & Vishny, 1997), controlling and minority shareholders (La Porta, Lopez-de-Silanes, Schleifer, & Vishny, 1998), parent and subsidiary companies (Roth & O'Donnell, 1996), franchisors and franchisees (Mathewson & Winter, 1985), patients and doctors (Scott & Vick, 1999), lawyers and their clients (Rubinfeld & Scotchmer, 1993), professionals and their clients more generally (Sharma, 1997), and gatekeepers, their clients, and the beneficiaries of their services more specifically (Antle, 1984; Baiman, 1979; Herrbach, 2001). In this study, we conceptualize gatekeeper failure as gatekeeper agency problems (GAPs) emerging in the relationships that gatekeepers maintain with their clients and the beneficiaries of their services.

Gatekeeper-client agency problems. The relationship that gatekeepers maintain with their clients is vulnerable to GAPs because of the nature of the services provided (Fox, 2008;

Greenwood & Empson, 2003; Painter, 2004; Sharma, 1997). Because strong knowledge and information asymmetries exist between the professionals providing the services and the clients purchasing them, the latter are in a poor position to judge the quality of the services rendered and the quantity of inputs used to produce them (Baiman, 1979; Causholli & Knechel, 2012; McNair, 1991;). As a result, clients are vulnerable to self-interested professional actions and decisions (Sharma, 1997).

Audit services are an exemplary case in point. They are often seen as a “credence good”, because audit clients cannot easily assess the quality of the services delivered or quantity of inputs used in their production (Brivot, 2011; Causholli & Knechel, 2012; McNair, 1991). Because audit firms strive to maximize financial returns (Fox, 2008; Macey & Sale, 2003; Simunic, 1980) while their clients desire a level of quality optimal for attracting external financing (Johnstone et al., 2001), the latter become vulnerable to self-interested auditor behaviors that reduce audit quality and destroy client value. GAPS are therefore prone to surface in gatekeeper-client relationships.

Gatekeeper-beneficiary agency problems. A second agency relationship exists between gatekeepers and the beneficiaries of their services. This is because gatekeepers and their clients contract with each other, while the beneficiaries of gatekeeper services are uninvolved in this transaction, exposing them to the risk of gatekeepers and their clients taking actions that are value-destroying for them (Baiman, 1979; Herrbach, 2001; Wallin, 1992). In the audit context, for example, directors of public firms may condone or even push for substandard auditing in order to conceal earnings management practices or other forms of self-dealing, while in turn gatekeepers may succumb to such pressures to retain future audit contracts from these clients (Macey & Sale, 2003; Miller, 1992; Moore, Tetlock, Tanlu, & Bazerman, 2006). Because beneficiaries only have an *implicit* contractual relationship with the gatekeeper firm (Azariadis & Stiglitz, 1983), they are unable to either optimally design or monitor performance of the gatekeeping contract (Goldman & Barlev, 1974; Herrbach, 2001; Sikka, Puxty, Willmott, & Cooper, 1998). As a result, GAPS,

manifested as a broad variety of service quality-reducing behaviors, are prone to materialize in gatekeeper-beneficiary relationships (Malone & Roberts, 1996).

The Empirical Context: Audit firms as Paradigmatic Gatekeepers

In order to further develop our stakeholder–agency model of gatekeeper failure, we resort to the audit context to develop and test hypotheses reflecting the agency relationships gatekeepers maintain with their clients and beneficiaries. Audit firms are paradigmatic gatekeepers because they closely resemble the theoretical gatekeeper model for three reasons (Coffee, 2001). First, by providing assurance to investors that the financial disclosures of its clients present a true and fair view of their state of affairs (Sikka, 2009), auditors effectively provide access to equity markets for public firms (Palmrose, 2005). Second, auditors are repeat players in the market for audit services, who pledge their reputational capital with each audit contract (Coffee, 2001). Third, the fees auditors earn from any single client tend to be small compared to their total revenues, as the high concentration of the audit market structurally ensures that the bulk of audit firms have numerous clients to which they provide audit services (Barnier, 2010).

In an important sense, audit firms are also paradigmatic for the type of organization providing gatekeeper services. Being exemplars of “classic professional service firms” (Von Nordenflycht, 2010), audit firms are internally owned by a subset of their employees and have traditionally been organized as professional partnerships or P² firms (Cooper et al., 1996; Greenwood, Hinings, & Brown, 1990) in order to be able to attract and retain the human capital on which they are critically dependent (Malos & Campion, 2000), secure the autonomy of the professionals providing gatekeeper services (Greenwood et al., 1990), signal their independence and professional ethos (Greenwood, Li, Prakash, & Deephouse, 2005), or simply comply with professional or legal obligations (Von Nordenflycht, 2010). Empirically, the P² has been the dominant form of enterprise organization in gatekeeper services, with law and accounting firms continuing to feature

the partnership model of ownership and governance today, while most if not all investment banks have historically been of the P² form (Hayward & Boeker, 1998). Credit rating agencies are a notable exception, as they are owned by large publicly listed media conglomerates, presumably because the kind of data they use for their services require sizeable financial investments (Hansmann, 1996).

Finally, audit firms have also been paradigmatically involved in gatekeeper failures, as the past decade has witnessed a host of failures in the audit industry that have had profound systemic ramifications (Carnegie & Napier, 2010). The demise of Arthur Andersen, for example, “is not just the story of a single accounting firm, [...] it is a story about an entire system” as many other audit firms were similarly involved in fraud (Squires, Smith, McDougal & Yeack, 2003, p.171). Moreover, the apparent failure of the audit industry to identify any of the antecedents leading up to the recent financial crises demonstrates that audit failure is persistent (Coffee, 2006; Hopwood, 2009; Sikka, 2009), in spite of a host of measures taken to remedy it. Measures like the Sarbanes Oxley Act of 2002 and the revised Eighth Company Law Directive (Defond & Francis, 2005; Tackett, Wolf, & Claypool, 2004) have sought to promote more independent and truthful reporting by shaping up the duties and responsibilities of statutory auditors (Bayou et al., 2011). In addition, the clarity and quality of international auditing standards have been enhanced under the supervision of a group of financial market authorities (Humphrey, Loft & Woods, 2009), while ongoing public policy debates advocate even more invasive reforms of the profession (Barnier, 2010; Humphrey, 2011).

Although these measures have led to a stiffening of the regulatory and institutional context in which audits take place, it is questionable whether they prompt the required behavioral changes (Levay & Waks, 2009; Painter, 2004; Wyatt, 2004) and re-establish stability and trust in the financial system (Bayou et al., 2011; Carnegie & Napier, 2010; Humphrey, 2011; Sikka, 2009). Furthermore, most of the measures taken to date have paid relatively little attention to the type of organization providing audit services. This is a

serious omission, not only because organizational factors within audit firms may be involved as the deeper causes of gatekeeper failures, but also because organizational factors, because of their proximity to the audit process, may provide more effective remedies for these failures than any external policy measure could possibly furnish. It is to these factors in audit firms that we turn now.

Hypotheses Development

In order to test the foundational tenets of our stakeholder–agency model of gatekeeper failure, we develop two empirical models reflecting the two organizational fault lines within gatekeeper firms that result from the agency relations they maintain with their clients and beneficiaries respectively. More specifically, we will argue that organizational factors such as the profit orientation and the economic dependence of audit firms will positively affect the materialization of GAPS along these fault lines, while specific governance practices that audit firms feature, such as transparency and client retention policies, will mitigate the effects of these organizational factors.

Professional – client (model1): baseline relationship. Over the past three decades, audit firms have developed from predominantly professional to more commercial organizational configurations (Brock, 2006; Gendron, Suddaby, & Lam, 2006). Traditionally, audit firms were organized as P² organizations (Cooper et al. 1996; Greenwood et al., 1990), featuring a strong professional culture, decentralized decision-making, and mostly informal collegial monitoring practices. This P² configuration was believed to be optimally geared to securing professional autonomy and to tempering commercial pressures on professionals routinely facing conflicts of interests (Greenwood & Empson, 2003; Moore et al., 2006).

Yet with the increasing competition due to the saturation of the audit market and the start of cross-selling profitable non-audit services (Suddaby, Cooper, & Greenwood, 2007), audit firms have increasingly moved away from the P² configuration to the so-called

managed professional business (MPB) configuration (Cooper et al., 1996), which combines a greater commercial orientation with more centralized decision-making, a stronger emphasis on strategic and financial planning, and the adoption of more formal organizational controls (Morris & Pinnington, 1998). This move has intensified the underlying value conflict between professionalism and commercialism in audit firms (Gendron et al., 2006; Hanlon, 1997; Suddaby, Gendron, & Lam, 2009; Willmott & Sikka, 1997), with the professional logic increasingly giving way to the commercial logic (Macey & Sale, 2003; Wyatt, 2004; Zeff, 2003).

These developments are likely to aggravate the agency conflict between audit firms and their clients. Especially the profit orientation of audit firms, which we define as an organization's consideration to profit motives, increases the pressure for auditors to prioritize the pursuit of profit over professional objectives (O'Keefe, Simunic, & Stein, 1994; Wallace & Kay, 2008; Zeff, 2003). Prior research has identified profit maximization as a driving force in the audit industry (Simunic, 1980), and has documented that the wave of mergers and acquisitions that took place in this industry have led to higher profit margins (Owen, 2003). Although as residual claimants the partners are most sensitive to the profit motive, this is also true for non-partner auditors when the profit orientation of the firm is translated into the compensation plans and career perspectives of the auditors (Agoglia, Hatfield, & Lambert, 2010; Knechel, Niemi, & Zerni, 2013). The dominant up-or-out promotion system, for example, and the risky deferred compensation incentive structure that it involves (Malos & Campion, 2000), creates hyper incentives for non-partner auditors to engage in strategic behaviors, which may ultimately harm client interests (Causholli & Knechel, 2012).

One particularly salient type of GAP that results from an overly strong profit orientation of audit firms involves the overcharging of clients (Causholli, Knechel, Lin, & Sappington, 2012). As audits are executed on a fixed fee basis (Ettredge, Bedard, & Johnstone, 2003), firms cannot easily recover cost overruns but they can overcharge their

clients nevertheless (Causholli & Knechel, 2012; De Villiers, Hay, & Zhang, 2012). Overcharging refers to behaviors like billing more than what would be appropriate for the level of service supplied, shifting hours between clients, or more subtly charging senior fees when a junior carried out the work without refunding the client (Ribstein, 2003). These behaviors not only dupe the client financially, but also compromise the informational value of the audit, as overcharging often materializes through economizing on service quality, decreasing effort, cutting audit costs, or reducing auditor expertise (Causholli & Knechel, 2012). Less tangible but equally important is that an excessive profit orientation undermines the sense of professionalism and its associated attitudes of care and skepticism that a valid and reliable audit requires (Wallace & Kay, 2008; Wyatt, 2004). We therefore hypothesize:

Hypothesis 1: the degree of profit orientation will be positively related to the prevalence of overcharging.

Professional – client (model 1): moderation effects. In order to secure their future business and existence, audit firms are pressured to adopt corporate governance practices that mitigate the extent to which organizational factors engender GAPs. When detected by parties outside the firm, such behaviors could destroy a firm's reputation, which serves as an important signal for the quality and reliability of its services (Podolny, 1993; 1994; Power, 2009) and allows firms to charge premium fees and attract and maintain better human capital than less reputable competitors (Hay, Knechel, & Lin, 2008; Greenwood et al., 2005; Simon & Francis, 1988). Given the long-standing prominence of collegial monitoring practices in the professions (Lazega, 2001) and its centrality in traditional professional configurations such as the P² (Greenwood et al., 1990), a governance practice that may be particularly effective in restraining GAPs is an internal transparency policy (Kaptein, 2008).

Within audit firms, an internal transparency policy serves to make those behaviors visible to fellow professionals that, due to their complexity and decentralized location at the professional-client interface, are difficult to monitor hierarchically, let alone by external professional associations or enforcement parties. An internal transparency policy may be an effective mechanism to enhance the detection and deterrence of overcharging in audit firms, because it enables peer-monitoring practices that have long been established in the professions and that professionals tend to accept as legitimate (McCabe, Trevino & Butterfield, 1996; Kaptein, 2010).

Peer monitoring involves individuals observing and reacting to peers' behaviors (Loughry & Tosi, 2008). Research has established that peer monitoring can simultaneously reduce hidden actions—such as employee theft, unprofessional behavior, escalation of commitment, and other forms of self-interested decision-making (Kirby & Davis, 1998; Loughry & Tosi, 2008; Schaefer & Welker, 1994; Tosi, Gomez-Meija, Loughry, Werner, Banning, Katz, & Silva, 1999)—and induce more effort (Kandel & Lazear, 1992; Widener, Shackell, & Demers, 2008). This is not only because peer monitoring facilitates the detection of undesirable behaviors by individuals less willing to engage in such behaviors, but also because it generates conformity to the firm's standards (Loughry & Tosi, 2008). The audit setting is already familiar with *ex-post* peer monitoring practices, be it by another audit firm (in the case of the joint audit: Francis, Richard, & Vanstraelen, 2009) or by the firm itself (in the form of engagement quality control reviews: Bedard et al., 2008; Brazel, Agoglia, & Hatfield, 2004). Although such *ex-post* peer monitoring practices have been found to affect auditor judgment and audit quality (Bedard et al., 2008), overcharging is hardly observable after the audit has been completed, let alone by a joint audit firm. Therefore, enhancing ongoing peer monitoring during the audit process through an internal transparency policy will boost the internal control environment within audit firms (Chapman & Kihn, 2009) and curb the prevalence of a broad array of overcharging practices (Kaptein, 2008). Therefore, we hypothesize:

Hypothesis 2: The extent to which a profit orientation affects the prevalence of overcharging will be reduced by an internal transparency policy.

Professional –beneficiaries (model 2): baseline relationship. As explained, audit firms also face agency problems in their relationship with investors, who are the most important beneficiaries of their services. Given that the relationship with investors is vulnerable to collusion between audit firms and their clients at the expense of investor interests, the organizational factor in audit firms that is most likely to result in GAPS in this relationship is the economic dependence of audit firms on the clients paying for their services (Beattie et al., 1999). Audit firms become more economically dependent in this way the more their income streams come from a single or just a few large clients (Khurana & Raman, 2006). Although economic dependence may result from a number of conditions, it is at least partially innate to the audit context because audit firms face strong incentives to hold on to existing clients because of client-specific investments in set-up costs that they cannot recuperate outside particular client relationships (DeAngelo, 1981; Farag & Elias, 2011; Levinthal & Fichman, 1988).

Economic dependence jeopardizes the quality and value of audit services because it creates incentives that compromise auditor independence (Dart, 2011; Firth, 1980; Frankel, Johnson & Nelson, 2002). More specifically, economic dependence compromises the auditor's ability to resist client pressures to accommodate aggressive or even fraudulent reporting (Beck, Frecka & Solomon, 1988; Johnstone et al., 2001; Khurana & Raman, 2006; Magee & Tseng, 1990). It may result in a host of audit quality reducing behaviors (Braun, 2000; Donnelly, Quirin, & O'Bryan, 2003; Kelley & Margheim, 1990; Malone & Roberts, 1996; Otley & Pierce, 1996), such as lowering the amount of work to a level below what is considered necessary for a reliable audit, or failing to pursue questionable items in the disclosures of their clients (Herrbach, 2001; Malone & Roberts, 1996; Otley & Pierce, 1996). More generally, economic dependence will diminish the care

and skepticism that is necessary for reliable audits, reduce “the level of evidence gathered for the audit”, and ultimately jeopardize the validity and reliability of the audit as a whole (Herrbach, 2001, p.790). This renders audits unreliable, undermines the public’s trust in audit services (Carcello, Hermanson, & Huss, 1996), and eventually harms the interests of their most important beneficiaries: investors. Hence, we hypothesize:

Hypothesis 3: The degree of economic dependence will be positively related to the prevalence of audit quality reducing behaviors.

Professional - beneficiaries (model 2): moderation effects. In order to secure the intangible asset of their reputation, audit firms are prone to implement corporate governance practices that mitigate the extent to which economic dependence engenders audit quality reducing behaviors. A growing body of research has started to identify several factors influencing audit quality reducing behaviors, such as the firm’s internal control environment (Margheim & Pany, 1986; Malone & Roberts, 1996; Otley & Pierce, 1996) and contextual factors, such as leadership style or time budget pressures (Coram & Woodliff, 2003; Willett & Page, 1996; Kelley & Margheim, 1990; Kelley, Margheim, & Pattison, 2011).

Surprisingly, the implementation of quality controls has not been found to significantly affect auditor behavior (Malone & Roberts, 1996; Margheim & Pany, 1986). This result may be due, however, to the broad and overly inclusive way in which the effectiveness of the internal control system was operationalized in these studies. One way to resolve this issue is by measuring and analyzing the effects of specific governance practices separately by breaking down the quality control system into specific control practices targeted at specific behaviors (Bedard et al., 2008).

A practice that is particularly suited to reduce audit firm vulnerability to client pressures involves a strict client retention policy. Adopting and implementing a strict client retention policy can incentivize auditors to flag critical engagements with clients, and

support lead partners to terminate relationships in case clients exert too much pressure to acquiesce to aggressive reporting. Prior research has not only argued that client retention policies are more critical than client acceptance decisions (Gendron, 2002), but has also demonstrated empirically that client retention incentives influence audit judgments (Chang & Hwang, 2003; Farmer, Rittenberg, & Trompeter, 1987; Goldman & Barlev, 1974; Hackenbrack & Nelson, 1996; Lord, 1992). Strict client retention policies therefore reduce the vulnerability of audit firms to audit quality-reducing behaviors that arise from high degrees of economic dependence. We therefore hypothesize:

Hypothesis 4: The extent to which economic dependence engenders audit quality reducing behaviors will be reduced by the presence of a strict client retention policy.

METHODS

Data Collection and Sampling Design

To test our hypotheses, we conducted a web-based survey of all Certified Public Accountants (CPAs) registered at the Dutch professional association NBA (<http://www.nba.nl>), as the data for our variables of interest are not publicly available through archival sources. The survey administration took place over the course of 10 weeks starting in mid-May 2011. It consisted of the initial survey invitation and two follow-up reminders. The invitation e-mail included both an endorsement by the NBA and an incentive appealing to respondents' social motivations, as we pledged to donate 1 euro per respondent to the Red Cross to support the victims of the tsunami in Japan. Ultimately, 281 Dutch CPAs employed by a public audit firm, with an average tenure of 14.5 years, returned a completely filled-out survey. This represents an estimated individual-level response rate of 9.8 percent. As we are interested in firm-level variables, we aggregated the individual responses to the firm level by averaging them. As 112 of the 474 Dutch audit firms responded to our survey, our firm-level response rate equals 23.6 percent. The Dutch audit

landscape can be categorized into three segments, mainly depending on whether an audit firm holds a license to perform audits of public interest entities (PIE) (provided by the AFM, the Dutch Financial Market Authority). Our sample captures the extant variety of the Dutch audit landscape, as all Big 4 firms are included in our sample, as well as 9 out of 11 AFM-license holding firms, and 21.6 percent of all smaller firms that are restricted to conducting non-PIE audits. The sample description based on audit firm segments can be consulted in Table 1.

Table 1 Sample description

Organization type	Sampling frame ^a	In sample	Percentage
Big Four	4	4	100%
License holding	11	9	81.8%
Registered at AFM	459	99	21.6%

^aSource: AFM (2011)

Measures

The scales used to measure our variables of interest consisted of 52 items capturing 9 constructs rated on seven-point Likert scales. Whenever possible, we relied on psychometric scales validated in prior research (6 scales). The nature of our research questions required that 4 scales be purposely developed, as no scales measuring the variables of interest were available in the literature (for all scales and corresponding items, see Appendix 1). In these cases, we relied on canonical scale development processes to establish measurement reliability and construct validity (Hinkin, 1998; Steenkamp & van Trijp, 1991). First, we generated a large pool of items for each construct through both inductive and deductive item generation. Second, we consulted two expert panels to assess the content validity of each measure and to shorten the survey. One expert panel consisted

of 11 academics (containing scholars from the fields of accounting and organizational research), who mainly evaluated the correspondence between theoretical constructs and items, and who reduced the number of items to be measured for each scale. The other expert panel consisted of 9 professional auditors (5 partners and 4 seniors, mainly from Big 4 companies), who evaluated the survey both on its consistency with practice as well as on the use of professional jargon.

As a third step, we used structural equations modeling (SEM) to estimate our two models, as SEM allows us to take the measurement error of the latent independent and dependent variables into account (Kline, 2010). When aiming to understand relationships between latent variables in large and complex models containing many items, Little and his associates (2002) advocate a partial disaggregation strategy (referred to as parceling) for linking indicators to constructs, because parceling reduces the number of parameters to be estimated (Kishton & Widaman, 1994; Williams & O'Boyle, 2008). Parceling is also preferred over the use of individual indicators, as these often have a lower reliability and smaller common-to-unique variances (Coffman & McCallum, 2005; Little, Cunningham, Shahar & Widaman, 2002). We created three parcels of items using the so-called domain representativeness approach, in which the item with the highest factor loading on the latent construct is assigned to parcel 1, the item with the second-highest loading to parcel 2, and the item with the third-highest loading to parcel 3. Items 4 – 6 are then assigned in reversed order, and so on (Kishton & Widaman, 1994).

Dependent variable model 1: audit quality reducing behaviors. Audit quality reducing behaviors were measured using the four-item scale developed by Otley and Pierce (1996) measuring the “poor execution of an audit procedure that reduces the level of evidence gathered for the audit, so that the collected evidence is unreliable, false or inadequate quantitatively or qualitatively” (Herrbach, 2001, p.790). This scale was also used successfully by Malone & Roberts (1996) and Herrbach (2001). The Cronbach's alpha for this scale is satisfactory ($\alpha = .87$). A confirmatory factor analysis (CFA) confirmed the

internal consistency of this scale as all factor loadings were significant ($p < .05$). The unidimensionality of this scale was established through exploratory factor analysis (EFA), with the first factor capturing 73.0 percent of the total variance.

Dependent variable model 2: Overcharging clients. This purposely-developed nine-item scale aims to capture the extent to which auditors overbill their clients in relation to the quality or quantity of the services rendered. Respondents had to answer on a scale of 1 (never) to 7 (very often) how often certain types of behaviors occurred within their firm. This scale included items such as “suggesting unnecessary additional services to clients”, “reducing the number of hours without reimbursing the client”, “shifting hours from audit to audit-related services” and “charging senior fees when a junior carried out the work”. The Cronbach’s alpha for this scale was again satisfactory ($\alpha = .90$). CFA confirmed the internal consistency of this scale as all factor loadings were statistically significant ($p < .05$). This scale proved to be unidimensional with the first factor explaining 81.2 percent of the total variance.

Independent variable model 1: Profit orientation. This seven-item scale is based on the three-item profit orientation scale developed by Wallace and Kay (2008, p.1034), who “asked respondents to indicate the degree to which they felt that the practice of their profession was primarily concerned about the generation of profit”. We decided not to use this scale directly, as its reliability score ($\alpha = .65$) was below the conventional cut-off point for scale reliability, which Nunnally (1978) puts at .70. We generated five additional items to arrive at a more inclusive measure of the profit orientation construct. We followed the advice of our academic expert panel, which suggested that we drop one of the original Wallace and Kay (2008, p.1034) items (“in order to succeed in [accounting] one has to be aggressive and business oriented”). The academic experts found this item more applicable in its original context (law firms) than in accounting. The remaining seven items included examples like: “the bottom-line orientation of my firm is the generation of profits”, “we closely monitor our financial performance”, and “my firm is mainly concerned about the

generation of profits". Cronbach's alpha for the new scale was .77, indicating a sufficient degree of reliability (cf. Nunnally, 1978). CFA showed that all factor loadings were statistically significant ($p < .05$). EFA demonstrated unidimensionality, as the first factor captured 67.1 percent of the total variance.

Independent variable model 2: Economic dependence. This purposely-developed four-item scale aims to measure the degree to which a public accountant perceives his office as being economically dependent on a particular client. Items included "the bankruptcy of one of our clients could jeopardize the survival of my firm" and "losing one of our clients can impact the revenues of my firm / business unit considerably". The items produced a Cronbach's alpha of .77, indicating a sufficient degree of reliability. The CFA indicated satisfactory internal consistency, as all factor loadings were statistically significant ($p < .05$). EFA confirmed the unidimensionality of the scale, with the first factor accounting for 66.7 percent of the total variance.

Moderating variable model 1: Transparency. A six-item scale developed by Kaptein (2008) was used to measure internal transparency, which captures "the degree to which employee conduct and its consequences are perceptible to those that can act upon it, that is colleagues, supervisors, subordinates, and the employee(s) concerned" (Kaptein, 2008, p.926). The scale shows satisfactory reliability, through a Cronbach's alpha of .80. CFA further showed that all factor loadings were statistically significant ($p < .05$). EFA established the unidimensionality of this scale, with the first factor explaining 52.6 percent of total variance.

Moderating variable model 2: Client retention. This purposely-developed five-item scale aims to capture the extent to which audit firms support their members in their decision to terminate relationships with clients exerting undue pressure to accommodate aggressive reporting. The scale included items like: "my firm would back my decision to walk away if a client exerts too much pressure", "walking away from a threatening client will positively affect my career" and "I am supported when I discontinue the relationship with a client

exerting too much pressure". The scale proved to be sufficiently reliable, with a Cronbach's alpha of .84. CFA showed all factor loadings to be statistically significant ($p < .05$). EFA confirmed the unidimensionality of the scale, as the first factor explained 62.3 percent of total variance.

Control variable: Professional commitment. This seven-item scale developed by Suddaby et al. (2007) measures the "relative strength of identification with and involvement in one's profession" (Morrow & Wirth, 1989, p.41). We included this measure as a control variable because the professional commitment of individual auditors is expected lower the degree to which GAPs might materialize in audit firms' external agency relationships. The scale showed sufficient reliability, with a Cronbach's alpha of .87. CFA likewise showed that all factor loadings were significant ($p < .05$). Unidimensionality was established through EFA, with the first factor accounting for 56.8 percent of the total variance.

Control variable: Specialization. This purposely-developed five item scale aims to capture the extent to which members of an audit firm can serve a select set of clients based on their expertise. We included this measure as a control variable because it is expected to increase the degree to which GAPs materialize in audit firms' external agency relationships because it reduces a professional's redeployability in an audit firm. The scale included items like "because my work is specialized, I can only serve a limited amount of clients", "I lack proper training for certain services my firm offers" and "my expertise enables me to serve every client in any sector" (reverse coded). The scale proved to be sufficiently reliable, with a Cronbach's alpha of .70. CFA further showed all factor loadings to be significant ($p < .05$). EFA confirmed the unidimensionality of the parceled scale, as the first factor explained 71.8 percent of the total variance.

Control variable: Centralization. This five-item scale developed by Aiken and Hage (1968) measures the hierarchy of authority in an organization (p.501) and was adapted to the audit context. This scale has been successfully used by Jaworski and Kohli (1993). We included this measure as a control variable because centralization forms an integral part

in the modern MPB (Cooper et al., 1996). Centralization makes monitoring professional behavior at the client interface more complex (Teece, 2003) and can therefore positively influence GAPs. The scale showed sufficient reliability with a Cronbach's alpha of .85. CFA likewise showed that all factor loadings were significant ($p < .05$). Unidimensionality was established through EFA, with the first factor accounting for 63.3 percent of the total variance.

Control variable: Reputation. This construct was dichotomously operationalized, assigning a value of 1 to an audit firm if it belongs to the big four, and 0 if otherwise.

Control variable: Size and strategic capabilities. Size and strategic capabilities were also dichotomously operationalized, taking on the value of 1 if the audit firm obtained a license from the AFM to carry out audits at PIEs and 0 if not.

Validity and Reliability

Sample validity. Out of the 281 complete surveys, we identified 40 early and 40 late respondents according to the date and time their surveys were completed (Grafton, Lillis & Widener, 2010). We evaluated non-response bias by comparing the two groups according to both demographic variables and constructs of interests. A lack of significant differences between the two groups supports the view that our data is not hampered by non-response bias.

Convergent/discriminant validity. Our constructs display convergent validity, as all indicators are positively and significantly related to their associated latent variables (Carmine & Zeller, 1979; Kline, 2010). In order to establish discriminant validity, we compared the fit of the unconstrained measurement model to that of a series of measurement models in which a pair of constructs was constrained to correlate fully by setting the covariance between the latent constructs to 1 (Kline, 2010). If the unconstrained model demonstrates better fit than the constrained model, this test supports the view that the corresponding pair of constructs possesses discriminant

validity (Carmines & Zeller, 1979; Kline, 2010). All possible pair-wise constrained models were estimated, and all demonstrated poorer fit through significantly higher chi-square values.

Common method variance. As all the data for this study are extracted using a single measurement instrument, there is a potential risk of common method variance. We followed the procedures suggested by Podsakoff and associates (2003), in which common method variance is captured through a single unmeasured latent method factor in the analysis. This entails comparing the fit of a full measurement model in which all indicators are loaded onto their latent variables, to a measurement model in which all indicators are loaded onto a single method factor. The full measurement model of Model 1 yielded an adequate fit (χ^2 1656.41; $p < .001$; RMSEA .09; CFI .82), as did Model 2 (χ^2 1066.24; $p < .001$; RMSEA .09; CFI .85). The single method factor model fit was worse for both model 1 (χ^2 3457.56; $p < .001$; RMSEA .16; CFI .58; $\Delta\chi^2$ 1801.15; Δ d.f. 21; $p < .001$) and model 2 (χ^2 2466.97; $p < .001$; RMSEA .17; CFI .59; $\Delta\chi^2$ 1400.73; Δ d.f. 21; $p < .001$). Subsequently, we estimated a trait-and-method model by adding a single method factor latent variable to the full measurement model. The presence of common method variance can be established if this trait-and-method model exhibits better fit than the full measurement model lacking a method factor latent variable. For both model 1 and model 2, the trait-and-method model fitted our data better (model 1: χ^2 1282.46; $p < .001$; RMSEA .07; CFI .88; $\Delta\chi^2$ 373.75; Δ d.f. 125; $p < .001$; model 2: χ^2 940.01; $p < .001$; RMSEA .08; CFI .89; $\Delta\chi^2$ 126.23; Δ d.f. 43; $p < .001$). Using the sum of squared loadings, we established that the amount of variance explained by the common method factor accounted for 4.5 percent in model 1, and for 1.75 percent in model 2. Both values are well below the critical 25 percent cut-off point (Williams, Cote, & Buckely, 1989).

RESULTS

Overall Model Results

We use the LISREL 8.80 software program with maximum likelihood estimation routines to estimate our two models. Table 2 contains descriptive statistics, reliability scores, and correlations. To account for moderation in structural equations modeling (MSEM), we used Ping's (1995; 2006) two-step approach for testing interaction effects amongst latent variables. This approach involves using a single indicator for the latent product and setting the loading² and error³ for the indicator of the latent product to a fixed value obtained from the additive version of the measurement model (Cortina, Chen & Dunlap, 2001; Ping, 1996, 2006). Fixing certain parameter values in a structural model based on values of the measurement model is justified as long as the latent variables are unidimensional (Anderson & Gerbing, 1988; Cortina et al., 2001).

In general, we confirm that aggravating organizational factors do indeed increase the risk that GAPS materialize in auditor-client and auditor-beneficiary relationships, while governance mechanisms reduce the risk that such agency problems occur. This is evidenced by the good fit of our two models to the data (model 1: χ^2 506.36; d.f. 257; RMSEA .08; CFI .86; GFI .76; model 2: χ^2 516.06; d.f. 308; RMSEA .08; CFI .89; GFI .75). Even though the chi-square test is significant, the models fit the data well. Not only do the goodness-of-fit indices show satisfactory values, but the path coefficients are also significant and in the directions hypothesized (see Table 3).

Hypotheses Testing

Hypothesis 1 stated that profit orientation leads to overcharging of clients in the auditor-client relationship. Our results support this hypothesis, as profit orientation has a positive

² $\lambda_{x:z} = (\lambda_{x1} + \lambda_{x2})(\lambda_{z1} + \lambda_{z2})$ Where x_1 and x_2 are indicators of latent variable X and where z_1 and z_2 are indicators for the moderating latent variable Z.

³ $\theta_{\epsilon x:z} = (\lambda_{x1} + \lambda_{x2})^2 \text{VAR}(X)(\theta_{\epsilon z1} + \theta_{\epsilon z2}) + (\lambda_{z1} + \lambda_{z2})^2 \text{VAR}(Z)(\theta_{\epsilon z1} + \theta_{\epsilon z2}) + (\theta_{\epsilon z1} + \theta_{\epsilon z2})(\theta_{\epsilon z1} + \theta_{\epsilon z2})$

and significant direct effect on overcharging clients ($\beta = .30, t = 2.70$). Hypothesis 2 predicted a moderating effect of an internal transparency policy on this base-line relationship, as transparency enhances the visibility of undesirable behaviors within the audit firm. Our results confirm Hypothesis 2. The interaction term (profit orientation * internal transparency) has a negative and significant effect on overcharging clients ($\beta = -.22, t = -2.17$). To interpret these interactions further, interaction plots were created using the standardized path coefficients based on the Aiken and West's (1991) procedure (see Figure 3; Cortina, Chen, & Dunlap, 2001). These plots suggest that in an organizational context characterized by high profit orientation, a strong internal transparency policy results in lower degrees of overcharging. Except for centralization, which has a significant positive effect on overcharging, ($\beta = .20, t = 2.04$), the control variables are insignificant.

Hypothesis 3 stated that economic dependence fuels audit quality-reducing behaviors because it enhances the perceived dependence on the client. The results support Hypothesis 3 as economic dependence has a positive and significant effect on audit quality reducing behaviors ($\beta = .32, t = 2.66$). Hypothesis 4 predicted a moderating effect of a strict client retention policy on the base-line relationship. This hypothesis was supported, as our results show evidence of a negative and significant effect of the interaction term (economic dependence * client retention) on audit quality reducing behaviors ($\beta = -.30, t = -2.95$). To interpret these interactions further, an interaction plot was created using the standardized path coefficients based on the Aiken and West's (1991) procedure (see Figure 4; Cortina et al., 2001). These plots suggest that in an organizational context characterized by high economic dependence, audit quality reducing behaviors can be reduced by the presence of a strong client retention policy. A weak client retention policy increases audit quality reducing behaviors in a high economic dependence context. The control variables are not significant.

Table 2 Descriptive statistics, reliability coefficients, and correlations

n=112	mean	SD	1	2	3	4	5	6	7	8	9
1 Economic dependence	2.17	1.04	(0.79)								
2 Profit orientation	4.12	0.93	0.21*	(0.77)							
3 Client retention	6.66	1.19	-0.31**	-0.19*	(0.91)						
4 Internal transparency	5.18	0.66	-0.27**	0.16	0.43**	(0.76)					
5 Audit quality reducing behaviors	2.47	0.82	0.46**	0.32**	0.44**	-0.27**	(0.88)				
6 Overcharging clients	1.85	0.67	0.40**	0.33**	0.36**	-0.30**	0.62**	(0.89)			
7 Professional commitment	5.43	0.84	-0.26**	-0.06	0.34**	0.31**	-0.24**	-0.27**	(0.88)		
8 Specialization	4.13	1.07	-0.14	-0.09	-0.09	0.10	0.05	0.02	0.12	(0.81)	
9 Centralization	3.65	1.08	-0.07	0.04	0.10	0.19*	-0.02	0.08	0.14	-0.10	(0.88)

*.Correlation is significant at the 0.01 level (2-tailed). **.Correlation is significant at the 0.05 level (2-tailed).

Table 3 Moderated structural equation modeling results

	Overcharging clients		Audit quality reducing behaviors	
	Unstdzied	stdzied	unstdzied	stdzied
<i>Independent variables</i>				
Profit orientation	0.26*	0.30*	0.20*	0.32*
Internal transparency	-0.18*	-0.24*	-0.16*	-0.53*
Client retention	-0.06	-0.10	-0.03	-0.04
<i>Moderation</i>				
Internal transparency*	-0.01*	-0.22*	-0.002*	-0.30*
Profit orientation				
<i>Control variables</i>				
Reputation	0.04	0.01	-0.33	-0.10
Professional commitment	-0.11	-0.15	-0.01	-0.01
Size & Strategic capabilities	-0.03	-0.01	0.06	0.03
Centralization	0.10*	0.20*	0.05	0.09
Specialization	0.03	0.08	0.08*	0.19*
χ^2 506.36 Df 257 RMSEA 0.08 CFI 0.86 GFI 0.76	χ^2 516.06 Df 308 RMSEA 0.08 CFI 0.89 GFI 0.75			

* Path coefficient significant at the 0.05 level.

Figure 1 Professional-Client Agency Problem

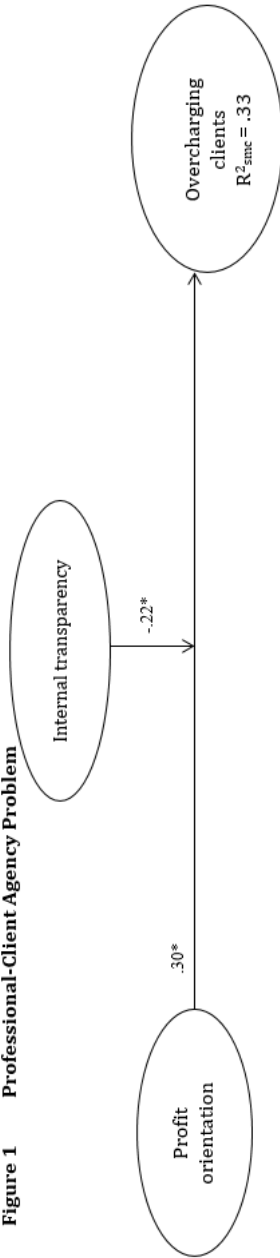
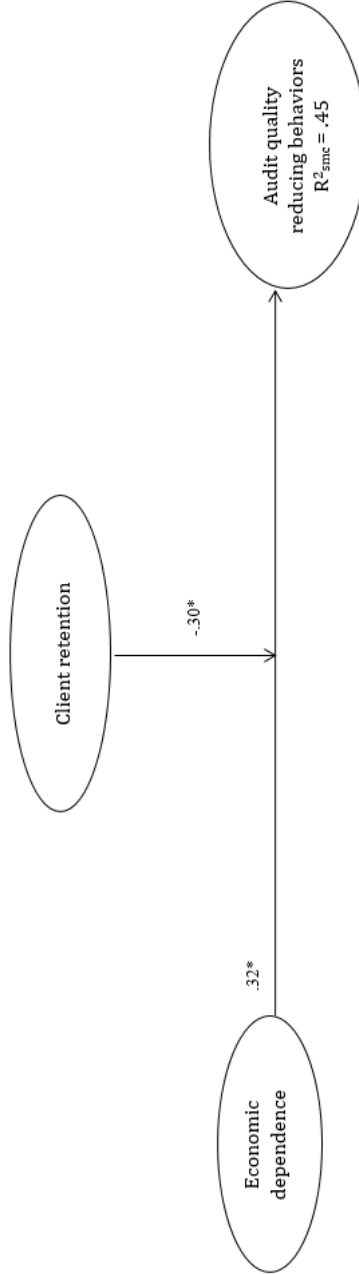


Figure 2 Professional-Beneficiaries Agency Problem



Control variables and the corresponding paths are not displayed. Control variable path coefficients are displayed in Table 3.

Robustness Checks

Next to the robustness tests reported in the methods section, we performed several additional analyses in order to ensure the robustness of our results (untabulated). As is recommended when conducting SEM analyses, many alternate models were estimated, and their fit assessed (Kline, 2010). As these alternate model specifications never fitted the data significantly better than our stakeholder-agency models, and usually fared far worse, we conclude that the foundational tenets of the stakeholder-agency models we develop of gatekeeper failure are empirically grounded.

Figure 3 Interaction Plot for Professional-Client Agency problem

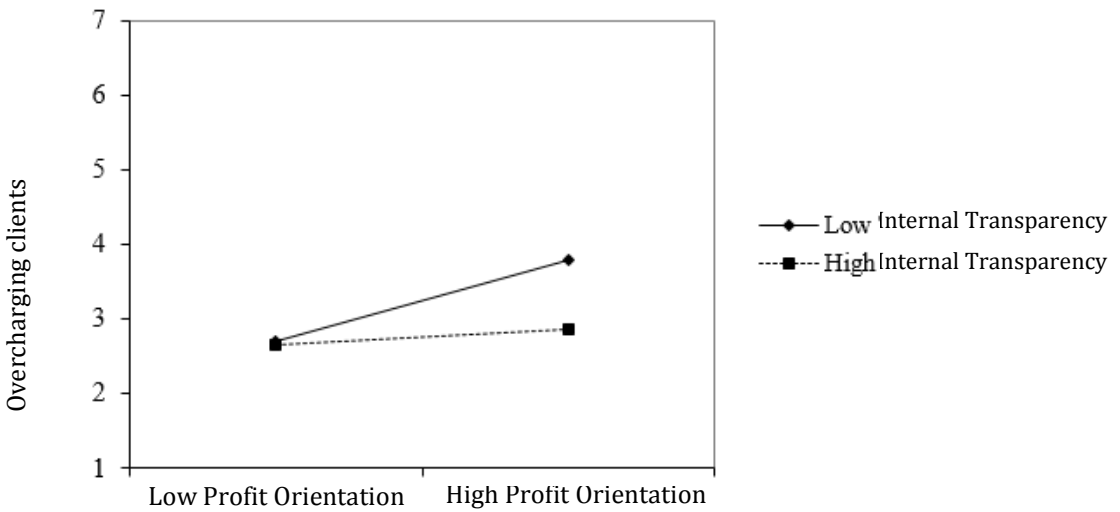
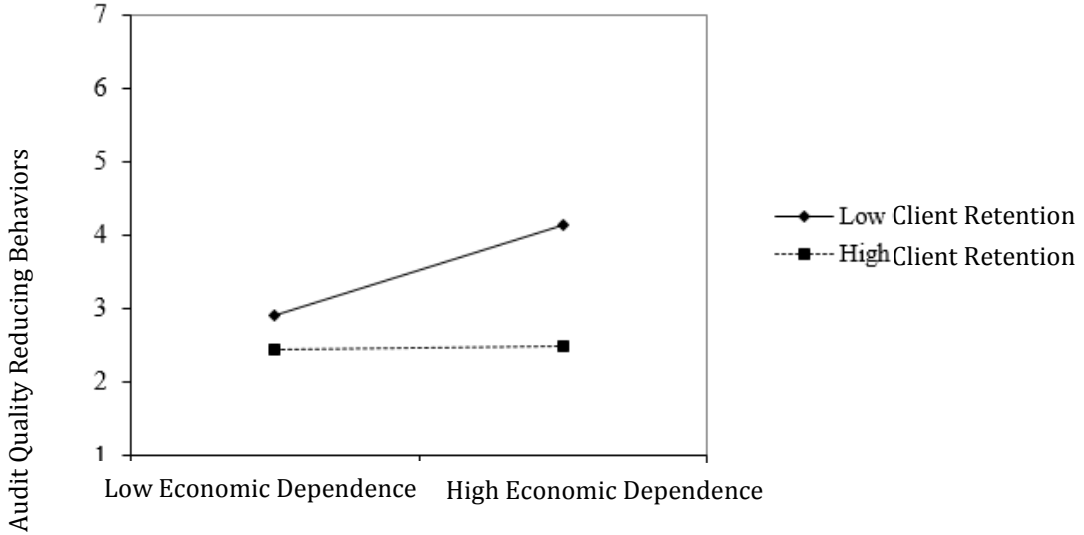


Figure 4 Interaction Plot for Professional- Beneficiaries Agency Problem



DISCUSSION AND CONCLUSION

In this study we developed a stakeholder–agency model of gatekeeper failure and tested the foundational tenets of this model using survey data from the Dutch audit industry. In support of this model, we found that the profit orientation and economic dependence of audit firms increases the risks of GAPs materializing in their relationships with their clients and beneficiaries, while specific governance practices that they feature, such as internal transparency practices and client retention policies, reduce the risk of GAPs encumbering these relationships. As such, this study has made three contributions to the literature.

Stakeholder–Agency Theory

Although stakeholder–agency theory is a powerful conceptual framework, with Hill and Jones' (1992) seminal contribution being one of the most highly cited papers in the stakeholder theory literature (Parmar, Freeman, Harrison, & Wicks, 2010), the empirical

development of this framework has not kept pace with its theoretical advancement, with only a few papers directly testing the foundational tenets of this theory (Agle, Mitchell, & Sonnenfield, 1999; Arora & Alam, 2005; Chen, 2009; Collier, 2008; Coombs & Gilley, 2005; Moroney, Windsor, & Aw, 2012). One reason for this is that it is inherently difficult to model and operationalize agency problems in firm-stakeholder relationships on account of there not being a readily available metric, such as firm value for example, that enables a valid operationalization of agency problems for different stakeholder groups (Jensen, 2002). Another problem involves data availability. Because the financial disclosures that public firms feature predominantly serve to inform equity investors, they will typically not be equally useful for capturing the costs that agency problems impose on non-shareholding stakeholders of the firm (Laplume, Sonpar & Litz, 2008).

This study shows, however, that one way to overcome these problems is by developing a contextualized stakeholder–agency model of audit firm-stakeholder relationships, and by using survey methods to operationalize the specific agency problems that encumber this type of firms, as well as the equally specific governance measures that they feature to remedy these problems. It also shows that the stakeholder–agency model is particularly useful to theorize and operationalize the stakeholder–agency relationships of gatekeepers more generally, as such firms routinely deal with conflicts of interests between different stakeholder groups and even owe their economic existence to mediating such conflicts. As such, this study has not only empirically corroborated the foundational tenets of the stakeholder–agency model it developed of gatekeeper failures, but it has also illuminated some of the core governance challenges that gatekeepers have to deal with, as well as certain specific governance practices they feature to meet these challenges. These challenges and practices are also relevant for the literature on the PSFs providing these services, which brings us to our second intended contribution.

Professional Service Firms

By showing how governance challenges and practices of audit firms affect the risk of GAPS materializing in their external stakeholder relationships, our research also contributes to the literature on the organizational design challenges of PSFs (Greenwood, Deephouse, & Li, 2007; Greenwood & Miller, 2010; Greenwood, Morris, Fairclough, & Boussebaa, 2010), particularly the design challenges faced by PSFs in traditional professions such as law and accounting (Greenwood & Empson, 2003). In a provocative contribution to the literature, Von Nordenflycht (2010) raised the question whether the configuration of practices that characterize such “classic PSFs” derive from their economic challenges of managing their critical dependency on human capital-intensive inputs and the delivery of intangible service outputs, or whether they can be traced instead to their professional context in which strong conflicts of interest between different stakeholders (Nanda, 2003) have resulted in the development of high degrees of professionalization and institutionalization (Von Nordenflycht 2010).

As this study demonstrates that at least some of the governance practices that audit firms feature are functional in mitigating the agency problems that encumber their relationships with clients and beneficiaries, it provides empirical support for the view that extant configurations of organizational practices in classic professions such as law and accounting can at least partially be traced to the conflicts of interests between different stakeholders characteristic for these professions. Although at first sight such practices may not appear to be efficiency enhancing (Von Nordenflycht 2010), they are nevertheless useful in mitigating conflicts of interests between different stakeholders that will need to be resolved in a sustainable way in order to secure the integrity and livelihood of the profession as a whole. Consequentially, the stakeholder-agency model that we develop in this study can fruitfully be extended in future research on the governance and organizational design practices of other PSFs types. Specifically, we expect that our model will generalize towards PSF types that either routinely face conflicts of interests between

their most important stakeholders, such as law firms or investment banks, or that are inherently involved in serving multiple stakeholder groups simultaneously, such as business schools (Triesmann, Dennis, Northcraft, & Niemi, 2000).

Finally, our finding that the profit orientation and economic dependency of audit firms increase the risk of GAPS materializing in relationships with clients and beneficiaries signals that the documented move in the audit context from more professional organizational templates, such as the P² configuration (Greenwood & Empson, 2003; Greenwood et al., 1990), towards more commercial organizational templates, such as the MPB configuration (Cooper et al., 1996; Muzio, Kirkpatrick & Kipping, 2011), may come at the price of harming those vulnerable stakeholder interests that professional institutions and traditional organizational configurations have sought to protect. This creates new challenges for both regulators and audit firms, to which we turn now.

Organizational Remedies for Gatekeeper Failures

Although the predominant response to gatekeeper failures has been to tighten regulation and proliferate enforcement measures, several scholars have voiced the concern that an over-reliance on external regulation and enforcement will not effectively remedy gatekeeper failures in general and audit failures more specifically (Bayou et al., 2011; Carnegie & Napier, 2010; Hogan & Wilkins, 2008; Humphrey, 2011; Sikka, 2009; Wyatt, 2004). An important reason for this is that the behaviors involved in these failures are difficult to observe and detect by external enforcement agencies, and therefore cannot be sufficiently deterred by regulation.

Through the present study, we discovered that the specific governance practices that audit firms feature, such as internal transparency practices and client retention policies, reduce the risk of GAPS materializing in the agency relationships these firms maintain with their clients and beneficiaries. From this we conclude that effective mechanisms to combat audit failures frequently reside at the level of the organizations

providing these services (Malone & Roberts, 1996). Both policy makers and researchers designing future studies on the topic of gatekeeper failure are therefore advised to focus more on the organizational context in which audit services are produced (Gendron, 2002; Hopwood, 1996; Humphrey et al., 2009; McNair, 1991; Pierce and Sweeney, 2004; Power, 1995; Power, 2003). We believe that such a focus on the organizational level of analysis would be conducive to overcoming “the apparent contradiction between [audit] firms’ espoused commitment to audit quality and the apparent absence of measures that deal directly with prevention and detection of quality threatening behaviors” (Pierce & Sweeney, 2006, p.36).

APPENDIX A EMPLOYED SCALES

Audit quality reducing behaviors (α : 0.87)

How often do these behaviors present themselves at your firm?

1. Reduction of the work below what is considered reasonable.
2. Superficial review of client documentation.
3. Acceptance of weak client explanations.
4. Failure to research a questionable item.

Overcharging (α : 0.90)

How often do these behaviors present themselves at your firm?

1. Overestimating clients' risk in order to engage in more audit procedures.
2. Suggesting unnecessary additional services.
3. Charging senior fees when a junior performed the job.
4. Overstating the amount of work that needs to be done.
5. Shifting hours from audit to audit-related services.
6. Shifting hours from audit to non-audit services.
7. Reducing the number of hours without reimbursing the client.
8. Appointing a less qualified team than promised in the offer.
9. Reducing the number of hours within the fixed-fee contract.

Profit orientation (α : 0.77)

Could you please indicate your level of agreement with the following statements?

1. My firm is mainly concerned about the generation of profits.
2. The 'bottom line' orientation of my firm is the generation of profits.
3. We closely monitor financial performance.
4. Our partners emphasize market performance.

5. Generating revenues is what matters most in my firm.
6. My income depends on the profit I realize for my firm.
7. Our incentive structure rewards revenue generation.

Economic dependence (α : 0.77)

Could you please indicate your level of agreement with the following statements?

1. The income of my office/business unit depends to a large extent on revenues coming from one or two of our largest clients.
2. The bankruptcy of one of our clients could jeopardize the survival of my firm.
3. My office/business unit does not economically depend on any particular client.
4. Losing one of our clients can impact the revenues of my firm/business unit considerably.

Internal transparency (α : 0.80)

Could you please indicate your level of agreement with the following statements?

1. If a senior does something which is not permitted, someone in the organization will find out about it.
2. If a junior does something which is not permitted, a senior will find out about it.
3. If a colleague does something which is not permitted, I or another colleague will find out about it.
4. If I criticize other people's behavior, I will receive feedback on any action taken as a result of my criticism.
5. In my immediate working environment, there is adequate awareness of potential violations and incidents in the organization.
6. Management is aware of the type of incidents and professional misconduct that occur in my immediate working environment.

Client retention (α : 0.84)

Clients can sometimes exert too much pressure to sign off on doubtful items. 'Walking away' from such a client means the discontinuation of the relationship with that client.

Could you please indicate your level of agreement with the following statements?

1. My firm would back my decision to walk away if a client exerts too much pressure.
2. It is seen as positive by my firm to walk away when a client exerts too much pressure.
3. I am supported when I discontinue the relationship with a client exerting too much pressure.
4. Walking away from a threatening client will positively affect my career.
5. Walking away from a threatening client will negatively affect my relationship with colleagues.

Professional commitment (α : 0.87)

Could you please indicate your level of agreement with the following statements?

1. I am deeply glad that I chose this profession over others I was considering at the time I joined.
2. My RA is a significant part of my working life.
3. I consider the RA designation as a significant accomplishment in my career.
4. I am proud to tell my friends that I am a RA.
5. I identify myself as a RA in my working environment.
6. I feel pride when I see other RAs being recognized.
7. I deeply care about the future of the RA profession.

Specialization (α : 0.70)

Could you please indicate your level of agreement with the following statements?

1. I can be employed for any service my firm provides.
2. I lack proper training for certain services my firm offers.
3. My expertise enables me to serve every client in any sector.
4. Because my work is specialized, I can only serve a limited amount of clients.
5. I am competent in every field of expertise my firm offers.

Centralization (α : 0.85)

Could you please indicate your level of agreement with the following statements?

1. There can be little action taken until a managing partner approves a decision.
2. A junior who wants to make his own decision would be discouraged here.
3. Even small matters have to be referred to the managing partners for a final answer.
4. Consent of managing partners is needed before any decision can be made.
5. Seniors have to approve all decisions.

CHAPTER 3. WINNING AT A LOSING GAME? ADVERSE BEHAVIORAL CONSEQUENCES OF TOURNAMENT-LIKE PROMOTION SYSTEMS⁴

Abstract

Tournament-like promotion systems are believed to provide powerful incentives to employees to maximize work effort. A less frequently acknowledged consequence of tournament-type incentives, however, is that they can also trigger self-interested and strategic behavior. Prior research on tournament-like promotion set-ups has identified two influential design parameters that could trigger such behaviors, notably the degree of intensity of competition and the relative difference in pay between winners and losers. This study comprehensively tests whether or not these two design parameters explain self-interested and strategic behavior in a unique empirical context in which tournaments are highly prevalent and behavioral risks have serious consequences, namely the audit partnership. Survey results from a European sample of non-partnered auditors suggest that intense competition produces self-interested and strategic behavior. Yet, contrary to our expectations, the relative pay difference has no significant effect on self-interested behavior, but *does* negatively affect strategic behavior. Overall, our study suggests that tournament-like promotion systems in audit partnerships yield unintended behavioral consequences that can have a very negative societal impact.

⁴ This chapter is co-authored with Prof.Dr. Pursey P.M.A.R. Heugens and Prof.Dr. J. (Hans) van Oosterhout. It has been presented at the Accounting, Behavior and, Organizations section meeting of the American Accounting Association Annual Meeting (2014).

INTRODUCTION

A prevalent feature of the contemporary organizational landscape is the use of rank-order contests to organize labor competition (Connelly, Tihanyi, Crook, & Gangloff, 2013). These contests are used widely when employers are faced with monitoring problems and information asymmetries (Becker & Huselid, 1992; Lazear & Rosen, 1981), though there is only limited research available in the management field on their use (Bothner, Kang, & Stuart, 2007). At the market level, investment funds (Acker & Duck, 2006; Brown, Harlow, & Starks, 1996) and the chicken broiler industry (Knoeber & Thurman, 1994) organize labor competition by basing rewards on rank-order performance. Contests are also prevalent in the area of innovation where rank ordering is used to generate the most creative ideas (Boudreau, Lacetera, & Lakhani, 2011; Terwiesch & Xu, 2008). At the organizational level, rank-order contests are used in the context of intra-organizational strategic human resource practices, such as the allocation of CEO positions (Conyon, Peck, & Sadler, 2001; Kini & Williams, 2012; Main, O'Reilly, & Wade, 1993; O'Reilly, Main, & Crystal, 1988), the organization of internal promotion in law firms (Kordana, 1995; Price, 2003), and the organization of academic tenure (Gomez-Meija, Trevino, & Mixon, 2009). In these contests, rank is the most important thing that matters and, therefore, the chance of winning and reaping the rewards depends not only on one's own performance, but also on the performance of his or her competitors (Becker & Huselid, 1992; Ehrenberg & Bognanno, 1990).

The dominant framework used to analyze the design and outcomes of rank-order contests is tournament theory (Lazear & Rosen, 1981; Rosen, 1986; Rosenbaum, 1979). The crux of tournament theory is that several contestants compete for a prize that is awarded based on relative rank rather than absolute performance (Lazear & Rosen, 1981). Two design parameters define the structure of any rank-order tournament, namely (1) the degree of intensity of competition, also referred to as *crowding*, and (2) the relative value of the prize for winning the contest, also referred to as the *pay spread* (Connelly et al., 2013;

Harbring & Irlenbusch, 2003). While these design parameters are thought to provide powerful incentives to contestants to maximize effort, a less frequently acknowledged consequence of tournament-type incentives is that they trigger self-interested and strategic behavior (Dye, 1984; Lazear, 1989), and that this behavior can have detrimental consequences.

Even though tournament theory is a powerful framework with which to analyze the behavioral outcomes of rank-order contests, we still lack a comprehensive assessment of the behavior produced by tournaments in an organizational setting (Bothner et al., 2007; Connelly et al., 2013). Research in this area is scarce for the same reason that tournaments are used to begin with: data on individual performance and behavior are difficult to obtain in an organizational setting (Bothner et al., 2007; Connelly et al., 2013; Main et al., 1993). Sports competition, however, has provided a natural research setting that has informed management scholars of the potential limitations of rank-order tournaments (Becker & Huselid, 1992; Bothner et al., 2007; Ehrenberg & Bognanno, 1990). We intend to develop tournament theory by analyzing an empirical context in which tournaments are highly prevalent and the behavior they produce is of great consequence.

The audit industry is an ideal context in which to test the behavioral implications of tournaments. As professional partnerships, audit firms deliver intangible and customized services that are the product of team effort (von Nordenflycht, 2010). The resulting indivisibility of audit work makes it particularly difficult to observe and assess individual auditor performance (Causholli & Knechel, 2012). This is why the vast majority of audit firms have adopted tournament-like, up-or-out promotion systems to manage their human capital (Greenwood & Empson, 2003). The tournament's design parameters set powerful incentives that influence auditor behavior. Given the societal importance of the audit in terms of corporate accountability, investor confidence, and the integrity of financial systems, understanding what drives auditor behavior is particularly significant.

We develop a model to assess whether or not the two design parameters of tournament-like, up-or-out promotion systems induce auditors to either improve their own performance by engaging in self-interested behavior (behavior that reduces the quality of the audit or that deliberately distorts its information value; Baiman, 1990; Harbring & Irlenbusch, 2008) or to behave strategically by undermining the performance of competitors (by reducing both organizational citizenship behavior and professional skepticism; Lazear, 1989). Ultimately, in potentially reducing the quality of the audit, this behavior may diminish the public's trust in the financial system in general and in audit firms as corporate gatekeepers in particular (Francis, 2011).

To investigate the influence of crowding and pay spreads on self-interested and strategic behavior in audit firms, we use structural equation modeling on survey data from 405 German, Dutch, and Belgian non-partnered auditors. Our results extend tournament theory to the context of the audit firm by establishing that crowding increases both types of self-interested behavior (audit quality reducing behavior and deliberate distortion) and one type of strategic behavior (reduction of professional skepticism). Contrary to our theoretical expectations, we find that greater pay spreads actually *reduce* one type of strategic behavior (economizing on organizational citizenship behavior). As such, we demonstrate that the behaviorally relevant organizational design parameters defined by tournament theory are consequential in the context of audit firms and possibly other types of professional partnerships.

Our study contributes to the organizational literature in three ways. First, unlike most current studies that focus on the effects of the tournament prize on increasing contestants' effort (Bognanno, 2001; Connelly et al., 2013; O'Reilly III et al., 1988), we provide a comprehensive assessment of the effects of two design parameters of tournament set-ups, crowding and pay spreads, on behavior. We also refine our current understanding of the unwanted behavior that might be produced by tournament-like promotion systems. Second, we extend tournament theory's scope by applying it in a new

context and to a new organizational form. The audit industry is a relevant area of application, because of the central role audit firms play in safeguarding the integrity of financial markets. The great societal stakes involved thus make it worth our while to explore whether tournament-type promotion systems are a desirable human resource management practice in this context. Furthermore, all audit firms are organized as professional partnerships, allowing us to apply tournament theory to this novel organizational setting (Connelly et al., 2013). The professional partnership form enables us to assess the behavioral response of a range of lower-level professionals to tournament-like promotion set-ups, whereas most prior researchers have confined themselves to studying top management teams (Conyon et al., 2001; Kini & Williams, 2012; O'Reilly III et al., 1988; Ridge, Hill, & Aime, 2014). Third, our study also directly speaks to the literature on professional partnerships, the dominant form of enterprise organization in gatekeeping professions (Greenwood & Miller, 2010; von Nordenflycht, 2010). We show that auditors face perverse incentives that have the potential to produce behavioral outcomes that undermine the trust attributed to gatekeepers (Francis, 2011; Knechel, Niemi, & Zerni, 2013). Professional partnerships therefore need to balance the risk of unintentionally producing self-interested and strategic behavior with the economic benefits associated with managing human capital through tournament-like, up-or-out promotion systems.

THEORY

Tournament Theory

The key idea underlying tournament theory is that contestants compete for a prize that is attributed based on relative rank rather than absolute performance (Lazear & Rosen, 1981; Lazear, 1989). Given that the tournament's prize can only be granted to a single contestant or team, the winner's gain directly results in the other contestants' loss and tournaments are thus characterized as zero-sum games (Becker & Huselid, 1992; Lazear & Rosen, 1981; O'Reilly et al., 1988).

Usually, all contestants in a tournament have comparable credentials and formal qualifications upon entry, while differences in ability level tend to be largely unobservable prior to the start of the tournament. This makes determining and metering the *absolute* level of an individual's performance extremely difficult (Kini & Williams, 2012). Absolute levels of individual performance are often only perceptible to the individuals in question, and therefore remain largely opaque to assessors. Rank ordering the *relative* performance of competing individuals then provides a more viable solution, because it enables assessors to distinguish between competitors on the basis of both objective and subjective criteria over the course of time, without having to assess each contender's performance against absolute or universalistic benchmark criteria (Bothner et al., 2007; Lazear & Rosen, 1981).

Tournament Design

The two design parameters, crowding and the pay spread, should, in theory, provide powerful incentives for contestants to increase effort levels (Becker & Huselid, 1992; Connelly et al., 2013; Conyon et al., 2001; Greenwood et al., 2005; Price, 2003). In general, crowding is understood as a measure of the intensity of competition as it refers to the number of contestants vying for the tournament's prize (Bothner et al., 2007). The number of contestants directly affects the chances of winning the tournament and can therefore influence the contestants' behavior (Coffey & Maloney, 2010).

The second design parameter, the value of the prize for winning the contest (Connelly et al., 2013; Ericksson, 1999; Harbring & Irlenbusch, 2003; Lazear & Rosen, 1981; Main et al., 1993; Ridge et al., 2014) is generally understood in terms of the absolute difference between the winner's compensation and the compensation of the runner-up, or the pay spread (Becker & Huselid, 1992; Connelly et al., 2013; Knoeber & Thurman, 1994). More so than absolute compensation, it is the pay spread that drives contestants to exert the maximum amount of effort to win the tournament because it creates a meritocracy in

which greater effort is rewarded by higher (future) returns (Bloom, 1999; Knoeber & Thurman, 1994; Lazear, 1989; Ridge et al., 2014; Shaw, Gupta, & Delery, 2002).

Tournament Behavior

An important question is whether tournaments elicit the desired kind of effort (Becker & Huselid, 1992; Lazear, 1989). Given the low probability of winning a significant prize, contestants might reduce productive effort (Nalebuff & Stiglitz, 1983; Taylor & Trogdon, 2002). Instead, contestants might be compelled to outstrip the competition (Bernheim, 1984; Dixit, 1987; Harbring & Irlenbusch, 2008) or even to engage in behaviors that damage other contestants' relative standings (Nalebuff & Stiglitz, 1983). Therefore, to increase the probability of receiving the prize, contestants can either engage in self-interested behavior to maximize their individual performance without regard for team objectives or act strategically to diminish the performance of their competitors (Drago & Turnbull, 1988; Henderson & Fredrickson, 2001; Lazear, 1989).

In order to outperform their competitors, contestants can choose to maximize their position in the rank ordering by engaging in self-interested behavior (Henderson & Fredrickson, 2001; Hvide & Kristiansen, 2003). Self-interested behavior includes all opportunistic acts that make one relatively better off and thus maximize the expected gains to the contestant (Baiman, 1990; Bothner et al., 2007). Self-interested behavior can materialize in two ways. First, contestants may opt to shirk, or exert less effort, cut corners, or produce less rigorous work to finish more quickly, move on to the next task, and appear more productive, thereby improving their standing in the rank ordering (Dye, 1984; Henderson & Fredrickson, 2001). The incentive to shirk is exacerbated by the difficulty of 'standing out in the crowd' and the notion that shirking can go unnoticed in large groups (free riding). Secondly, contestants may opt for compromising behavior. Compromising entails acts involving the willingness to make concessions (Chen, Ham, & Lin, 2011; Druckman, 1994), and therefore actively deviate from the desired option (more productive

effort) towards an alternative that may entail more risk in order to get ahead in the rank ordering (Hvide & Kristiansen, 2003).

Tournaments can also prompt contestants to act strategically to undermine the performance and ranking of the competition (Dixit, 1987; Harbring & Irlenbusch, 2008; Lazear, 1989; Rankin & Sayre, 2011). Strategic behavior entails all conscious acts taken to improve one's position in the race at the expense of competitors (Ansoff, 1987; Kilduff, Elfenbein, & Staw, 2010). Contestants are aware of the fact that the results of their own decisions are dependent upon the decisions made by the other contestants (McClintock & Liebrand, 1988), and will thus anticipate competitors' actions before making decisions in an effort to diminish their competitors' performance (Rankin & Sayre, 2011). Tournaments can induce two types of strategic behaviors. First, tournaments have the potential to reduce cooperative behaviors (Baiman, 1990; Lazear, 1989; Hayward & Hambrick, 1997). Second, because contestants can win the tournament by undermining other people's efforts, tournaments can even induce the outright sabotage of competitors (Dye, 1984; Harbring & Irlenbusch, 2008; Lazear, 1989). As saboteurs focus their efforts on diminishing their competitors' performance, they are able to retain the same probability of winning with less productive effort *and* reduce the chance of a competitor winning (Drago & Turnbull, 1988; Main et al., 1993). See Table 1 for the typology of undesirable behaviors that tournaments can produce.

Even though the behavioral limitations of a tournament set-up have been explored in the realms of athletics and promotions to CEO positions (Becker & Huselid, 1992; Bothner et al., 2007; Conyon et al., 2001; Ehrenberg & Bognanno, 1990; Main et al., 1993; Rankin & Sayre, 2011), we know little about how this behavior will materialize in specific organizational contexts (Connelly et al., 2013). The difficulty of gaining access to sensitive performance and effort data makes researching the unintended, unwanted behavioral consequences of tournaments in the organizational context particularly challenging. Our private and unique survey data in the audit context enables us to apply, test, and extend

tournament theory in an organizational setting in which the use of tournaments is prevalent and where negative behavioral consequences carry particularly large societal risks.

Table 1 Key Concepts and Operationalization

	Self-interested behaviors		Strategic behaviors	
Impacts	Conceptualization	Operationalization	Conceptualization	Operationalization
Internal	<u>Shirking</u> : avoid doing what should be done	Audit quality reducing behaviors	<u>Cooperating</u> : work together for mutual benefit	Organization citizenship behaviors
External	<u>Compromising</u> : risky concession-making	Deliberate distortions	<u>Sabotaging</u> : intentional withdrawal of efficiency	Professional skepticism

AUDIT CONTEXT

External auditors play an important role in society by providing financiers and other stakeholders with an independent assessment of the accuracy and honesty of their publicly listed clients’ financial statements (Barnier, 2010). By verifying and certifying financial information, they ensure that capital is allocated efficiently and that investors are protected (Coffee, 2006). Auditors are therefore seen as gatekeepers of the financial markets because capital market stability has come to depend heavily on their services (Coffee, 2006).

Auditors, however, have attracted increasing public interest due to their connection to the large corporate accounting scandals at the beginning of the millennium as well as to the 2008 financial crisis. In these instances, it seems auditors failed to meet the expectations associated with their gatekeeping role (Suddaby et al., 2009; Wyatt,

2004). This has not only weakened the credibility of the external audit, but has also increased awareness of the serious societal risks posed by auditor misbehavior.

In light of the important role that auditors play, it is crucial to understand *why* auditors might engage in behavior that appears to undermine the quality of their services (Barnier, 2010). Scholarly attention is currently being directed to the impact of audit firm ownership and governance on auditor behavior (Barnier, 2010; Jenkins, Deis, Bedard, & Curtis, 2008). In particular, audit firms' promotion and compensation systems are beginning to attract increased scrutiny (Knechel et al., 2013; Liu & Simunic, 2005).

Use of Tournaments in the Audit Industry

Because most audit firms are internally owned, outsiders know very little about their governance (Greenwood, Li, Prakash, & Deephouse, 2005; Jenkins et al., 2008). What we do know is that the primary source of competitive advantage for professional partnerships is human rather than financial capital (Greenwood et al., 2005; Hitt, Biermant, Shimizu, & Kochhar, 2001; von Nordenflycht, 2010). Recruitment of the best and the brightest business school graduates is essential to guaranteeing a firm's strong performance in the future and is the first human resource challenge the firm faces (D'Aveni, 1996; Hitt et al., 2001). Once these individuals are recruited, audit firms then face the challenge of *retaining* these highly mobile professionals (Pierce & Sweeney, 2004). Retention is critical to maintaining sufficient human capital as well as preserving the relational capital of auditors (Greenwood & Empson, 2003; Groysberg & Lee, 2009; Phillips, 2002).

In order to manage these human resource challenges, audit firms are almost universally run as professional partnerships (Lowendahl, 2005; Maister, 1993). This entices auditors to work for the firm by offering the prospect of a generous profit-sharing scheme, high status, and a say in strategic decision-making once they are promoted to partner (Greenwood & Empson, 2003). The resulting pecuniary and non-pecuniary compensation gap between a partner and a non-partner is substantial and serves to attract

and retain achievement-oriented and status-driven candidates (Ridge et al., 2014). The size of the partnership 'prize' is therefore comparable to an above-market wage rate and is thought to constitute a pay premium necessary to attract a promising auditor and prevent him or her from being bid away by competing firms (Capelli & Cascio, 1991; DeVaro & Waldman, 2012).

Yet, given the limited number of partner slots, choosing who will join the partnership is problematic (O'Keefe, Simunic, & Stein, 1994; von Nordenflycht, 2010). Performance evaluation is challenging because audit firms are burdened by severe information asymmetries (Eisenhardt, 1989; Greenwood & Empson, 2003). These result not only from largely unobservable processes by which an intangible service is arrived at (Balachandran & Ramakrishnan, 1987; Bedard, Deis, Curtis, & Jenkins, 2008), but also the notion that the quality of the output produced is opaque and typically reflects a team effort (Alchian & Demsetz, 1972). The difficulty of evaluating individual performance is compounded by the fact that auditors usually work at the client's location, out of sight of the partners, and that auditors work on different assignments, making comparison difficult.

In order to reach an internal promotion decision, audit firms rely on a unique up-or-out⁵ promotion system. The system is based on the premise that only the best candidates will be promoted to partner, and everyone else will be asked to leave the firm (Maister, 1993; Morris & Pinnington, 1998). In order to identify the best candidates, the up-or-out promotion policy assesses relative (rather than absolute) individual productiveness in order to produce a rank ordering of competitors (Greenwood & Empson,

⁵ The Cravath model was the first instance of this type of promotion system, prevalent in traditional US and UK law firms (Sherer, 1995). It consisted of hiring a stable group of non-partners and creating a system of internal competition (Malhotra et al., 2010). It was a means to optimally develop human assets by thoroughly training and mentoring lawyers before they went up for partnership. Young lawyers were not seen as a source of revenue, but as long-term investments (Cunningham, 2012; Price, 2003). The final promotion decision was based on a rank order of the young lawyers' performance.

2003). In theory, the promotion decision is based on the total contribution a non-partner has made to the audit firm compared to the contributions made by other competitors (Morris & Pinnington, 1998). This total contribution can be divided into two components. One consists of the measurable, tangible qualities of the non-partner, such as his or her technical skills, work experience, profit contributions, and client retention and acquisition abilities (Gilson & Mnookin, 1989; Kornberger, Justesen, & Mouritsen, 2011). The second component consists of more subjective, immeasurable personal attributes such as cooperativeness, temperament, integrity, and stewardship (Gilson & Mnookin, 1989; Morris & Pinnington, 1998). In practice, however, due to differences in measurability, these two components will not be evaluated equally, as partners are likely to disproportionately weigh the measurable, tangible qualities of competitors more heavily. This enables partners to determine a final score for each competitor that is used to determine the rank ordering.

Like other rational players in the economy, we expect auditors to be susceptible to the incentives implicit in the design parameters of an audit firm's promotion system (Liu & Simunic, 2005). We will now investigate how the two design parameters of tournament-like promotion systems, crowding and pay spreads, have the potential to influence auditor behavior. These parameters have been shown to produce self-interested and strategic behavior in other organizational contexts (in sports, for example), and we argue that that the same may hold in this context as well.

HYPOTHESES DEVELOPMENT

The Impact of Crowding

In the audit firm, non-partnered auditors experience at least some degree of crowding as a direct consequence of up-or-out policies. The degree of crowding is defined as the number of available partner slots divided by the number of non-partnered auditors who are in direct competition for promotion to partner. The limited availability of partner slots is

necessary for the achievement of an optimal amount of profit per partner (DeVaro & Waldman, 2012; Lowendahl, 2005). Taking on too many partners could risk decreasing the profits per partner (Maister, 1993; Morris & Pinnington, 1998). Therefore, the number of partner slots in any professional service firm is generally low and, consequently, the level of crowding is generally high (DeVaro & Waldman, 2012; Morris & Pinnington, 1998).

From the perspective of individual auditors, crowding determines the likelihood of being promoted to partner. Given the generally high degree of crowding, the likelihood of being promoted to partner is low (Bothner et al., 2007; Coffey & Maloney, 2010; Connelly et al., 2013). Fiercer competition could, therefore, adversely affect career prospects. Crowding also involves a process dynamic, since several years separate the moment at which a fresh graduate enters the firm and the moment a final rank ordering is disclosed (Bothner et al., 2007). In this period of time, which lasts thirteen years, on average, in large audit firms (Guinn et al., 2004), crowding around a particular position will influence behavior (Bothner et al., 2007; Hvide & Kristiansen, 2003). Being uncertain of the outcome for this length of time could, therefore, elicit self-interested behavior (Sitkin & Pablo, 1992). Furthermore, crowding also complicates the monitoring of performance and behavior because of the reduced visibility of auditors' actions (Kandel & Lazear, 1992). This provides contestants with the freedom to behave in self-interested ways in order to secure their position in the race.

The first type of self-interested behavior seen in tournaments is shirking (Dye, 1984). In the audit context, shirking may reduce audit quality. Audit-quality-reducing behavior can be defined as 'auditors' failures to properly execute audit steps' (Malone & Roberts, 1996, p.49). This behavior includes cutting corners, failing to pursue questionable items in client disclosures, or decreasing the amount of work to a level below what is considered necessary to produce a reliable audit (Herrbach, 2001; Otley & Pierce, 1996). Shirking has the positive side-effect of reducing the costs involved in the audit and of freeing up time to pursue other billable hours (McNair, 1991). Because audits are executed

on a fixed-fee basis, these gains can be retained in the firm's profit pool (Ettredge, Bedard, & Johnstone, 2003). The subsequent increase in revenue is visible to and appreciated by the partners. Because monitoring auditors is difficult, this may result in partners assessing shirking auditors more favorably. By cutting corners, auditors reap the individual, short-term benefits of the cost savings, and only *share* in any long-term, negative effects, if at all.

The second type of self-interested behavior tournaments may induce is compromising (Hvide & Kristiansen, 2003). In the audit setting, crowding can tip the balance when non-partnered professionals weigh the risks associated with deliberately distorting the audit findings against the risk of losing the client. Compromising behavior, therefore, manifests itself in risky, deliberate distortion. Deliberate distortion is defined as all intentional misrepresentation of the evaluation of financial statements by auditors, which, if discovered, would damage the credibility of the profession. Satisfying clients by succumbing to pressure to turn a blind eye to inaccurate (or even fraudulent) reporting can promote client retention as well as improve the prospects for future business (Suddaby et al., 2009). As such, engaging in deliberate distortion has the potential to put a competitor in a relatively better position in the rankings. Therefore, auditors may deliberately distort audit findings by biasing sample selection towards less troublesome items or consciously misestimating items in order to please the client and secure future business. Hence, we hypothesize:

H1a: The higher the degree of crowding, the greater the incidence of self-interested behavior in audit firms.

Secondly, crowding may also influence *strategic* behavior (Dixit, 1987; Lazear, 1989). Strategic behavior refers to all acts aimed at undermining the performance of competitors in order to increase one's own rank-order position. Auditors know their competitors and frequently share a workplace with them, and recognize that their goal

attainment is negatively linked to that of these fellow contestants. This relational tie between auditors creates rivalry (Kilduff et al., 2010, 2012). Rivalry is fostered by (increased) crowding. In acknowledging that the odds *against* him or her grow the more participants enter the contest, the auditor will be disproportionately focused on achieving superior relative performance (Kilduff et al., 2012). Rivalry, therefore, has the power to raise the stakes of the competition and drives contestants to outperform their rivals (Kilduff et al., 2012). As a result, rivals engage in strategic behavior in order to secure their position in the race.

In a tournament set-up, strategic behavior can manifest itself as a decrease in cooperative behavior (Baiman, 1990; Lazear, 1989). As the audit is a product of team effort, auditors may want to strategically *avoid* cooperating with competitors in order to prevent them from moving up in the rank ordering (Drago & Turnbull, 1988). Declining cooperation will result in less organizational citizenship behavior, or helpful behavior towards colleagues that cumulatively benefits the firm (Podsakoff, Mackensie, Paine, & Bachrach, 2000). This type of behavior involves actions such as helping new recruits, doing rigorous work, or adjusting one's agenda to help colleagues. Podsakoff and colleagues (2000) specify that this type of behavior is 'discretionary, not directly or explicitly recognized'. Therefore, even though, at the aggregate level, this type of behavior may benefit the firm as a whole, it is difficult to observe for the partners and creates an unrecognized, heavier workload for the helpful auditor. Furthermore, an auditor's helping a competitor may improve that individual's relative position in the rankings at the expense of his or her own.

A second type of strategic behavior consists of the outright sabotage of a competitor's performance for the personal gain of the saboteur (Dye, 1984; Lazear, 1989). As audits are the product of team effort, auditors can sabotage competitors' performance by riding free on their efforts. One way of doing this is by individually reducing professional skepticism. Professional skepticism refers to 'the propensity of an individual to defer

concluding until the evidence provides sufficient support for one alternative explanation over others' (Hurrt, 2010, p.151; Nelson, 1992). This includes double-checking information and seeking advice from experts (Hurrt, 2010). In a team setting, it is very difficult to discern which members exert more or less effort, so refraining from being professionally skeptical can go undetected. Failing to exercise professional skepticism can deprive the team of important and/or necessary information, thereby reducing the overall quality of the audit and diminishing the public's trust in the profession (Harbring & Irlenbusch, 2011). Hence:

H1b: The higher the degree of crowding, the greater the incidence of strategic behavior in audit firms.

The Impact of Pay Spreads

The pay spread is the absolute difference between an auditor's pay at his or her current level and what he or she would be earning as a partner. Given that partners share in the profits while non-partnered professionals are salaried, there is a substantial pay gap between partners and non-partners (Malos & Campion, 1995). From the perspective of the individual auditor entering the promotion contest, the substantial pay spread is a very powerful incentive.

Drawing on agency theory (Eisenhardt, 1989), the principals of the audit firm are the partners who delegate some of their decision-making to the non-partners (the agents) (Herrbach, 2001). Given that the partners have their economic as well as reputational capital tied to the firm, they are more risk-averse than the non-partners who have relatively less to lose if they are fired (Aranya & Ferris, 1984; Milgrom & Roberts, 1992). According to behavioral agency theory (Tosi & Gomez-Meija, 1989; Pepper & Gore, 2012; Wiseman & Gomez-Meija, 1998), agents have a higher propensity to take short-term risks in order to advance their own interests (i.e. increasing their rank-order position).

Although employing an up-or-out promotion system is believed to align the interests of the agents with the interests of the firm by enhancing performance (Wiseman & Gomez-Meija, 1998), this practice might actually exacerbate self-interested behavior. Given that auditors stand to gain a great deal if they are promoted, but will lose relatively little if they do not make the cut, auditors are compelled to increase self-interested behavior and risk taking in order to be promoted to partner (Devers, Wiseman & Arrfelt, 2008; Sanders, 2001). Given that large gains require big risks (Core, Guay & Larcker, 2003; Sanders & Hambrick, 2007), auditors might engage in more self-interested behavior, such as audit-quality-reducing behavior and deliberate distortion to diminish the relative standing of competitors, since they will only reap the benefits for as long as the firm bears the residual risk these behaviors entail.

H2a: The greater the pay spread, the higher the incidence of self-interested behavior in audit firms.

Second, greater pay spreads may also lead to an increase in strategic behavior by decreasing the likelihood of competitors engaging in cooperative behavior (i.e. decreased organizational citizenship behavior) and increasing the likelihood of sabotage (i.e. decreased professional skepticism) (Henderson & Frederickson, 2001; Fredrickson et al., 2010). Drawing on deprivation theory (Cowherd & Levine, 1992; Milgrom & Roberts, 1988), if competitors feel that they receive less compensation than they are entitled to or deserve compared to others, they will perceive this as unjust (Boivie, Bednar, & Barker, 2012) and will therefore feel deprived. This leads to employee dissatisfaction (Martin, 1981), which is associated with a reduction in cooperation, team-cohesiveness, and commitment to the broader goals of the organization (Henderson & Fredrickson, 2001; Milgrom & Roberts, 1988). A large pay spread is likely to result in feelings of deprivation amongst non-partnered auditors generated by the prospect of the winning competitor

earning (so much) more than the 'losers' in the future. As a direct consequence of this deprivation, auditors will be more likely to engage in strategic behavior such as decreasing organizational citizenship behavior as well as decreasing professional skepticism.

In addition, the size of the prize is not always the main motivator of individual behavior (Connelly et al., 2013). Individuals derive utility not only from financial rewards, but also from social ones. Therefore, as Connelly and his colleagues (2013) suggest, researchers should also pay attention to more complex psychological phenomena. According to motivation crowding theory (Frey & Jegen, 2001), competitive environments emphasizing pecuniary rewards (extrinsic rewards) will lower, or 'crowd out', the utility derived from social rewards (intrinsic rewards). Intrinsic rewards consist of gratifying interpersonal relationships, personal fulfillment resulting from excelling at one's job, the esteem of other colleagues, and job security, for instance (Connelly et al., 2013). However, by emphasizing (large) extrinsic rewards, audit firms may 'crowd out' the motivation to pursue intrinsic rewards (Osterloh & Frey, 2000; Foss, 2011). This happens in two ways. First, focusing predominantly on pecuniary rewards reduces self-regulation (Deci et al., 1999; Frey & Jegen, 2001). This means that extrinsic control replaces intrinsic motivation and, as a consequence, auditors may take less responsibility for motivating themselves, and may therefore reduce effort (Deci et al., 1999). Second, extrinsic rewards can diminish self-esteem because auditors may feel that their intrinsic motivation and competence are not acknowledged (Frey & Jegen, 2001). Again, this reduction in self-esteem may negatively affect effort. Overall, by emphasizing formal, extrinsic rewards, audit firms prioritize behavior that can be directly linked to enlarging the profit pool over behavior that is pro-social in nature and benefits the entire firm (Connelly et al., 2013; Gore & Pepper, 2012;). As a consequence, professional skepticism and organizational citizenship behavior may be crowded out in firms with high pay spreads (Frey & Jegen, 2001). Therefore, we hypothesize:

H2b: The greater the pay spread, the higher the incidence of strategic behavior in audit firms.

METHODS

Data Collection and Sampling

As no public data are available to test our hypotheses, a web-based survey was issued among all non-partnered certified public accountants (CPAs) registered with the German, Dutch, and Belgian professional associations. It consisted of an initial invitation e-mail and two follow-up reminders endorsed by either the Belgian professional association (IBR-IRE) or Dutch or German top national business schools.⁶

The sampling frame consisted of the e-mail addresses of all CPAs registered with the respective national professional associations. This resulted in a total of 8246 e-mail addresses for Germany, 9070 for the Netherlands, and 1021 for Belgium. These e-mail addresses included both CPAs working for audit firms and CPAs working for other institutions. The CPAs of interest to us are salaried auditors, employed by an audit firm as they face the tournament-like promotion pressures we are investigating. Partners are excluded because they no longer compete in the tournament (Ridge et al., 2014). In order to sample the auditors of interest to us, the first page of the survey filtered out the CPAs that do not work for an audit firm. The next page then screened the hierarchical level of the respondents (partner or salaried auditor). 819 CPAs completed the survey in full, of which 405 CPAs were salaried (43 Belgian, 95 Dutch, and 267 German salaried CPAs). The other respondents were partners who were presented with a different set of questions intended for a different study. The participants were employed by the Big Four audit firms (PwC, KPMG, Deloitte, EY) in the three countries and 112 other public audit firms. The lack of ex-ante information on the employing organization and hierarchical status of CPAs makes calculating the precise response rate impossible.

⁶ Names not disclosed in order to maintain the anonymity of the authors.

The audit markets in the three countries of interest are comparable, as 85% of the publicly-listed firms are audited by the Big Four audit firms (Barnier, 2010). All three countries are also home to a strong mid-tier audit segment serving large non-listed firms. The organization of the profession is comparable across these countries with a central national professional association responsible for monitoring the profession. These countries are also similar at an institutional level as audit firms are all subject to code law and similar levels of regulatory enforcement (Leuz et al., 2003).

Instrument Development

The survey consisted of seven psychometric scales. We relied on four existing scales validated in prior research. The remaining three scales were developed specifically for this study. The corresponding items of these scales were developed based on commonly accepted theoretical definitions of the constructs (Ghiselli, Campbell, & Zedeck, 1981). Following canonical scale development procedures and after item reduction from a pool of items, we generate five concise and theoretically precise items per construct in order to minimize response bias without compromising construct validity (Hinkin, 1998; Schrieschies & Eisenbach, 1990; Schwab, 1980) (see Appendix 1). In order to avoid order effects, the items for each scale were presented in a random order to the participants.

In order to make sense of complex relationships between latent variables consisting of many items, we make use of structural equation modeling. To rigorously estimate the structural equations, we first use a partial disaggregation strategy (parceling) to link our indicators to their corresponding constructs (Little, Cunningham, Sharar, & Widaman, 2002). Parceling is preferred over the use of single indicators not only because single indicators often have lower reliability and smaller common-to-unique variances, but also because parcels reduce the number of parameters to be estimated (Coffman & McCallum, 2005; Kishton & Widaman, 1994; Little et al., 2002; Williams & O'Boyle, 2008). By using the domain representativeness approach, we created three parcels for each latent

variable (Kishton & Widaman, 1994). This entails the item with the highest factor loading on the latent construct being assigned to parcel 1, the item with the second-highest loading to parcel 2, and the item with the third-highest loading to parcel 3. The other items are assigned in reverse order.

All items were measured on seven-point Likert scales. Our dependent variables consisted of four general constructs operationalized in the audit context (Table 1). Two constructs capture self-interested behavior. *Audit-quality-reducing behavior* (α : .89) is a proxy for shirking. It is an existing five-item scale that assesses the ‘poor execution of an audit procedure reducing the level of evidence gathered for the audit, so that the collected evidence is unreliable, false, or inadequate quantitatively or qualitatively’ (Herrbach, 2001, p.790; Otley & Pierce, 1996). It required participants to rate how often behaviors such as ‘accepting weak client explanations’ or ‘superficial review of client documentation’ occurred at their firm. *Deliberate distortion* (α : .89) is a proxy for compromising behavior. The scale is purposely developed for this study and consists of five items capturing the degree to which auditors consciously distort their evaluations of financial statements. Participants were asked to rate how often behavior such as ‘consciously biasing sample selection towards less troublesome items’ or ‘signing off on materially misstated items’ occurred at their firm. The two other constructs measure our second category of dependent variable, namely strategic behavior. *Organizational citizenship behavior* (α : .83), a proxy for cooperative behavior, is a nine-item scale adapted from Smith and colleagues (1983) by using those items with the highest factor loadings. It measures “‘behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate promotes the effective functioning of the organization” (Podsakoff et al., 2000). It includes items like ‘In my firm, we frequently adjust our agendas to help other colleagues’ and ‘We perform our job duties with extra-special care’. A reduction in *Professional skepticism* (α : .81) is used as a proxy for sabotage. It is an eight-item scale that was adapted from a multi-dimensional scale developed by Hurrt (2010). It aims to gauge

the 'propensity of an individual to defer concluding until the evidence provides sufficient support for one alternative explanation over others' (Hurrt, 2010, p.151). The scale has been adapted from the individual to the firm level and has been reduced to eight items by retaining those items that loaded highest on the five applicable underlying factors. One factor (self-confidence) was removed, as it is not applicable to the firm level and was replaced by the firm-level item 'My firm stimulates independent thinking'. Other items included 'In my firm, we take our time before making decisions' and 'In my firm we tend to accept what other people say at face value'.

We use two constructs as our independent variables. *Crowding* (α : .80) is a purposely-developed five-item scale capturing the competitive intensity within the audit firm. It can be understood as the perceived chance of partnership. It includes items like 'In my firm, only a small number of lower level auditors will become partners' and 'Many lower-level auditors compete for very few partner positions'. *Pay spread* (α : .90) is also a purposely-developed five-item scale measuring the perceived difference between a non-partnered auditor's pay and a partner's compensation (i.e. the prize for winning the contest). It includes items like 'Partners earn substantially more than any other rank in my firm' and 'In my firm, the pay gap between partners and the rest of the professionals is substantial'.

One construct served as a control variable. *Profit orientation* (α : .83) is a purposely-developed six-item scale capturing the extent to which respondents perceived that their firm was primarily concerned with the generation of profits. This scale has been included as a control variable because the degree of an audit firm's profit orientation is expected to affect the incidence of self-interested and strategic behavior (O'Keefe et al., 1994). It includes items like 'My firm is primarily concerned with generating profit' and 'Our partners emphasize market performance'. Several other items were also included in the survey as control variables. *Audit firm size* was operationalized using a dichotomous variable, assigned the value of 1 for a Big Four audit firm and 0 otherwise. A stream of audit

research contends that audit firm quality is not independent of audit firm size (DeAngelo, 1981). Therefore, we control for audit firm size as this may be positively related to the incidence of self-interested behavior and strategic behavior. *Gender* is captured by a dichotomous variable assigned the value of 1 if the participant is female, 0 if male. The literature suggests that women tend to be more risk-averse (Darley & Smith, 1995) and process information more carefully than men (Breesch & Branson, 2009). *Organizational level* is accounted for by including a dichotomous variable in the analyses that is assigned the value of 1 if the participant is a senior, 0 if the participant is a junior. Arguably, the closer the person is to promotion to partner, he or she will be more cautious in order to remain in the tournament in an attempt to win the prize (Ridge et al., 2014). *Academic achievement* is measured by a dichotomous variable assigned the value of 1 if the participant obtained a university degree, 0 otherwise. *Age* is also included as a control variable. *Country* dummies were included to control for any unobserved characteristics of the natural institutional context that could possibly have an influence on auditor behavior.

Data Reliability and Validity

We used several means to assess the reliability and validity of our data in order to avoid biased results (Hinkin, 1998; Shook, Hult, & Kacmar, 2004; Steenkamp & van Trijp, 1991). In order to test construct validity we assessed both convergent and discriminant validity. We confirm convergent validity as CFAs established that all indicators are significantly positively related to their associated latent variables (Carmines & Zeller, 1979; Kline, 2010; Steenkamp & Van Trijp, 1991). Convergent validity is further corroborated with the average variance extracted (AVE) for our latent constructs ranging between .57 and .80 (see Table 2).

We then assessed discriminant validity. First, we analyzed the multicollinearity between our variables of interest (Greene, 1993; Farrar & Glauber, 1967). The severity of multicollinearity was assessed using the variance inflation factor (VIF) (O'Brien, 2007). We

concluded that multicollinearity was not a concern given that the VIFs of all possible pairwise comparisons were appropriate (O'Brien, 2007). Second, we compared the fit of the unconstrained measurement model to that of a measurement model in which a pair of constructs is constrained to correlate fully (Hinkin, 1998; Kline, 2010). All possible pairwise comparisons were estimated and all constrained models demonstrated a poorer fit except for the combination profit orientation-pay spread and audit-quality-reducing behavior-deliberate distortion. This is not surprising, as both profit orientation and pay spread draw on the importance of the generation of revenues within the audit firm. The same goes for audit-quality-reducing behavior and deliberate distortion, which are marginally different because deliberate distortion refers to the same type of audit-quality-reducing behavior but with the addition of an element of intentionality. The combination of the absence of discriminant validity between sets of our endogenous variables and the high correlations between these variables urges us to take this into account in specifying the model. We therefore allow for the covariance between audit-quality-reducing behavior and deliberate distortion as well as the covariance between professional skepticism and organizational citizenship behavior. This decision was made because it makes sense to allow theoretically distinct, though related constructs to covary without having to fully combine both (Farrell, 2010; Howell, 1987; Scott & Bruce, 1994).

Construct reliability was established as the composite reliabilities of our constructs range between .85 and .98 (see Table 3). Additionally, the Cronbach alpha coefficients ranged between .80 and .90, which is well above the .70 cut-off point (Nunally, 1962).

We also checked the validity of our sample, which consists of three data sources. In order to assess the differences in means of our variables of interest, we conducted a one-way ANOVA. Through post-hoc testing, we concluded that no significant differences in means exist between Belgium and the Netherlands. Significantly higher means, however, were found for crowding, pay spreads, organizational citizenship behavior, and profit

orientation in Germany. The robustness checks will therefore include the models run separately on the German sample.

Lastly, as all the data included in this study are extracted from a common measurement context, there is a potential risk of common method variance (CMV) (Bagozzi & Yi, 1991; Podsakoff et al., 2003, p.879). As an ex-ante precaution, we randomized the order of items of different scales (Chang, van Witteloostuijn, & Eden, 2010). We also ensured that the relationships we tested through our study vary in terms of their directionality, to avoid 'capitalizing' on individuals' response styles. Post-hoc statistical techniques were also used to assess CMV. The Harman's single factor test rendered diagnostic evidence of the absence of CMV (Podsakoff & Organ, 1986; Podsakoff et al., 2003). However, it does not provide any evidence of method effects. Therefore, following Podsakoff and colleagues (2003), we compared the fit of a full measurement model to a measurement model in which all indicators are loaded onto a single method factor. The full measurement model yielded an adequate fit (χ^2 306.62; $p < .001$; RMSEA .04; CFI .99; GFI .93). The single factor model was worse (χ^2 4206.27; $p < .001$; RMSEA .31; CFI .60; GFI .36; $\Delta \chi^2$ 3959.23; Δ d.f. 21 $p < .001$). Hereafter, a trait-and-method model was estimated by adding a single method factor latent variable to the full measurement model (Cote & Buckley, 1987). This trait-and-method model fit the data better (χ^2 228.60; $p < .001$; RMSEA .04; CFI .99; GFI .95; $\Delta \chi^2$ 78.02; Δ d.f. 21; $p < .001$). Using the sum of squared loadings, we established that the amount of variance explained by the common method factor was 11 percent, which is well below the critical cut-off point of 25 percent (Williams, Buckley & Cote, 1989). Therefore, we can conclude that CMV is not critical to the analyses.

Model Specification

To empirically test our theoretical predictions, we run a structural equation model by using LISREL 8.80 with maximum likelihood estimation routines model (Jöreskog, 1966).

RESULTS

Table 2 presents the descriptive statistics, reliability and validity coefficients, and correlations of the latent variables, whereas Table 3 contains the SEM results pertaining to Hypotheses 1a – 2b. The theoretical model (Figure 1) fits our data well (χ^2 706.56; d.f. 244; RMSEA .07; CFI .96; GFI .89). The ratio of chi-square to degrees of freedom is 2.49, which is below the cut-off point of 3 (Carmines & McIver, 1981).

Hypotheses 1a and 1b predicted a positive effect of crowding on self-interested and strategic behaviors. The results fully support H1a, as crowding has a significant positive effect on audit-quality-reducing behavior ($\beta = .26$; $t = 2.84$) and on deliberate distortion ($\beta = .23$; $t = 2.40$). H1b, however, is only partially supported with a significant decrease in professional skepticism ($\beta = -.23$; $t = -2.35$). Hypotheses 2a and 2b predicted that higher pay spreads lead to more self-interested and strategic behavior. Our results do not support these hypotheses. We did, however, find the opposite of H2b to hold, with pay spreads *increasing* organizational citizenship behavior ($\beta = .20$, $t = 2.06$). In the discussion, we will provide an explanation of this counterintuitive finding.

Furthermore, we found a significant positive effect of audit firm size on professional skepticism and a significant negative effect of audit firm size on audit-quality-reducing behavior and deliberate distortion. This suggests that auditors at Big Four firms engage less often in self-interested behavior. Furthermore, women are significantly less likely to report audit-quality-reducing behavior and deliberate distortion than men. Women also tend to report significantly more professional skepticism than men. Lastly, a negative significant relationship exists between an auditor's age and his or her tendency to report audit-quality-reducing behaviors. This shows that when an auditor is closer to the final promotion to partner, he or she will be more cautious in order to remain in the tournament in an attempt to win the prize (Ridge et al., 2014). This is consistent with Miller and Chen's (2004) and Chen's (2008) findings, which establish that the closer someone is to promotion, the more risk averse that person will become. This also provides further

confirmation of the findings of Rosen (1986) and Knoeber & Thurman (1994) who establish that less-skilled and lower-ranked competitors are more likely to take risks as they have less to lose.

Robustness Checks

As the means of several of our variables of interest differ significantly between the German and the Belgian/Dutch samples, we ran the same theoretical model on the German subsample. The German sample supported H1a and H1b fully. The effect of crowding on audit-quality-reducing behavior was significantly positive ($\beta = 4.20$; $t = 4.38$), as was the effect on deliberate distortion ($\beta = 4.53$; $t = 4.40$). Crowding also significantly reduced the likelihood of engaging in professional skepticism ($\beta = -4.03$; $t = -4.83$) and organizational citizenship behavior ($\beta = -3.21$; $t = -4.59$). Hypotheses H2a and H2b, however, were not supported. This finding indicates that crowding and pay spreads enact different frames of mind. The incentives implicit in pay spreads do not seem to work in the same way as those of crowding. The importance of the organizational context of the professional service may be critical in explaining the observed effects (Kordana, 1995; Malos & Campion, 1995). We will elaborate on the underlying reason for this in the discussion.

The control variables in the German sample also produced some interesting insights. Respondents with a university degree tended to report *more* self-interested behavior and *less* strategic behavior. While the literature on the link between education level and ethical behavior provides an inconsistent picture, there is evidence that individuals with more education display greater ethical sensitivity due to higher moral development (Trevino, 1986). An auditor's organizational level and age have the opposite effect. That is, older auditors having achieved a senior level, report significantly less self-interested behavior and more professional skepticism. It is likely that these auditors have survived the up-or-out promotion system thus far and are now more cautious about reporting self-interested behavior (Miller & Chen, 2004; Chen, 2008). Counter-intuitively,

however, a stronger profit orientation in a German audit firm leads to significantly less reported self-interested and strategic behavior. It could be argued that audit firms with strong profit orientations are resourceful firms. Hence auditors in these firms do not need to engage extensively in self-interested behavior, as these firms are already profitable enough. More importantly perhaps, given that very profitable audit firms are by definition wealthy, they have deeper pockets (Dye, 1993). In terms of the risk of litigation penalties and reputation-damaging criticism, audit firms with more wealth have more to lose if misconduct is discovered (Lennox, 1999). Thus, the deep pockets of these audit firms dissuade auditors from engaging in strategic behavior.

Table 2 Descriptive statistics, Composite Reliability Coefficients, and Correlations

Variables	mean	SD	AVE	1	2	3	4	5	6	7	8	9	10	11
1 Profit orientation	4.68	1.19	0.68	(.86)										
2 Crowding	5.22	1.27	0.57	0.36**	(.80)									
3 Pay spread	5.72	1.23	0.80	0.54**	0.54**	(.92)								
4 Organization citizenship behaviors	5.38	0.77	0.63	0.07	0.02	0.12*	(.98)							
5 Professional skepticism	4.97	0.87	0.66	-0.03	-0.06	0.01	0.53**	(.85)						
6 Audit quality reducing behaviors	2.52	0.96	0.79	0.04	0.12**	0.06	-0.32**	-0.46**	(.91)					
7 Deliberate distortions	2.28	0.92	0.75	0.04	0.12*	0.04	-0.39**	-0.43**	0.80**	(.89)				
8 Size	.63	0.48		0.37**	0.56**	0.59**	0.05	0.06	0.02	0.01				
9 Gender	.28	0.45		-0.02	-0.06	-0.05	0.06	0.10*	-0.15*	-0.09	-0.00			
10 Academic achievement	.84	0.37		-0.04	0.05	0.02	-0.03	0.03	0.01	-0.02	0.05	-0.07		
11 Organizational level	.93	0.23		0.00	-0.02	-0.04	-0.05	0.01	-0.05	-0.03	-0.08	-0.11*	0.06	
12 Age	39.7	7.83		-0.12*	-0.13*	-0.22*	-0.01	0.04	-0.07	-0.06	-0.22**	-0.15**	0.03	0.12*

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

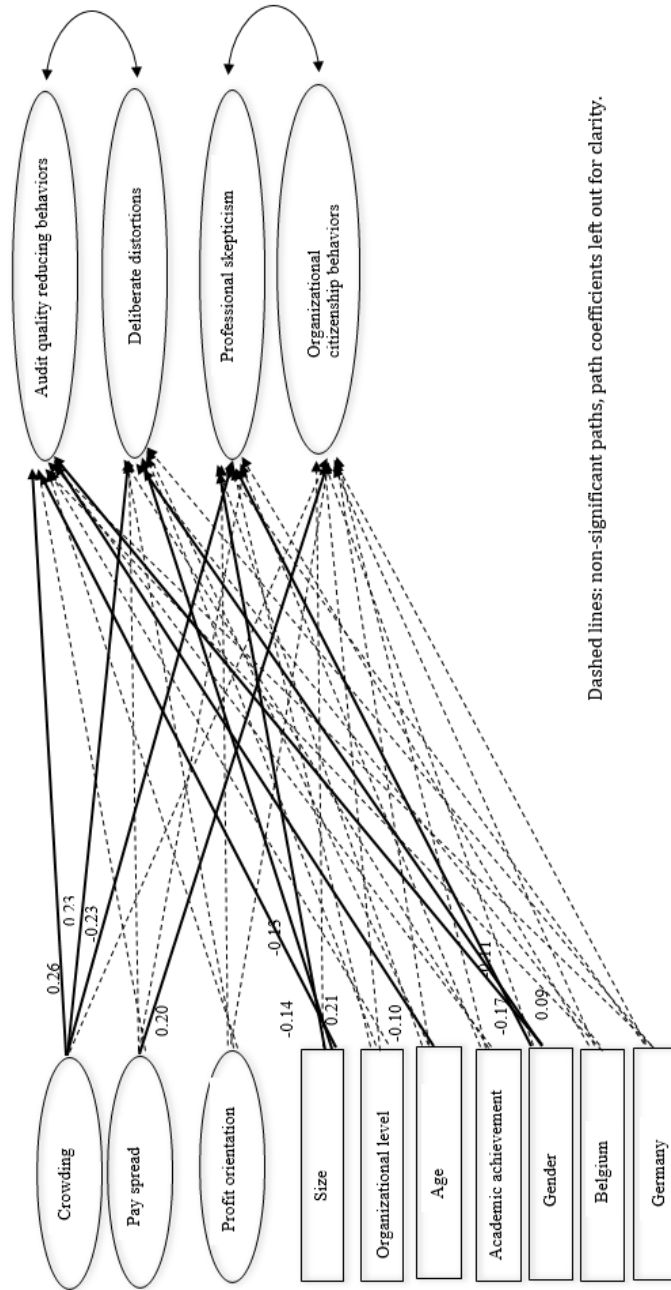
Table 3 Structural equation modeling results

Independent variables	Audit quality reducing behaviors		Deliberate distortions		Professional skepticism		Organization citizenship behaviors	
	Unstandardized	standardized	unstandardized	standardized	unstandardized	standardized	unstandardized	Standardized
<i>Pay spread</i>	-0.04	-0.05	-0.04	-0.06	0.07	0.11	0.12*	0.20*
<i>Crowding</i>	0.17*	0.26*	0.14*	0.23*	-0.12*	-0.23*	-0.04	-0.09
Control variables								
<i>Profit orientation</i>	0.01	0.02	0.02	0.03	-0.05	-0.07	-0.00	-0.00
<i>Size</i>	-0.29†	-0.14†	-0.24†	-0.13†	0.34*	0.21*	-0.03	-0.02
<i>Gender</i>	-0.37*	-0.17*	-0.21*	-0.11*	0.16*	0.09*	0.12	0.07
<i>Academic achievement</i>	-0.02	-0.01	-0.06	-0.02	0.01	0.00	-0.04	-0.02
<i>Organizational level</i>	-0.25	-0.07	-0.16	-0.05	0.02	0.01	-0.10	-0.04
<i>Age</i>	-0.01†	-0.10†	-0.01	-0.08	0.01	0.08	0.00	0.04
<i>Germany</i>	-0.15	-0.07	-0.04	-0.02	-0.06	-0.04	0.17	0.11
<i>Belgium</i>	-0.12	-0.04	0.08	0.03	0.02	0.01	0.01	0.01
Fit indices	χ^2 706.56	d.f. 244	RMSEA .07	CFI .96	GFI .89			

*Coefficient significant at 0.05 level.

†Coefficient significant at 0.10 level.

Figure 1 Structural Model



DISCUSSION

Our study finds that the organizational design parameters of tournament-type promotion systems create powerful incentives that influence behavior in audit firms that is critical to the successful functioning of the statutory audit of public firms. In line with the suggested limitations of tournament theory (Dye, 1984; Lazear, 1989), we find that crowding in audit firms produces self-interested and strategic behavior. In contrast to crowding, however, we establish that large pay spreads do not produce self-interested behavior, but actually promote cooperative behavior. As such, this study has made several contributions to the organizational literature.

Tournament Theory in the Organizational Context

To date, organizational research has, for the most part, used tournament theory to describe and explain compensation differentials in organizations (Connelly et al., 2013; Ridge et al., 2014) and has disproportionately focused on the effects of the tournament's prize on the solicitation of effort (Ericksson, 1999; Conyon et al., 2001; Main et al., 1993). This has resulted in the forwarding of a one-sided view of tournament theory in the organizational setting (Connelly et al., 2013). We make an important contribution by extending the scope of application of tournament theory in management research along two dimensions. First, in addition to the effects of the tournament's prize on contestants' conduct, we simultaneously investigate the unexplored behavioral effects of crowding (Connelly et al., 2013). By analyzing the behavioral effects of both pay spreads and crowding, we provide a comprehensive assessment of tournament-like promotion systems in the organizational context.

Second, whereas prior research on promotion systems has focused mainly on the capacity of pay spreads to stimulate optimal effort levels in the organization (Bloom, 1999, Connelly et al., 2013), we investigate the downside of a full tournament model. Specifically, we analyze two types of counterproductive behavior that might be seen as the negative

side effects of tournament-like promotion systems. Even though scholarly attention has started to be focused on counterproductive behavior that results from tournament-like promotion set-ups, such as sabotage (Dye, 1984; Henderson & Fredrickson, 2001; Hayward & Hambrick, 1997), we provide a more comprehensive treatment of a range of this behavior in the organizational context. We distinguish between self-interested and strategic behavior as means of getting ahead in the rankings. The subsequent teasing out of behavior along these two categories allows for a subtler typology of the negative byproducts of tournaments. Competitors may thus either shirk or engage in compromising behavior to bolster their own relative position or may strategically exert less cooperative and more sabotaging behavior in order to diminish the performance of their peers. In line with Connelly and colleagues (2013), we encourage further research to deepen our understanding of the full range of behaviors that tournaments may elicit.

In addition, we extend tournament theory to the audit context. This is an interesting context of application because of the nature of the audit and the organizational specificities of the audit firm. An audit is the product of a team effort and is characterized by a strong need for cooperation. Because the tournament-like promotion system stimulates competition instead of cooperation and because behavior is difficult to observe given the decentralized nature of the audit, the quality of the audit can be impaired as a result of this type of system. If the negative byproducts of tournaments diminish the quality of the audit, this may have important societal ramifications. Additionally, we extend tournament theory to the professional partnership, which is the dominant form of enterprise organization of audit firms. This setting allows us to investigate the behavioral incentives of tournament set-ups for all non-partnered professionals in the quest to become partner. This focus on a range of lower hierarchical levels differentiates our study from other tests of tournament theory in the organizational context that focus exclusively on promotion to CEO or top management teams (Ericksson, 1999; Conyon et al., 2001; Henderson & Fredrickson, 2001; Main et al., 1993; Ridge et al., 2014). By investigating

lower-level employees, we provide empirical evidence of Rosen's (1986) suggestion that less-experienced employees are more likely to take risks.

Contrary to what skeptics of tournament-like promotion set-ups have suggested, we find that large pay spreads do not promote self-interested and strategic behavior. We see three plausible explanations that would benefit from further scholarly scrutiny. First, the counter-hypothesized result could be due to the comprehensive nature of our model. Having included both design parameters of tournament theory in our empirical model allows us to more carefully specify the model and obtain a cleaner estimation of the effects. The second potential explanation for the results lies in the focus of our explanation. Instead of the customary dependent variables, effort or performance (Connelly et al., 2013), we focus on types of self-interested and strategic behavior. Since our explanatory variables are different, it makes sense that we find different results. Third, the counter-hypothesized results could be due to the specific context in which we apply the theory. The audit firm is a professional partnership and therefore does not completely meet the assumptions of the general tournament theory. In contrast to the general tournament set-up, professional partnerships only have a few large steps before partnership (Malos & Campion, 1995), they do not allow the contestants to stay at a particular level (Malos & Campion, 1995), and they include professionals not actually participating in the contest for partnership as they do not have the ambition to become partner (Kordana, 1995; Price, 2003). These incongruences complicate predicting the behavioral limitations of tournament-like promotion systems in professional partnerships, influence the behavioral outcomes of tournaments, and could explain why our results do not fully align with the limitations of tournament-like promotion set-ups. We urge researchers to delve deeper into our interpretations of the counter-hypothesized behavioral effects of pay spreads.

Professional Partnerships and Audit Firms

Reflecting on the context of study as a potential explanation of the counter-hypothesized results brings us to our contribution to the professional partnership literature. To date, Malos and Campion (1995, 2000) are the only scholars that have researched the unique dynamics of the up-or-out promotion system in professional partnerships. They conceptualize the hiring of junior professionals as an investment made by the existing partners in a portfolio of options. When an option matures, the partners can decide whether or not to exercise it and grant the professional access to partnership (Malos & Campion, 2000). Even though their approach is insightful and has empirical merit, it only considers the promotion decision from the existing partner's perspective and does not account for any behavioral effects on the professional contenders in the up-or-out tournament. Omitting the non-partners' perspective from their model risks glossing over the unique dynamics of career mobility and its unintended behavioral consequences. In this study, we critically assess the applicability of tournament theory in a classic professional partnership from a non-partner's perspective. This is perhaps more relevant because only the non-partners are exposed to the tournament's high-powered incentives and competitive pressures and therefore it is primarily their behavior that will be affected. As such, we refine our understanding of the implications of the tournament-like promotion system in professional partnerships.

Our study should also be of interest to audit partnerships, the audit profession, and regulators, more specifically, to help them evaluate the effects of high-powered incentives in the tournament-like promotion system on auditor behavior and audit quality. We show that the way in which audit firm partners are selected can have a large impact on the behavior of non-partnered auditors. We conclude that audit firms have to carefully balance the risks of undesirable behavior with their economic desire to secure human capital through these promotion systems. Auditors may sacrifice long-term performance for short-term results in order to secure their rank-order position (Connelly et al., 2013).

Given that the non-partners are the majority of the professionals working at the audit firm and that their work serves as the primary input for the partner's sign-off decisions, the quality of the audit could be jeopardized (Francis, 2011; Knechel et al., 2013), which may have serious societal ramifications.

Limitations

In addition to the limitations inherent to survey research, our survey data was collected across three different European countries. Differences in institutional contexts may therefore impact our results. Our sample validity tests and robustness checks indicate the possibility of minor differences between Germany and the Netherlands-Belgium duo. There is, therefore, considerable opportunity for future research to build on our model by including formal, country-level institutions, such as rules that govern employment conditions, as well as informal institutions, such as the degree of individualism or collectivism in the culture, to further explain how tournament-type incentives influence behavior in different institutional settings (Connelly et al., 2013).

APPENDIX B EMPLOYED SCALESAudit quality reducing behaviors (α : 0.89)

How often do these behaviors present themselves at your firm?

1. Reduction of the work below what is considered reasonable.
2. Superficial review of client documentation.
3. Acceptance of weak client explanations.
4. Failure to research a questionable item.
5. False sign-off.

Deliberate distortion (α : 0.89)

How often do these behaviors present themselves at your firm?

1. Consciously biasing sample selection towards less troublesome items.
2. Misestimating certain items on the financial statements.
3. Signing off on materially misstated items.
4. Insufficient execution of control procedures.
5. Insufficient attention to the existence and functioning of rules and procedures at the client.

Professional skepticism (α : 0.81)

1. My firm stimulates independent thinking.
2. In my firm, we take our time before making decisions.
3. In my firm, we tend to accept what other people say at face value. (reverse coded)
4. In my firm, we like to understand the reason for our clients' behavior.
5. We doublecheck every piece of information in our firm.
6. My colleagues strive to continue learning about their profession.
7. Outsiders think that my firm often questions things that we see or hear.

8. In my firm, we like to consider most available information before making a decision.

Organizational citizenship behaviors (α : 0.83)

In my team,

1. we go out of our way to help co-workers with work-related problems.
2. we voluntarily help new employees settle into the job.
3. we always go out of the way to make newer employees feel welcome in team.
4. we frequently adjust our agendas to help other colleagues.
5. we always meet or beat deadlines for completing work.
6. we never take unnecessary time off work.
7. we assist supervisors with their work.
8. we frequently communicate to co-workers suggestions on how the team can improve.
9. we perform our job duties with extra-special care.

Crowding (α : 0.80)

To what extent do you agree with the following statements?

In my firm,

1. the chances of becoming partner are slim.
2. there are sufficient chances for juniors and seniors to become partner.
3. only a small number of lower-level auditors will become partners.
4. competition for partnership is stark.
5. many lower-level auditors compete for very few partner positions.

Pay spreads (α : 0.90)

To what extent do you agree with the following statements?

1. The pay differences are increasingly large between ranks in the partnership.
2. Partners earn substantially more than any other rank in my firm.
3. The raises before partnership are not comparable to the raise for partnership.
4. In my firm, partners earn a lot more than the rest of the professionals.
5. In my firm, the pay gap between partners and the rest of the professionals is substantial.

Profit orientation (α : 0.83)

Could you please indicate your level of agreement with the following statements?

1. My firm is primarily concerned with generating profits.
2. The 'bottom line' orientation of my firm is the generation of profits.
3. We take corrective action when we do not meet our financial performance targets.
4. Our partners emphasize market performance.
5. Generating revenues is what matters most in my firm.
6. My income depends on the profit I realize for my firm.

CHAPTER 4. LOGICS UNDER PRESSURE: HOW STRATEGIC RESPONSES TO INSTITUTIONAL COMPLEXITY UNDERCUT INSTITUTIONAL MICROFOUNDATIONS⁷

Abstract

Organizations are confronted with institutional complexity whenever they face incompatible prescriptions from an existing incumbent logic and from emerging challenger logics. While institutional scholarship has started to generate insight on the organizational level strategic responses to institutional complexity, much less is known about the individual level behavioral implications of institutional complexity. In this study, we advance and test theoretical claims on how organizations internally manage institutional complexity and how their strategic responses to institutional complexity influence individual member behavior. More specifically, we propose that organizations manage institutional complexity by selectively adopting organizational practices embedded in incumbent and challenger logics. The unwanted consequence hereof is that the behavior triggered by the practices embedded in the challenger logics may lead to unintended institutional disruption. Member behaviors may unwittingly undercut the socio-cognitive microfoundations of incumbent logics by undermining the assumptions and beliefs of the incumbent logic, disassociating incumbent organizational practices from their moral foundations, and disconnecting sanctions and rewards from the prescriptions of the incumbent logic. We apply and test our theoretical claims through a field study in the audit industry, a context where disruption behaviors can have highly consequential societal repercussions. By critically reflecting on the dynamics of institutional complexity,

⁷ This chapter is co-authored with Prof.Dr. Pursey P.M.A.R. Heugens and Prof.Dr. J. (Hans) van Oosterhout.

organizational practices, and individual member behavior, our findings contribute to a better understanding of the microfoundations of institutional logics.

INTRODUCTION

In many fields that were once home solely to a monolithic incumbent logic, we currently observe institutional complexity in the form of emerging or established challenger logics durably co-existing with the incumbent logic. This is true in organizational fields ranging from commercial banking to college textbook publishing and from health care to drug courts (Almandoz, 2012; Dunn & Jones, 2010; Marquis & Lounsbury, 2007; McPherson & Sauder, 2013; Thornton, 2002; Thornton & Ocasio, 1999). Firms embedded in such fields therefore face multiple, sometimes competing or contradictory, institutional prescriptions and associated compliance pressures (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011). In many fields, the management of firm-environmental relations is currently therefore more complex than in earlier periods, when monolithic institutions exerted singular compliance pressures on embedded firms.

A number of recent studies have investigated how firms choose to respond strategically to such institutional complexity (Chandler, 2014; Greenwood et al., 2011; Kraatz & Block, 2008; Purdy & Gray, 2009). A strategic response being one that allows firms to maintain their strategic maneuverability and that ensures that institutional pressures do not interfere with its ability to achieve its objectives, even in the face of multiple competing prescriptions. Some studies have focused on structural changes, through which firms become structural hybrids seeking 'strategic isomorphism' (Aurini, 2006; Deephouse, 1996) with multiple norm sets. Other studies have focused on practice adoption, through which organizations develop activities and responses that are congruent with the manifest logics of a field (Lounsbury, 2007; Smets et al., 2012; Thornton, 2002, 2004). Through strategic isomorphism or practice adoption, organizations seek to gain institutional legitimacy in order to secure support or endorsement by external actors,

stabilize resource flows from resource-controlling parties, and thus heighten their chance of survival (Scott & Meyer, 1991; Thornton et al., 2012; Zucker 1987).

To this date, however, we know very little about how strategic responses to institutional complexity affect organizational behavior. A latent assumption of most studies on strategic responsiveness is that newly adopted organizational structures and practices can wholly or in part be decoupled from organizational task behaviors (but see Pache and Santos' (2010) discussion of selective coupling). Most studies have therefore focused on the strategic response in and of itself, that is, without further exploring the repercussions such responses have for task performance. A few studies have delved deeper by analyzing practice adoption in more detail and have contributed to a richer understanding of the organizational repercussions of institutional complexity (Kraatz & Block, 2008; Pache & Santos, 2010, 2013). Battilana and Dorado (2010) for instance assessed the performance implications of practice adoption strategies. At the micro-level, studies have advanced our understanding of the effect of multiple logics on organizational identity (Reay & Hinings, 2005, 2009) and on economic responses to market forces (such as downsizing) (Greenwood, Diaz, Li, & Lorente, 2010). Despite these theoretical and empirical efforts, we still know too little about the behavioral consequences of firms' strategic responses to institutional complexity (Greenwood, Hinings, & Whetten, 2014). This hampers our knowledge of the interpretive frames and other socio-cognitive platforms that form the basis of organizational action, better known as the microfoundations of institutions (Lawrence & Suddaby, 2006; Powell & Colyvas, 2008; Lawrence, Suddaby, & Leca, 2009). We will therefore seek to understand how an organizational level strategic response to institutional complexity influences individual level behavior in relation to task performance.

Our findings show that the emergence of new logics in an organizational field often gives rise to individual behaviors that can undermine or disrupt the incumbent logic (Clemens & Cook, 1999; Empson, Cleaver, & Allen, 2013; Jazarbowski, Matthiesen, & van

de Ven, 2009; Zietsma & Lawrence, 2010). Importantly these disruption behaviors are not performed by external challengers of the prevailing institutional order, but by institutionalized actors themselves, who may thus undercut the microfoundations of the very institutions in which they are embedded (Empson et al., 2013). These disruption behaviors are, often unwantedly and unwittingly, triggered by practice adoption strategies (Battilana & Dorado, 2010; Colyvas, 2007). Because new practice adoption does not always allow for decoupling, new practices can therefore wittingly or unwittingly change individual members' attitudes and behaviors. In other words, our study shows that incompatible logics do not always or necessarily lead to momentous clashes between ideologies or worldviews (Besharov & Smith, 2014; Marquis & Lounsbury, 2007), but rather that new logics gradually emerge, undercut, and disrupt existing ones (Jazarbowski et al., 2009; Maguire & Hardy, 2009; Oliver, 1992).

Our data comes from a survey amongst Dutch, Belgian, and German auditors. The societal role of auditors as independent information intermediaries that verify and certify financial information in order to ensure the efficient allocation of capital and investor protection heightens the relevance and importance of our context of study. Especially since auditor behavior has been attracting increasing scrutiny in relation to auditors' involvement in large corporate accounting scandals. The audit industry is therefore a unique 'natural laboratory' for a field study to advance our understanding of institutional complexity, strategic organizational responses, and (unintended) institutional disruption. Institutional complexity is a fact of life in the audit field because the incumbent professional logic, which emphasizes that work be conducted according to procedures that are deemed skilled and appropriate by society at large and by professional associations (Evetts, 2006; Malsch & Gendron, 2013; Suchman, 1995), durably co-exists with a challenger commercial logic, which emphasizes that work be conducted in a manner that maximizes both firm revenues and pecuniary returns to the firm's owners (Malsch & Gendron, 2013; Suddaby, Cooper, & Greenwood, 2007; Suddaby, Gendron, & Lam, 2009).

The strategic response of audit firms to this complexity has been to adopt several institutionalized practices from both logics. It is important to emphasize that the two logics and associated practices are not upheld and defended by different organizations representing alternative organizational forms (as in commercial banks versus community banks (Marquis & Lounsbury, 2007)), but are found in ‘sedimented’ form (Cooper, Hinings, Greenwood, & Brown, 1996) in almost every audit firm, albeit to varying degrees. Practices such as engagement quality control reviews and internal transparency, which serve to safeguard the quality of work procedures essential to the public role of auditors, are embedded in the incumbent professional logic. Practices like revenue-based profit sharing and variable compensation, which represent incentives to enhance profitability, are embedded in the challenger commercial logic. With this study, we will show that the practices embedded in the commercial logic lead to (unintended) institutional disruption (Lawrence & Suddaby, 2006) because they trigger two disruption behaviors that undermine the microfoundations of the incumbent professional logic. The two disruption behaviors are inappropriate partner behaviors, or “regulatory violations that have the potential to lead to an audit failure” (Carcello, Hermanson, & Huss, 1996, p.246) and underinvestment in reputation, or the failure to exert sufficient effort to maintain audit firm reputation (Greenwood & Empson, 2003; Hitt, Bierman, Uhlenbruck, & Shimizu, 2006; Wilson, 1983). These behaviors are diametrically opposed to professional norms and therefore threaten the quality and societal value of the audit. The practices embedded in the professional logic (engagement quality control reviews and internal transparency) lead to institutional maintenance (Dacin, Munir, & Tracey, 2010; Lawrence & Suddaby, 2006; Zilber, 2009), in the sense that they reduce these institutional disruption behaviors.

With this study we intend to make three contributions. First, as one of the few behavioral studies in the logics field, we reply to repeated calls for greater behavioral and microfoundations-oriented research in institutional theory (Dunn & Jones, 2010; Greenwood Hinings & Whetten, 2014; McPherson & Sauder, 2013). Thus far, research has

been overly concerned with explaining institutions and their overarching logics instead of analyzing the behavioral repercussions of these logics (Empson et al., 2013; Greenwood et al., 2014). In particular, we show that as the challenger institutional logic emerges and institutionalizes, embedded social actors engage in disruption behaviors that undermine the microfoundations of the incumbent logic by challenging the taken-for-granted nature of professional norms as the ulterior yardstick for evaluating professional conduct. Second, we also provide a new perspective on institutional conflict (Lounsbury, 2007; Marquis & Lounsbury, 2007; Pache & Santos, 2010; Thornton, 2002) by showing that conflict is often latent rather than manifest. We thus propose that the concept of institutional conflict should be broadened, such that it not just encompasses highly visible clashes of ideology in the public domain (e.g., see Marquis & Lounsbury, 2007), but also covert and perhaps even unintended processes undercutting the microfoundations of competing logics. A more refined understanding of institutional conflict would provide a foundation to enable a more systematic prediction of its behavioral implications. Additionally, this more refined, intra-organizational view on institutional conflict also shows that the outcome of such strife is not necessarily a shift in prevalence of one organizational form at the expense of another, but may encompass intra-organizational change in which new coalitions challenge the prominence of incumbent coalitions (Empson et al., 2013). A case in point is that many audit firms are currently led by representatives of their more recent consulting branches. Third, this study provides interesting insights for the literature on professional service firm (PSF) design and performance (Greenwood & Empson, 2003; Greenwood & Miller, 2010; Greenwood, Deephouse, & Li, 2007). We show that profit-seeking practices in PSFs often unwantedly and invisibly undercut the public and gatekeeping roles of PSFs. Thus far regulatory action has been the default response in many jurisdictions (Bayou, Reinstein, & Williams, 2011; Carnegie & Napier, 2010; Sikka, 2009), we expect organizational solutions in terms of compensation policies (Knechel, Niemi, & Zerni, 2013) or ongoing internal quality controls (Bedard, Deis, Curtis, & Jenkins, 2008) to be fruitful

remedies. The implication of these findings is therefore that the prevention of gatekeeper failure cannot straightforwardly be accomplished by means of regulatory remedies, but will require deeply organizational solutions aimed at restoring adherence to an institutional logic – professionalism – that is under threat of being supplanted by a challenger logic.

THEORETICAL BACKGROUND

Institutional Complexity

Institutional logics guide social action by providing “assumptions and values, usually implicit, about how to interpret organizational reality, and what constitutes appropriate behavior, and how to succeed” (Thornton, 2004, p.70). Abiding by the cultural prescriptions of institutional logics provides organizations with external legitimacy and heightens their chances of survival (Scott & Meyer, 1991; Thornton et al., 2012; Zucker 1987). Most organizational fields do not host a singular and dominant institutional logic, but are confronted with multiple institutional logics operating in concert (Greenwood et al., 2010). This gives rise to institutional complexity, or the situation where organizations face multiple and possibly incompatible prescriptions from a plurality of institutional logics (Greenwood et al., 2010; Kraatz & Block, 2008). Institutional theorists have come to recognize that institutional complexity has become the norm rather than the exception in nearly every organizational field (Greenwood et al., 2010). This entails that institutional complexity is not a temporary or fleeting phenomenon, but a typification of the ‘modern organizational condition’.

In fields once dominated by a single monolithic incumbent logic, institutional complexity either flows from within the field, due to changes in competition, client requirements, business opportunities or cost pressures for example, or originates from within the organizations, due to internal diversification strategies, the development of new practices, or increasing scale of operations for instance (Empson et al., 2013; Greenwood

& Hinings, 1996; Greenwood & Langley, 2014). The emergence of challenger institutional logics that are either new to the organizational field or previously present in a latent and subdued form results in institutional complexity. Most striking examples of institutional complexity can be found in the service industry. Hospitals and audit firms, for instance, face normative prescriptions and demands emanating from both a professional logic and a commercial logic (Dunn & Jones, 2010; Greenwood & Suddaby, 2006). Organizational action in publishing houses is constrained by craft and market logics (Thornton, 2002; Thornton & Ocasio, 1999), while mutual funds camp with community and market logics (Almandoz, 2012; Marquis & Lounsbury, 2007). In most organizational fields we now observe a permanent co-existence of multiple incompatible logics at par with each other (Besharov & Smith, 2014; Greenwood et al., 2011; Jazarbowski, Smets, Bednarek, Burke, & Spee, 2013; Kraatz & Block, 2008; Zilber, 2011).

This enduring co-existence of incumbent and challenger logics creates the potential for internal tensions as the underlying assumptions, values, beliefs, and cultural prescriptions of the incumbent logic usually conflict with those of the challenger logics. At the organizational level, these tensions materialize in design challenges. Each institutional logic prescribes a delimited set of practices organizations can adopt to ensure conformity with institutional demands and gain institutional legitimacy (Greenwood et al., 2010; Thornton, 2002, 2004; Thornton et al., 2012). Institutional complexity, however, makes a broader repertoire of organizational practices available to organizations (Besharov & Smith, 2012; Tracey, Philips, & Jarvis, 2011). This enhanced repertoire is at the same time an enabling and a constraining force on the organization. That is, even though organizations face a wider choice set, the underlying inconsistencies between incumbent and challenger logics makes the organizational design task more delicate and complicated. Organizations could, for instance, end up adopting antagonistic practices (Besharov & Smith, 2012; Tracey et al., 2011).

Several strategic responses to institutional complexity are available to organizations. Earlier studies focused on strategies seeking to eliminate pluralism (Jazarbkowski et al., 2013). Drawing on Oliver's (1991) work, prior studies have found that organizations may resist or avoid institutional pressures by denying the validity or legitimacy of certain logics (Greenwood & Suddaby, 2006; Kraatz & Block, 2008; Jazarbkowski et al., 2013; Marquis & Lounsbury, 2007; Townley, 1997). Organizations may, for instance, defy institutional pressures, as was observed in the case of how English and German banking lawyers shifted the governing logic of their newly founded international law firm by practice improvisation (Smets, Morris, & Greenwood, 2012). Alternatively, a less documented strategy is compromise (Kraatz & Block, 2008; Oliver, 1991). In this case, organizations create hybrid practices including the requirements of both incumbent and challenger logics in a slightly altered form. Microfinance organizations have, for instance, set interest rates below market expectations and above the demands of development stakeholders in an attempt to partially attend to dual institutional demands (Carrick-Cagna & Santos, 2009). Yet another strategy consists of decoupling normative structures from operational structures (Lounsbury, 2001; Meyer & Rowan, 1977; Westphal & Zajac, 2001) in an attempt to safeguard legitimacy (Boxenbaum & Jonsson, 2008). Organizations can do this by "symbolically endorsing practices prescribed by one logic while actually implementing practices promoted by another logic" (Pache & Santos, 2013, p.974). This has been observed in the General Accounting Office in the United States where the technical work process was decoupled from the externally directed symbolic displays of the audit reporting process (Basu, Dirsmith, & Gupta, 1999). These defensive strategic responses are centered on the incompatibilities of logics and see institutional complexity as transitory (Jazarbkowski et al., 2013). A limitation of these strategies is that organizations will not fully secure institutional support in the long run. Even though their aim is to avoid institutional collision, these strategic responses often give rise to highly visible ideological clashes in the public domain (Marquis & Lounsbury, 2007).

Rather than seeking the elimination of institutional complexity, more recent studies recognize that institutional complexity is an enduring fact of organizational life. These studies suggest that organizations should reconcile and balance the demands of incumbent and challenger logics (Battilana & Dorado, 2010; Dunn & Jones, 2010; Kraatz & Block, 2008; Purdy & Gray, 2009; Reay & Hinings, 2009). This alternative strategic response embraces institutional complexity by seeing it as an opportunity to draw from a broader repertoire of practices (Binder, 2007; Greenwood et al., 2010; Greenwood et al., 2011; Pache & Santos, 2013). The aim is to selectively combine practices in order to seek a cooperative solution between the logics (Kraatz & Block, 2008; Reay & Hinings, 2009; Pache & Santos, 2013). In order to reconcile contradictory ideologies, practices from the different logics should govern different activities (Battilana & Dorado, 2010; Friedland & Alford, 1991). Dunn and Jones (2010), for instance, observed that hospitals handled institutional complexity by adopting practices embedded in the professional logic to guide expertise and practices embedded in the commercial logic to guide practice⁸. This approach aims to strategically position the organization by satisfying the variety of institutional demands in an attempt to secure endorsement from the field (Greenwood et al., 2011; Pache & Santos, 2013; Tracey et al., 2011). Selectively coupling practices from different institutional logics is therefore a common way to manage institutional complexity as it reduces the risk of losing institutional legitimacy (which could be a byproduct of resistance strategies or of decoupling practices) and avoids the cost of having to create alternative practices (when organizations compromise) (Pache & Santos, 2013). Selective coupling however, has an inherent weakness, since practices associated with the challenger logic might trigger behavior that is not desired by the defenders (Marquis & Lounsbury, 2007) of the incumbent logic.

⁸ Selectively coupling practices can, therefore, create variation in practices across organizations in the same field (Lounsbury, 2007, 2008).

Organizational Member Behavior

The fact that multiple logics persistently coexist within a field without there being manifest conflict does not mean that the co-existence is always peaceful (Battilana & Dorado, 2010; Pache & Santos, 2013; Tracey, Phillips, & Jarvis, 2011). Specifically, the emergence and institutionalization of a challenger logic has two field-wide consequences that together threaten the microfoundations of the incumbent logic. The first consequence is on organizational design. The adoption of practices embedded in a challenger logic entails that fewer resources will be available to devote to practices embedded in the incumbent logic (Malsch & Gendron, 2013). In the accounting field for instance, the rise of a commercial logic has been paired with the adoption of practices spurring on financial gain, such as the coupling of auditor compensation to short-term profitability or low-balling practices to win audit contracts (Malsch & Gendron, 2013; Sikka & Willmott, 1995). The consequence hereof was that audit firms had fewer resources left to invest in practices promoting professional oversight. In addition, the adoption of practices embedded in challenger logics also entails that some practices embedded in the incumbent logic have to be removed in order to give way to the new practices. It is important to stress that there is not a complete replacement of practices or an overhaul in organization design, but a careful combination of practices. Some incumbent practices are kept intact in order to ensure institutional maintenance (Dacin et al., 2010; Lawrence & Suddaby, 2006; Pache & Santos, 2013; Zilber, 2009). The emergence and institutionalization of a challenger logic therefore results in a so-called 'sedimented' organizational design (Cooper et al., 1996; Empson et al., 2013; Hinings & Greenwood, 1988; Jazarkowski et al., 2009). Organizational sedimentation refers to the persistence of incumbent values and practices along challenger values and practices in an organization, even when there may be incoherences (Cooper et al., 1996).

Organizational members need to make sense of this sedimented organizational design. Therefore, the second consequence of selectively combining practices in institutionally complex environments is its distorting effect on actor behavior, which could

lead to activities that engender or encompass institutional disruption (Lawrence & Suddaby, 2006). Practices are vehicles used to convey desired values in organizations (Battilana & Dorado, 2010; Lounsbury, 2007), shape individual interests, and frame the opportunities and constraints for actor behavior. Practices are visible to all organizational members and are the tangible communication devices that signal and incite certain types of behavior (Bowen & Ostroff, 2004). Organizational members need to interpret and translate these signals into behavior (Cooper et al., 1996; Covalleski, Dirsmith, Heian, & Samuels, 1998; Grey, 2003; Kornberger, Carter, & Ross-Smith, 2010). The selective combination of practices, however, will confront organizational members with inconsistent signals that they need to make sense of, interpret, and translate into behaviors. Some members will reinforce the incumbent logic by reproducing its taken-for-granted ideals, while others will question these previously taken-for-granted behaviors (Colyvas, 2007; Powell & Colyvas, 2008). Even though the logics are enacted in different areas of the organization, interpretations of organizational signals can be transposed from one area to another (Powell & Colyvas, 2008).

The unwanted consequence hereof is that the behavior diffused by the challenger logics may actually undercut or disrupt the microfoundations of the incumbent logic (Lawrence & Suddaby, 2006). The availability of alternative behavioral signals within the organization will lead members to question the legitimacy of their previously taken-for-granted behaviors. Members will reassess the appropriateness of incumbent institutional prescriptions (Creed, Hudson, Okhuysen, & Smith-Crowe, 2014; Greenwood, Suddaby, & Hinings, 2002; Maguire & Hardy, 2009; Thornton, 2002) and might fail to reproduce the previously taken-for-granted incumbent organizational behaviors. The repeated production of challenger-logic congruent behaviors will replace the prevailing behavioral norms within the organization. Through the daily reproduction of these challenger congruent behaviors, the challenger logic will evolve from 'unfamiliar and unusual to plausible and appropriate, and finally to a core component of [the organization]' (Powell &

Colyvas, 2008, p.288). As challenger logic-congruent behaviors become the norm, the core assumptions and beliefs of the incumbent logic will be undermined (Empson et al., 2013; Jazarbowski et al., 2009; Lawrence & Suddaby, 2006; Maguire & Hardy, 2002; Wicks, 2001). Organizational member commitment to the incumbent logic will therefore decrease (Voronov & Vince, 2012) and members will justify (instead of simply and unreflectively repeating and habituating) challenger logic-congruent behaviors (Colyvas, 2007; Powell & Colyvas, 2008; Seo & Creed, 2002). In addition, members will challenge the previously taken-for-granted nature of incumbent norms as the ulterior benchmark for assigning rewards and sanctions (Jazarbowski et al., 2009; Lawrence & Suddaby, 2006). Their behavior will induce a disconnect of the rewards and sanctions from the incumbent logic's pre- and proscriptions. The spread of challenger logic-congruent behavior will further gradually diminish the institutional pressures of the incumbent logic. While practices embedded in the incumbent logic will persist, their existence will become more symbolic, in the sense of maintaining institutional legitimacy, rather than substantive (Ahmadjian & Robinson, 2001; Lawrence & Suddaby, 2006). Practices embedded in the incumbent logic will therefore become disassociated from their moral foundations (Ahmadjian & Robinson, 2001; Jazarbowski et al., 2009; Lawrence & Suddaby, 2006; Maguire & Hardy, 2009). These challenger logic-congruent behaviors "attack and undermine the mechanisms that lead members to comply with institutions" (Empson et al., 2013, p.813) and can therefore be seen as institutional disruption behaviors, or behaviors that contribute to institutional disruption. (Lawrence & Suddaby, 2006). The selective combination of practices could therefore lead to the disruption of the incumbent logic (Lawrence & Suddaby, 2006; Maguire & Hardy, 2009). Ultimately, this could jeopardize the organization's customer and public support as well as its chance of survival (Elsbach & Sutton, 1992; Lawrence & Suddaby, 2006; Scott & Meyer, 1991; Zucker, 1987).

The above illustrates that managing institutional complexity comes with a potentially serious threat. The durable sedimentation of organizational practices (Binder,

2007; Greenwood et al., 2010; Greenwood et al., 2011; Pache & Santos, 2013) gives rise to inconsistent behavioral signals (Colyvas, 2007; Powell & Colyvas, 2008). While the organizational practices embedded in the incumbent logic elicit incumbent logic-congruent behaviors, organizational practices embedded in the challenger logic trigger challenger logic-congruent behaviors. Cumulatively, these challenger logic-congruent behaviors undermine the assumptions and beliefs of incumbent practices, disconnect the rewards and sanctions from incumbent practices, and disassociate incumbent practices from their moral foundations (Empson et al., 2013; Jazarbkoski et al., 2009; Lawrence & Suddaby, 2006; Maguire & Hardy, 2009). These challenger logic-congruent behaviors therefore disrupt the microfoundations of the incumbent logic by “dismantling the normative, cognitive, and regulatory mechanisms supporting the [incumbent logic]” (Zietsma & Lawrence, 2010, p.195). Therefore, we propose:

Proposition 1: Practices embedded in the incumbent institutional logic reinforce behaviors congruent with that logic.

Proposition 2: Practices embedded in the challenger logics lead to the disruption of the incumbent institutional logic by engendering disruption behaviors that undercut its microfoundations.

CONTEXT OF APPLICATION AND HYPOTHESES

We seek to understand the disruptive behavioral implications of institutional complexity in the audit field. The audit field provides an ideal context of application because of the persistence of institutional complexity. Audit firms are subject to two contradictory institutional logics: a professional and a commercial logic (Muzio, Brock, & Suddaby, 2013; Suddaby et al., 2009). Their enduring co-existence enables us to highlight the latent organizational struggles and disruptive behavioral implications of institutional complexity.

The audit field is also a highly appropriate context of application because of its societal importance. Recent developments in the audit industry have highlighted several cases of auditor failure and systemic crises of confidence as auditors failed to meet the expectations of the users of financial statements. The scale and recurrence of financial scandals involving auditors have raised the highly consequential risks of auditor (mis)behavior (Wyatt, 2004; Zeff, 2003). Understanding what drives auditor (mis)behavior is therefore on the agendas of policy-makers and academics alike. We take steps in this direction by analyzing the effects of institutional complexity on auditor disruption behaviors, which we hypothesize to be influenced by the adoption of organizational practices that are more or less congruent with the incumbent professional logic and/or the challenger commercial logic.

Institutional Complexity in the Audit Field

The traditional, and therefore incumbent, logic in the audit field is the professional logic. The professional logic assumes that auditors are social trustees (Brint, 1996; Robson, Willmott, Cooper, & Puxty, 1994) who have clear fiduciary duties to the public (Gendron, 2002; Gendron & Malsch, 2013). It is premised on the ideology of public service, the mythologies of independence and autonomy (Suddaby, Gendron, & Lam, 2009), and a disinterest in commercial matters (Freidson, 2001). The professional logic consists of clear professional norms and values (Malsch & Gendron, 2013; Suddaby et al., 2009). Professional bodies promulgate rules and regulations and secure institutional maintenance through specific socialization procedures and continuous professional development programs (Covaleski et al., 1998; Suddaby & Greenwood, 2005; Suddaby, Cooper, & Greenwood 2007, Suddaby et al., 2009). The professional logic has external legitimacy not only because it stems from the demands of external stakeholders, but also because it is maintained by professional bodies external to the audit firms.

Nowadays, the incumbent professional logic durably co-exists with a commercial logic (Evetts, 2011; Hanlon, 2004; Leicht & Fennel, 2001). A reduced workload due to technology developments in auditing combined with a shrinking client pool with increasing demands for consulting services urged audit firms to rethink their organization and their services (Suddaby et al., 2007, Suddaby et al., 2009). Audit firms therefore expanded their range of services from auditing to strategy, IT, and tax (Hanlon, 2004; Suddaby et al., 2007, Suddaby et al., 2009; Zeff, 2003) and hired non-accountants (Wyatt, 2004; Zeff, 2003). The influx of non-accountants altered the culture in audit firms, as these new hires had different and sometimes contradicting social and professional dispositions (Greenwood & Empson, 2003). They imported the normality of financial short-termism and the managerial rhetoric from other commercial contexts into the audit firm (Wyatt, 2004; Hanlon, 2004; Suddaby, Cooper, & Greenwood, 2007). This contributed to the consolidation of the commercial logic in audit firms. The commercial logic is premised on the quest for short-term profitability (Malsch & Gendron, 2013), the generation of revenues (Suddaby et al., 2009), and the importance of value-added (Covaleski et al., 2003; Pinnington & Morris, 2003). The commercial logic shifts the nature of audit services from a public good towards a commercial service sold to the client and is seen as a potentially disruptive influence for the professional logic. Even though this logic has its origin inside the audit firm, the commercial logic has gained external institutional legitimacy (Malsch & Gendron, 2013). Institutes like the American Institute of Certified Public Accountants (the largest member institution representing the accounting profession in the United States) have endorsed the commercialistic agenda of audit firms (Fogarty, Radcliffe, & Campbell, 2006). Professional bodies further endorse and play an active role in the boundary spanning activities of audit firms (Gendron & Barrett, 2004; Greenwood, Suddaby, & Hinings, 2002). In addition, society at large accepts that the owners of the audit firm ultimately appropriate the economic surplus generated by the provision of their services.

Both the professional (incumbent) and the commercial (challenger) logics are of

significant importance in the audit field. Audit firms depend on the professional logic for their social acceptance and *raison d'être* and depend on the commercial logic for their economic survival. The prescriptions of both logics, however, set contradictory demands. Within the customary fixed fee audit contract, for example, the professional logic prescribes independence, competence, and professional accuracy while the commercial logic vies for cost reductions and time savings. Audit firms are therefore caught in a web of institutional complexity. This gives rise to internal tensions and associated organizational challenges. How audit firms handle institutional complexity is crucial for their social legitimacy, their access to critical resources, their perceived authenticity, and ultimately their survival (Greenwood et al., 2011; Scott & Meyer, 1991; Zucker, 1987).

Strategic Organizational Responses to Institutional Complexity

The responsibility for handling these institutional pressures lies in the hands of the key decision-makers of audit firms. Because audit firms are organized as professional partnerships, the key decision-makers are the owners or partners (Maister, 2007). Partners are the most senior members of the audit firm as they survived the tough promotion procedures to qualify as owner and participate in the firm's profit-sharing scheme (Morris & Pinington, 1998). Their ownership entails that their reputational capital as well as economic wealth is tied up in the firm (Greenwood & Empson, 2003). Therefore, partners' decisions are believed to be in the best interests of the firm. In addition, partners are more receptive to institutional pressures since they have greater ties to the profession and connections to the field given their seniority (Greenwood et al., 2011; Lounsbury, 2001; Suddaby et al., 2009). They are therefore believed to best make sense of, interpret, and enact the institutional logics within their firm.

The importance and persistence of both logics has complicated the organizational design task for partners (Emirbayer & Mische, 1998, p.973). The most common strategic response is to balance and reconcile the demands of both logics. Partners therefore embed

values in the firm that conform to the dual institutional standards in order to gain legitimacy from both institutional referents (Fogarty, 1996). In spite of professional (incumbent) practices based on collegial or peer controls contradicting with the more business-like organizational control practices prescribed by the commercial logic (Anderson-Gough, Grey, & Robson, 2001; Cooper et al., 1996; Covalleski et al., 1998; Morris & Pinnington, 1998), partners have carefully combined practices in order to attend to both institutional demands.

Organizational Practices Associated with the Professional Logic

Partners have chosen to keep intact some of the traditional practices embedded in the professional logic to guide audit practice as the values and beliefs of the professional logic best correspond with partners' desire to deliver high levels of audit quality. In order to deliver high levels of audit quality, partners must make sure that professional rules and standards are strictly followed. Formally detecting violations of professional rules and standards, however, is complex because these behaviors are not only difficult for outsiders to observe, but also because of the high costs associated with formally monitoring these non-routine behaviors (Greenwood & Empson, 2003). The practices embedded in the professional logic provide the tools to enforce professional conduct because they rely on collegial oversight practices (Cooper et al., 1996). Collegial oversight practices are believed to control the risk that auditors violate professional values by detecting and deterring unprofessional behavior (Bedard, Deis, Curtis, & Jenkins, 2008). Practices embedded in the professional logic therefore ensure institutional maintenance (Dacin et al., 2010; Zilber, 2009).

One such practice is the *engagement quality control review* (EQCR) or concurring partner review. The EQCR is a quality control mechanism used to monitor audit quality by providing an objective review of an audit engagement by a partner not involved with the client (Epps & Messier, 2006; Schneider & Messier, 2007). The EQCR is deeply embedded

in the professional logic because the International Federation of Accountants (IFAC) prescribes this practice. Indeed, the International Standards on Quality Control (ISQC1, para.20) provide guidance on EQCR (IFAC, 2007), which 130 member countries have adopted and enforced in their national auditing standards. Research has established that the EQCR has the potential to increase audit quality if reviewers possess certain qualities (Bedard et al., 2008; Gibbins & Trotman, 2002). Reviewers should complete a thorough and all-encompassing review (Agoglia, Kida, & Hanno, 2003; Bamber & Ramsey, 2000), should proceed to face-to-face reviews (Agoglia, Hatfield, & Brazel, 2009; Brazel, Agoglia, & Hatfield, 2004), and should have sound experience in the client's industry (Owhoso, Messier, & Lynch, 2002). Available studies have established that the EQCR encourages professional behavior because it enhances risk assessments by engagement partners (Ayers & Kaplan, 2003; Tucker & Matsumura, 1997), leads to higher levels of testing (Matsumura & Tucker, 1995), and reduces the focus on confirmatory evidence (Tan, 1995). The EQCR is therefore an effective mechanism to ensure professional conduct and maintain compliance with the professional logic.

A second practice embedded in the professional logic is *internal transparency*. Internal transparency refers 'the degree to which [partner] conduct and its consequences are perceptible to [other partners]' (Kaptein, 2008, p.926). Internal transparency therefore has the potential to increase the visibility of partner behavior and hone collegial monitoring. As partners know the ins-and-outs of the job, are familiar with the potential ethical dilemmas, and work in relatively close contact with other partners, they are best able to influence colleagues' behavior (Greenwood & Empson, 2003). Internal transparency is therefore an effective mechanism to enable partners to detect and expose the unprofessional conduct of their colleagues (Kaptein, 2008, 2011). In addition, internal transparency can be an effective deterrent to unprofessional behaviors because it not only increases the likelihood of getting caught, but it also makes the consequences of unprofessional conduct visible (Kaptein, 2011; McCabe, Trevino, & Butterfield, 1996).

Internal transparency therefore ensures the maintenance of professional conduct in the audit firm. An internal transparency practice thus contributes to a sound control environment.

Organizational Practices Associated with the Commercial Logic

To secure endorsement from actors promoting and defending the commercial logic, partners have adopted a more business-like incentive and reward system (Dunn & Jones, 2010; Lounsbury, 2008; Malsch & Gendron, 2013). Partners reconsidered their traditional equal profit sharing scheme (generally seniority-based) for a profit sharing scheme based on performance (Burrows & Black, 1998; Greenwood, Hinings, & Brown, 1990; Huddart & Liang, 2005). This new, yet currently well-established, approach to profit sharing allows audit firms to optimize profit maximization through the implementation of two practices.

While traditionally partner compensation was based solely on the equal sharing of the overall profits generated by the firm, the performance-based profit sharing scheme introduced a variable component in partner compensation (Knechel, Niemi, & Zerni, 2013). *Variable compensation* is a non-fixed pecuniary reward based on performance. Partner compensation now consists of two elements: (1) a base component depending on the overall profits generated by the firm and (2) a variable component depending on individual performance evaluations (Burrows & Black, 1998; Empson et al., 2013; Greenwood et al., 1990). Even though the weight attributed to this variable component varies among audit firms, the variable component of partner compensation is a significant part of total compensation in any given firm. It is not only the adoption of this new component, but also its relative weight that affects audit firm partners' incentives. Meeting the standards for performance evaluations is now essential to determine the size of their compensation.

Adding this variable component also added a new perspective to partner compensation: profits are awarded based on individual performance (Knechel et al., 2013). *Profit-based revenue generation* is the allocation of profit shares based on revenue

generating success (Greenwood et al., 1990). In accordance with commercial beliefs, the criteria for partner performance evaluations have become focused on profit (Carcello et al., 2000; Knechel et al., 2013). The ability to generate revenues is now a key determinant of profit share allocation in audit firms (Greenwood et al., 1990; Knechel et al., 2013). Partners should therefore focus on their personal contributions to firm profits, their amount of billable hours, and their ability to acquire new clients and retain existing clients. The pursuit of material gain has therefore become a key incentive in audit firms (Evetts, 2011; Grey, 2003; Kornberger, Justesen, & Mouritsen, 2011; Malsch & Gendron, 2013; Suddaby et al., 2009). This stands in stark contrast to the norms and values of the professional logic.

These commercial practices have not only been adopted by audit firms to increase their revenues and profitability, but also because other actors in the field endorse and expect these practices. In the United States, for instance, the SEC details rules about auditor compensation (2003). While prohibiting partner compensation based on partners' cross-selling abilities, the SEC endorses remuneration based on the selling of services within their discipline (for an audit partner, audit services; for a tax partner, tax services). The underlying assumption hereof is that partners deliver superior services when they are able to gain optimal access and insight into their area of expertise at the client. In a similar vein, the European Union recently passed directive 2014/56/EU (2014) which contains rules governing the internal organization of statutory auditors and audit firms (Article 24a). A special provision concerns profit-sharing policies of audit firms (paragraph J). It indirectly acknowledges that commercial skills form a large part of performance evaluations by regulating the need to also have 'sufficient performance incentives to secure audit quality' (L158/209). Like in the United States, audit firm partners are not allowed to be evaluated or directly remunerated for the cross-selling of services. The Dutch professional association of Accountants (Nederlandse Beroepsgroep van Accountants) takes this pan-European regulation further by requiring audit firms to disclose the compensation policy

for partners, including the portion of variable and fixed compensation and criteria for promotion (The Code for Audit Firms, 2012). Therefore, the practices embedded in the challenger commercial logic are also institutionalized. Clearly, the rewards and sanctions in audit firms have become disconnected from the incumbent logic's behavioral prescriptions.

Behavioral Impact of Institutional Complexity

Given that audit firm partners are intendedly rational economic players, they have an economic incentive to increase their personal wealth (Liu & Simunic, 2005). Prior experimental and archival research has established that partners react to pecuniary incentives (Carcello et al., 2000; Trompeter, 1994). A more commercial incentive and reward system will therefore affect partner behavior (Liu & Simunic, 2005). Partners will be sensitive to the commercial criteria embedded in their reward structure because they receive direct and personal rewards for good performance. Partners are especially receptive to these rewards because they include not only of a financial gain (greater allocation of profit shares, and thus greater compensation) but also of a status increase. A status increase to a 'rainmaker' or star generating most of the firm's business (Teece, 2003) is an important incentive for a partner to perform well because partners not only derive their identity and ego from such a status (Groysberg & Lee, 2008; Polzer, Swann, and Milton, 2003), but are also able to enhance their value outside of the firm (Groysberg & Lee, 2009). Partners will therefore strive to maximize their revenue generation.

Given that the single revenue source for partners is their clientele, partners have two possibilities to maximize their revenue generation. First, partners can seek to retain existing clients to maintain their revenue stream as losing a client will negatively affect the partner's profitability (Trompeter, 1994). The second option to generate revenue is the acquisition of new clients. Acquiring new clients may even be preferred given that new acquisitions will generate additional (as opposed to existing) revenues. While too much

focus on client retention makes partners vulnerable to client demands for aggressive or even fraudulent reporting (Carcello et al., 2000; Trompeter, 1994), too much focus on acquiring new clients makes partners vulnerable to cutting corners to reduce their existing workload. The increased vulnerability to client demands and the pressure to free up time to take on new clients may encourage partners to engage in *inappropriate partner behaviors*. Inappropriate partner behaviors are 'regulatory violations that have the potential to lead to an audit failure' (Carcello et al., 1996, p.246). Gathering insufficient audit evidence or performing inadequate workpaper review are examples of inappropriate partner behaviors. Clearly, these behaviors transgress professional norms and directly lower the quality and reliability of the audit. Inappropriate partner behaviors are diametrically opposed to the public function of the auditor as an independent gatekeeper and therefore result in a direct breach of the social contract auditors have with the public (Carcello et al., 1996). A recent example highlighting the risks associated with inappropriate partner behaviors is the Dutch audit market. The national authority of the financial markets has pointed out that a source for the inadequacy of 45% of controlled Dutch public interest audits is inappropriate partner behaviors. This provides evidence that inappropriate partner behaviors are a real threat to the audit. This observation has shattered the public confidence in the auditor.

In addition, as partners compete with each other for profit shares, they will be less inclined to cooperate with each other or engage in activities that put the interests of the firm ahead of their personal interests (Carcello, Hermanson, & Huss, 2000). The most critical interest of any audit firm is establishing and maintaining a good reputation. Research has established that reputation enables the audit firm to charge higher fees, attract new clients, and hire the brightest professionals (Craswell, Francis, & Taylor, 1995; Greenwood & Empson, 2003; Greenwood, Li, Prakash, & Deephouse, 2005). Audit firm reputation is the product of collective effort and cumulatively benefits the firm in the long-run. Reputation is, however, indivisible in the sense that reputation efforts cannot be

directly or explicitly attributed to a single partner. Therefore, partners can only indirectly benefit from investing in the reputation of the firm. The absence of direct rewards (in financial terms or prestige) associated with reputation maintenance efforts gives rise to *underinvestment in reputation*. Underinvestment in reputation is defined as the failure to exert sufficient effort to maintain audit firm reputation (Greenwood & Empson, 2003; Hitt, Bierman, Uhlenbruck, & Shimizu, 2006; Wilson, 1983). It can take on several forms. In pursuing material gain, partners may treat clients in a way that harms the reputation of the firm (by for instance acquiescing to their demands for aggressive reporting). Partners could also forgo to actively contribute to reputation building and free-ride on reputation efforts of colleagues. The highly consequential societal risks associated to underinvestment in reputation are apparent in the involvement of Arthur Andersen in the Enron accounting scandal. As a handful of Arthur Andersen's partners acquiesced to the demands for fraudulent financial reporting, Arthur Andersen lost its reputation and consequently failed. The consequences of this underinvestment in reputation were not only borne by Arthur Andersen, but also spread to the accounting profession as a whole. The profession suffered a large loss in the confidence of audit work, and has been working to restore public confidence ever since.

Disruption

Economic factors have caused audit firms to keep intact some of its traditional incumbent professional practices and to abandon a deeply institutionalized practice (equal profit sharing) in order to replace it with a novel challenger practice (profit sharing based on revenue generation). Despite the adoption of antagonistic practices in separate (but related) areas regulating partner activities, the behaviors triggered by the challenger commercial logic diffused in the organization. The connection of the partner reward system to the commercial logic (and implicitly its disconnection from the professional logic) not only questions the legitimacy of previously taken-for-granted professional logic-

congruent behaviors, but will also create awareness of the opportunities and (personal) benefits associated with commercial logic-congruent behavior. It will therefore incite partners to transpose, prioritize, and justify behavior from their incentive and reward system to their collegial control practices. The repetitive engagement in inappropriate partner behaviors and underinvestment in reputation can undercut the microfoundations of the professional logic (Empson et al., 2013; Lawrence & Suddaby, 2006; Jazarkowski et al., 2009; Maguire & Hardy, 2009). Inappropriate partner behaviors and underinvestment in reputation can therefore be qualified as institutional disruption behaviors. Hence, the commercial logic is a destabilizing force in the audit field (Gendron & Spira, 2009).

The above illustrates that partners have reconciled and balanced the demands of two contradictory logics by selectively combining practices embedded in the professional and commercial logics. While the traditional professional practices spur on the professional behavior necessary for institutional maintenance, practices embedded in the commercial logic trigger two behaviors that can disrupt the incumbent professional logic for three reasons (Empson et al., 2013; Lawrence & Suddaby, 2006). First, because partners are personally rewarded based on their commercial success, partners gradually realize that their interests are not met by the prescriptions of the incumbent professional logic. Partners thus re-evaluate their previously taken-for-granted professional congruent behavior and start to engage in inappropriate behaviors and underinvestment in reputation. Even though these behaviors violate professional norms, their reproduction makes them become the norm (Wicks, 2001). This will undermine the underlying assumptions and beliefs of the professional logic (Empson et al., 2013; Jazarkowski et al., 2009; Lawrence & Suddaby, 2006; Zietsma & Lawrence, 2010). Second, as challenger logic-congruent behaviors become accepted and the norm in the audit firm, the taken-for-granted nature of professional norms as the ulterior yardstick for evaluating professional conduct will be challenged. Partner behavior will therefore trigger a wedge between the professional logic and partners' sanctions and rewards (Jazarkowski et al., 2009;

Lawrence & Suddaby, 2006). This brings us to the third reason why challenger logic-congruent behaviors are disrupting forces. The professional practices in place will start to lose grip because they will be perceived as mere vehicles to avoid regulatory sanctions (Wicks, 2001) and to achieve endorsement from institutional referents. The professional practices will therefore be disassociated from their moral foundations (Jazarbkowski et al., 2009; Lawrence & Suddaby, 2006). Inappropriate partner behaviors and underinvestment in reputation therefore “attack and undermine the mechanisms that lead members to comply with [the professional logic]” (Empson et al., 2013, p.813) by undermining the assumptions and beliefs of the professional logic, by disconnecting rewards and sanctions from professional practices, and by disassociating practices embedded in the professional logic from the professional logic (Emspon et al., 2013; Lawrence & Suddaby, 2006; Jazarbkowski et al., 2009; Maguire & Hardy, 2009). They are therefore qualified as institutional disruption behaviors. Hence, we hypothesize:

H1: Practices embedded in the professional logic reinforce professional logic-congruent behaviors.

H2: Practices embedded in the commercial logic lead to professional logic-disruption behaviors.

METHODS

Data Collection and Sampling

We relied on survey techniques to collect our data, not only because the data needed to test our hypotheses is not publicly available, but also because we are interested in perceptions regarding institutional logics, organizational practices, and behavior. A web-based survey was sent to all registered certified public accountants (CPAs) of the German, Dutch, and Belgian professional associations. The sampling frame consisted of the CPAs' e-mail

addresses available at the public registries of the national professional associations (Germany: *Wirtschaftsprueferkammer*; The Netherlands: *Nederlandse Beroepsorganisatie van Accountants*; Belgium: *Instituut voor Bedrijfsrevisoren*). In total we collected 8246 e-mail addresses for Germany, 9070 for The Netherlands, and 1021 for Belgium. These e-mail addresses were from CPAs working for audit firms and CPAs employed by other institutions. In order to test our hypotheses, we needed partners' perceptions since they are the key organizational decision-makers and because their behavior has a potentially large societal impact. In order to sample the partners, the first page of the survey filtered out the CPAs not working for an audit firm. The next page then screened the hierarchical level of the respondents (partner or salaried auditor). 819 CPAs completely filled out the survey, 414 of which were audit firm partners (96 Belgian, 111 Dutch, and 207 German partners). The others were salaried professionals and were presented with a different set of questions intended for another study. It was impossible to calculate the response rate due to the lack of ex-ante information about the employing organization and hierarchical level of CPAs. The respondents were partners of the 4 Big Four firms in the three countries and of 235 other public audit firms. As we are interested in firm-level variables, we aggregated the individual responses to the firm level by averaging them (in case of multiple respondents per firm). Our final sample therefore consisted of 247 audit firms.

The three countries of interest to us are similar on four counts. First, 85% of the publicly listed firms are audited by the Big Four audit firms (PwC, KPMG, Deloitte, EY) (Barnier, 2010). Second, the mid-tier audit market serving non-listed firms has a strong national presence. Third, a central national professional association responsible for monitoring the profession is available in the three countries. Fourth, all audit firms in our sample are subject to code law and similar levels of regulatory enforcement making these countries also comparable at an institutional level (Leuz et al., 2003). The audit field in Germany, the Netherlands, and Belgium is therefore comparable and aggregating the data from these sources should not be an issue.

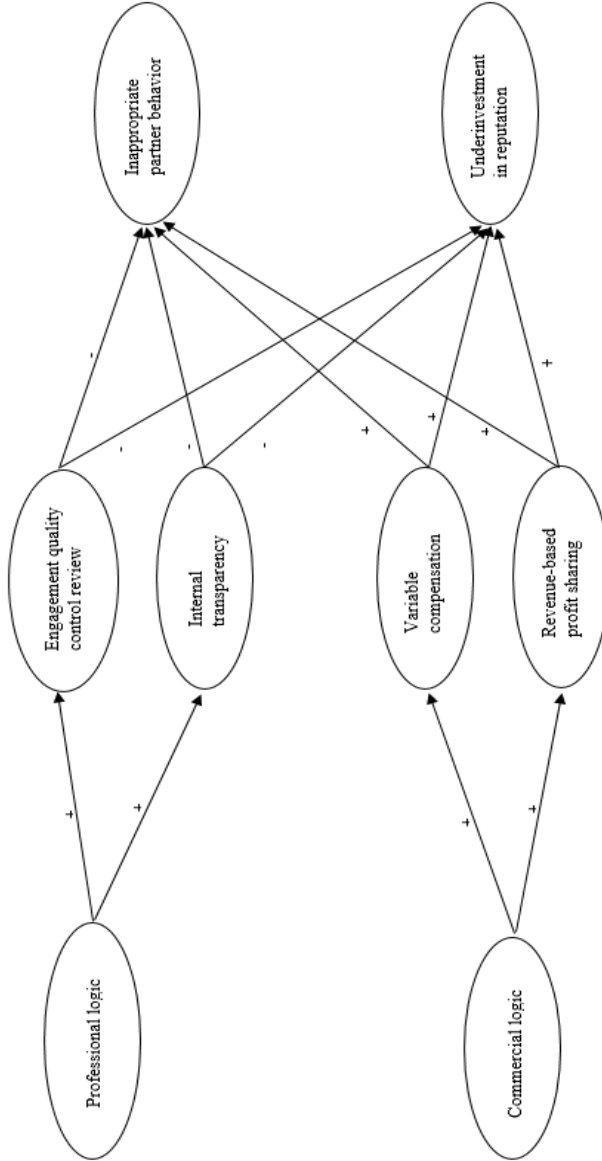
Instrument Development

The survey consisted of 8 psychometric scales. We relied on 2 existing scales validated in prior research and on 6 scales we purposely developed ourselves. We followed canonical scale development procedures to develop these scales (Hinkin, 1998; Steenkamp & van Trijp, 1991). First, we generated a large pool of items based on commonly accepted theoretical definitions of the constructs (Ciabuski, Dellestrand, & Martin, 2011; Ghiselli, Campbell, & Zedeck, 1981). The content validity was assured by developing theoretically precise items. After item reduction, we used between 5 and 8 items per construct in order to minimize response biases without compromising construct validity (Hinkin, 1998; Schrieschies & Eisenbach, 1990; Schwab, 1978) (see Appendix A). The items for each scale were presented in a random order to avoid order effects. Internal consistency, goodness of fit, and convergent/discriminant validity were then assessed.

Given the large amount of items and the need to use structural equation modeling to rigorously analyze our survey data, we use a partial disaggregation strategy to link our indicators to their corresponding constructs (Little, Cunningham, Shahar, & Widaman, 2002). Parceling is preferred over the use of single indicators not only because single indicators often have lower reliability and smaller common-to-unique variances, but also because parcels reduce the number of parameters to be estimated (Coffman & McCallum, 2005; Kishton & Widaman, 1994; Little et al., 2002; Williams & O'Boyle, 2008).

Three parcels for each latent variable were created based on the domain representativeness approach (Kishton & Widaman, 1994). This means that the item with the highest factor loading is assigned to parcel 1, the item with the second-highest loading to parcel 2, and the item with the third-highest loading to parcel 3. The other items are assigned in reverse order.

Figure 1 Conceptual model of the effect of institutional complexity on member behavior.



All items were measured on 7-point Likert scales. The two dependent variables capture institutional disruption behaviors in the audit setting. Given the highly sensitive nature of these variables, prior studies in the audit setting have concluded that the potential for underreporting these disruption behaviors could be substantial (Carcello, Hermanson, & Huss, 1996; Dreike & Moeckel, 1994). Therefore, a more valid measure consists of asking the respondents not to rate their own behavior but to rate observed behavior of other partners at their firm. *Inappropriate partner behaviors* (α : .93) is an existing 5-item scale assessing “regulatory violations that have the potential to lead to an audit failure” (Carcello, Hermanson, & Huss, 1996, p.246). It consisted of items like ‘the amount of audit evidence was insufficient’, ‘a required auditing standard was not applied to a material account balance or class of transactions’, ‘an inadequate partner review of a critical area of the engagement work papers was performed’. *Underinvestment in reputation* (α : .74) is a 6-item scale capturing the degree of reputation jeopardizing behaviors in audit firms. Items like ‘partners in my firm put their personal interests before the collective reputation’, ‘In my firm, partners treat clients in a way that could damage the collective reputation’, and ‘partners could invest more in maintaining the collective reputation’ were included.

Two constructs serve as independent variables and are proxies for the institutional logics present in the audit field. *Professional orientation* (α : .67) is a 7-item scale inspired by individual level scales of professional commitment (Suddaby et al., 2007) and organizational level professionalism items developed by Sorensen and Sorensen (1972) as well as Schafer (2002). We define it as the relative identification of the firm with the goals of the profession. It consists of items like ‘what is best for the welfare of my firm is also best for the welfare of the profession’, ‘my firm values professional standards over profit considerations’, ‘the bottom line orientation of my firm is to serve the public interest’. *Commercial orientation* (α : .78) is a 6-item scale and assesses the degree to which respondents perceived that their firm was primarily concerned with the generation of

profits. Items included are 'my firm is primarily concerned with generating profits', 'the bottom line orientation of my firm is the generation of profits', and 'we take corrective action when we do not meet our financial performance targets'.

Four constructs serve as mediating variables capturing the extent to which certain practices are implemented in the audit firm. Two of those constructs tap into practices embedded in the professional logic. *Quality of engagement quality control reviews* (α : .82) is an 8-item scale based on Epps and Messier (2006) and Gibbins and Trotman's work (2002). These authors generated a list of the essential qualities of excellent reviewers. Respondents were asked to rate the extent to which reviewers in their firm reflected those qualities by asking whether reviewers 'engage in face-to-face discussions', 'have a good understanding of the client and industry', and 'provide clear and complete feedback'. *Internal transparency* (α : .85) is an existing 6-item scale developed by Kaptein (2008). It included items like 'If I criticize other partners' behavior, I will receive feedback on any action taken as a result of my criticism', 'Management is aware of the type of incidents and professional misconduct that occur in the immediate working environment of partners', and 'if a partner does something which is not permitted, I or another colleague will find out about it'. Two other constructs measured practices embedded in the commercial logic. *Importance of variable compensation* (α : .80) is a 5-item scale assessing the relative importance of the variable component in the total partner compensation package. It consists of items like 'the base salary constitutes only a small portion of the total partners' compensation', 'variable compensation is a substantial amount of total partner pay', 'the largest share of partners' pay is based on their performance'. *Profit sharing based on revenue generation* (α : .93) is a 7-item scale assessing the degree to which profit shares are awarded based on revenue generation. Respondents were asked to indicate to what extent qualities like 'entrepreneurship', 'acquisition of clients', and 'declarable hours' were important for the allocation of profit shares.

Several other items were included in the survey as control variables. *Audit firm reputation* is a dichotomous variable taking on the value of 1 if the audit firm is a Big Four firm and of 0 otherwise. Auditor reputation is perceived to be linked to the ability to acquire important clients and charge higher fees. The greater the reputation of an audit firm, the more there is at stake for the firm. Hence, Big Four partners might be less likely to engage in institutional disruption behaviors. *Country* dummies were included to control for any unobserved institutional characteristics of the national contexts that could influence auditor behavior.

Data Reliability and Validity

Convergent and discriminant validity were evaluated in order to establish construct validity. Confirmatory factor analyses established convergent validity because the indicators loaded positively and significantly on their latent variables (Carmines & Zeller, 1979; Kline, 2010; Steenkamp & Van Trijp, 1991). This conclusion is further supported by the values of the average variance extracted (AVE) for the latent constructs which range between .4 and .8. We then assessed discriminant validity by comparing the fit of an unconstrained measurement model to that of a constrained measurement model (Hinkin, 1998; Kline, 2010). All possible pair-wise comparisons were estimated, and all constrained models demonstrated a poorer fit. Hence, discriminant validity is established. This conclusion is further corroborated by a multicollinearity analysis, which indicated that all variance inflation factors of possible pairwise comparisons were appropriate (O'Brien, 2007).

Construct reliability was confirmed by appropriate Cronbach alphas and by composite reliabilities ranging between .7 and .9. We further checked the validity of our sample as we draw on three different countries. In order to assess the differences in means of our variables, we ran a one-way ANOVA. Through post-hoc testing, we concluded that

differences exist between the countries. Therefore we will carefully control for the countries.

There is a potential risk for common method variance (CMV) because all the data are extracted from a same source in a same questionnaire (Bagozzi & Yi, 1991; Podsakoff, Mackenzie, & podsakoff, 2003, p.879). As an ex-ante precaution, we randomized the order of items of different scales (Chang, van Witteloostuin, & Eden, 2010). Through post-hoc statistical techniques CMV was assessed. First, the Harman's single factor test rendered an 8-factor solution with the first factor only accounting for 21.9 % of the variance (Podsakoff & Organ, 1986; Podsakoff et al., 2003). This test therefore provides diagnostic evidence of the absence of common method variance but does not provide any evidence that accounts for method effects. Therefore, following Podsakoff and colleagues (2003), we followed the trait-and-method procedures (Cote & Buckley, 1987). The trait-and-method model presented a better fit to the data than the full measurement model ($\Delta \chi^2$ 82.56; Δ d.f. 36; $p < .001$) attesting to the presence of CMV. To establish whether CMV is a real threat, we estimated the amount of variance explained by the common method factor. This accounted for 10%, which is well below the critical cut-off point of 25% (Williams, Buckley, & Cote, 1989). Therefore, we conclude that our results cannot be explained by CMV.

Model Specification

To empirically test our theoretical model, we run a structural equation model by using LISREL 8.80 with maximum likelihood estimation routines (Anderson & Gerbing, 1988; Fornell & Larcker, 1981; Jöreskog, 1966; Kline, 2010).

RESULTS

Table 1 presents the descriptive statistics, reliability and validity coefficients, and correlations of the latent variables. The theoretical model fits our data well (χ^2 731.58; d.f. 299; RMSEA .08; CFI .90; GFI .83). The ratio of chi-square to degrees of freedom is 2.44,

which is below the cut-off point of 3 (Carmines & McIver, 1981). This further supports the good fit of our data to the structural equations. The structural parameter estimates for the hypothesized model can be consulted in table 2. Figure 2 depicts our theoretical model including path coefficients and R^2 of the latent dependent variables.

Our data provides ample support for our theoretical predictions. All but three paths are significant and in the hypothesized direction. For the equations predicting the practices, we find that a professional logic is positively and significantly associated with practices like internal transparency ($\beta = .40$; $t = 4.38$) and quality internal reviews ($\beta = .41$; $t = 4.47$). We also establish that a commercial logic is positively and significantly associated with practices like profit sharing based on revenue generation ($\beta = .20$; $t = 2.69$) and the importance of variable compensation ($\beta = .35$; $t = 4.43$). Hypothesis 1 suggests that practices embedded in the professional logic reinforce professional logic-congruent behaviors. We find significant negative paths between practices embedded in a professional logic and disruption behaviors. An engagement quality control review practice negatively impacts inappropriate behaviors ($\beta = -.23$; $t = -3.36$) as well as underinvestment in reputation ($\beta = -.15$; $t = -2.03$). Internal transparency reduces underinvestment in reputation ($\beta = -.35$; $t = -4.47$) but has no significant effect on inappropriate behaviors. Hypothesis 1 is therefore (partially) supported. Hypothesis 2 suggests that practices embedded in the commercial logic lead to professional logic-disruption behaviors. We find significant positive paths between profit sharing based on revenue generation and disruption behaviors such as inappropriate partner behaviors ($\beta = .21$; $t = 3.27$) and underinvestment in reputation ($\beta = .20$; $t = 2.85$). We do not, however, find a significant path between the importance of variable compensation and disruption behaviors. Thus, hypothesis 2 is not entirely supported. Our interpretation is that the practice of variable compensation elicits different types of disruption behaviors not captured by our measures of disruption behaviors. We further do not find significant paths associated with our country control variables or audit firm reputation control variable.

Robustness Checks

We conducted additional analyses to check the robustness of our results. We ran our structural model on two carefully selected and meaningful subsamples. First, we ran our conceptual model on the subsample of all non Big Four audit firms (n=235). This subsample is meaningful because it represents the majority of audit firms. The direction and significance of the paths remained identical to the results of the full sample. The fit of the model ran on this subsample was comparable to the fit of the model ran on the entire sample (χ^2 682.22, d.f. 279, RMSEA .08, CFI .90, GFI .82). We can therefore conclude that our findings are robust in this subsample.

Second, we ran our model on the subsample of all German audit firms (n=132). This subsample is meaningful because the German firms make up the majority of our sample. The fit of this model was slightly worse than the fit of our reported full sample model (χ^2 498.70, d.f. 259, RMSEA .08, CFI .90, GFI .77). This subsample reveals that the effect of revenue-based profit sharing and internal reviews on underinvestment in reputation is lost in the German context. This shows that underinvestment in reputation might be of less concern in the German context.

Table 1 Descriptive statistics, reliability and correlation coefficients

	Mean	SD	AVE	1	2	3	4	5	6	7	8
1. Professional logic	5.38	0.74	0.41	(.67)							
2. Commercial logic	4.17	1.17	0.50	-.26**	(.75)						
3. Variable compensation	3.66	1.53	0.67	-.12	.29**	(.86)					
4. Revenue-based profit sharing	3.50	1.50	0.83	.00	.21**	.22**	(.94)				
5. Internal transparency	5.46	1.04	0.70	.19**	-.02	.06	.06	(.87)			
6. Engagement quality control review	4.88	0.98	0.60	.21**	.05	.08	.17**	.55**	(.82)		
7. Inappropriate partner behaviors	1.93	0.85	0.84	-.26**	.10	-.03	.11	-.15*	-.22**	(.94)	
8. Underinvestment in reputation	2.84	0.94	0.53	-.27**	.27**	.05	.11	-.32**	-.19**	.31**	(.77)

** . Correlation is significant at the 0.01 level (2-tailed).

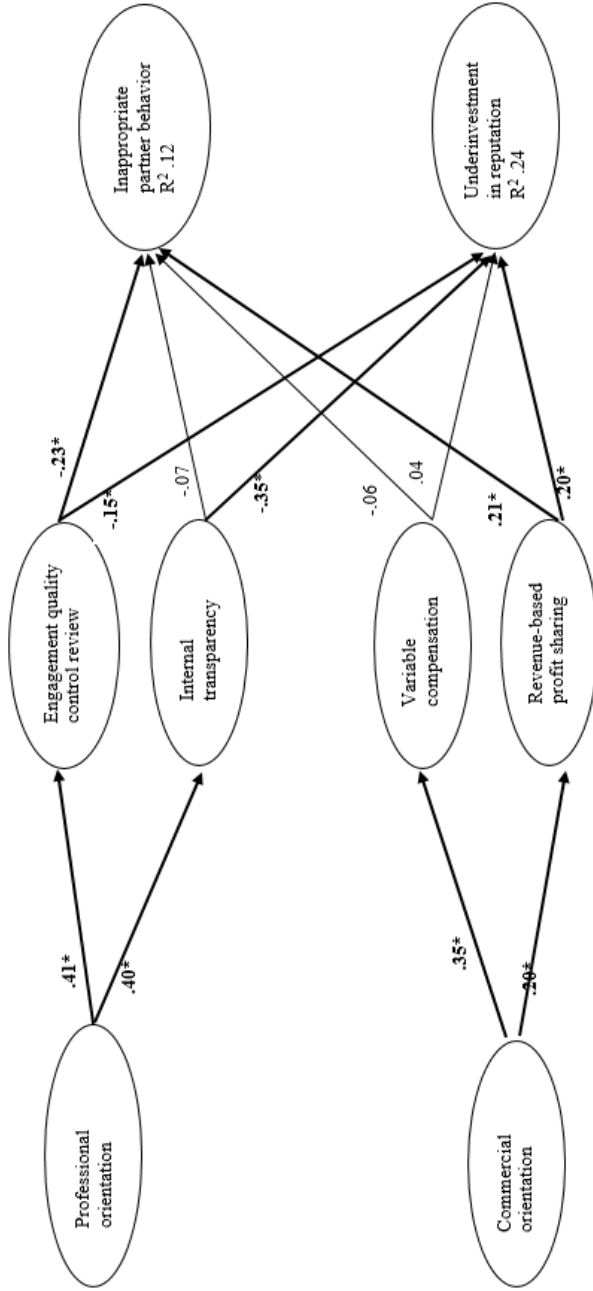
* . Correlation is significant at the 0.05 level (2-tailed).

Table 2 Structural equation modeling results

Variable	Compensation		Revenue-based profit sharing		Internal transparency		Engagement quality control review	
	unstd	st	unstd	st	unstd	st	unstd	st
Professional logic	.53*	.35*	.24*	.20*	.56*	.40*	.52*	.41*
Commercial logic								
Model fit statistics								
n=247								
χ^2	731.58							
Df	299							
RMSEA	.08							
CFI	.90							
GFI	.83							
Path coefficients								
			Inappropriate partner behaviors		Underinvestment in reputation			
Variable compensation			unstd	st	unstd	st		
Revenue-based profit sharing			-.03	-.06	.02	.04		
Internal transparency			.13*	.21*	.11*	.20*		
Engagement quality control review			-.06	-.07	-.27*	-.35*		
Belgium			-.26*	-.23*	-.14*	-.15*		
Germany			-.04	-.02	-.11	-.06		
Big four			.12	.07	.92	.11		
			-.39	-.10	.02	.00		

*significant at .05 level

Figure 2 Structural model



Control variables have been left out for clarity.
Bold lines represent significant paths.

DISCUSSION

Our study seeks a better understanding of the microfoundations of institutions (Greenwood et al., 2014; Greenwood et al., 2011; McPherson & Sauder, 2013). More specifically, this study is one of the first to link the macro- to the micro-level by focusing on how organizations strategically manage institutional complexity and on how this strategic response affects individual member behavior. We suggest that institutional complexity in an organizational field spurs on individual behaviors that can undermine or disrupt the incumbent logic through practice adoption. We empirically examine our theoretical claims in the audit field. The audit field is a highly appropriate context of application not only because it enables us to illustrate different types of institutional disruption behaviors, but also because these institutional disruption behaviors have highly consequential societal risks. We corroborate earlier studies' findings (Battilana & Dorado, 2010; Pache & Santos, 2013; Smets et al., 2012; Spicer & Sewell, 2010) by establishing that practices from incumbent professional and challenger commercial logics are selectively combined in an attempt to reconcile institutional demands. We deepen our understanding of the microfoundations of institutions by showing that the adoption of practices embedded in the commercial logic often triggers disruption behaviors that undercut the microfoundations of the professional logic and in so doing can undermine the public gatekeeping role of the auditor. As such, this study has made three important contributions.

Behavioral and Micro-oriented Research in Institutional Theory

At its inception, institutional research sought to understand how institutional processes shape organizations (Chandler, 1962; DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Zucker, 1987). Academics recognized that organizations were not the outcomes of technical contingencies but rather the outcomes of institutional pre- and proscriptions regarding socially legitimate ways of organizing. The organization stood at the center of

this research and institutions helped explain the organizing of collective effort (Meyer, Tsui, & Hinings, 1993). Over the years, however, institutional theorists shifted their interest towards understanding and explaining institutions per se (Greenwood et al., 2014; Meyer & Hoellerer, 2014; Zietsma & Lawrence, 2010). In the face of a continuously evolving organizational landscape, economic pressures, and institutional complexity, bringing back the original focus of institutional research would improve our understanding of how institutional processes shape today's organizations (Dacin, Goodstein, & Scott, 2002; Goodrick & Reay, 2011; Greenwood et al., 2011; Greenwood et al., 2014; Lounsbury, 2008; Tolbert, David, & Sine, 2011).

Even though a few studies have sought to explain organizations through an institutional lens, their main focus has been on institutional change as they address how and why organizations adopt a single new practice or reject an existing practice (Greenwood et al., 2014). These studies did not provide a holistic account of how organizations are actually managed and designed in the face of institutional complexity (Greenwood et al., 2014). We make an important contribution by not only probing into why organizations adopt a set of practices (instead of a single practice) in the face of institutional complexity (Battilana & Dorado, 2010; McPherson & Sauder, 2013; Pache & Santos, 2013; Smets et al., 2012; Spicer & Sewell, 2010), but also by advancing our understanding of how multiple field-level logics actually affect organizational member behavior (Greenwood et al., 2014).

More specifically, in our empirical efforts, we corroborate earlier findings by demonstrating that socially embedded actors strategically reply to institutional complexity by selectively combining elements of conflicting logics (Pache & Santos, 2013; Smets et al., 2012; Thornton et al., 2012). In particular, practices embedded in the professional logic are adopted in areas to secure audit quality, while practices embedded in the commercial logic are adopted in the incentive and reward structure of audit firm partners. We therefore confirm that organizations navigate through institutional complexity by

adopting elements of the logics in areas of the organization that best correspond to the underlying institutional demands (Battilana & Dorado, 2010; Friedland & Alford, 1991; Glynn & Raffaelli, 2013). Unlike earlier studies, we do not stop at either explaining practice adoption or at understanding which elements of the multiple logics actors enact as they manage complex institutional demands (Pache & Santos, 2013; Smets et al., 2012; Thornton et al., 2012). We take a step further by looking at the behavioral implications of this strategic response to institutional complexity. In particular, we find that, through the selective combination of practices, institutional complexity can trigger incumbent-congruent and disruption behaviors. Therefore, by linking the field level to the macro- and the micro-levels we bring the study of the microfoundations of institutions (Powell & Colyvas, 2008) forward by providing a comprehensive account of the organizational and behavioral implications of institutional complexity.

New Perspective on Institutional Conflict.

We also provide a new perspective on institutional conflict, by showing that conflict is often latent rather than manifest. Institutional conflict has been defined as ‘antagonisms in organizational arrangements required by institutional referents’ (Pache & Santos, 2010, p. 457). Prior research has mostly associated institutional conflict with uneasy organizational tensions and with visible clashes of ideology (e.g. see Marquis & Lounsbury, 2007). We propose an alternative take on institutional conflict by seeing it as a covert and even unintended disruption process (Jazarbowski et al., 2009; Lawrence & Suddaby, 2006; Maguire & Hardy, 2009). This disruption process does not result in a sudden or visible conflict. Instead, organizational members first question the previously taken-for-granted incumbent behaviors, then justify disruption behaviors, and ultimately their cumulative behaviors have the potential to disrupt the incumbent logic (Hardy & Maguire, 2009; Jazarbowski et al., 2009). The disruption process might also not be intended. Our context of application is a case in point. Audit firms depend on both logics for their success (Malsch

& Gendron, 2013), yet are faced with disruptive forces that threaten their legitimacy towards the professional logic. We therefore propose that the concept of institutional conflict should be broadened to also include more subtle disruptive forces which undercut the microfoundations of competing logics and lead to the reconfiguration of the organization.

To further refine our understanding of the concept of institutional conflict requires not only broadening the type of conflict—be it manifest or latent—, but also carefully defining the source of institutional complexity in order to systematically predict the behavioral implications of institutional conflict. In line with Besharov and Smith (2014), we believe that understanding the features of logics and the relationships amongst them is a step in this direction. An often unacknowledged assumption of prior research is that institutional complexity results from the pressures of institutional logics that originated outside the organization. Carrick-Cagna and Santos (2009), for instance, focused on microfinance organizations that are caught between an external banking logic and an external development logic. Other scholars focused on health care organizations that face the medical care logic and the government imposed economic efficiency logic (Scott, 1983). In these cases, the external origin of the contending logics results in active conflict (Pache & Santos, 2010). Therefore resisting or defying the institutional conflict have been the main behavioral responses (Jazarbkowski et al., 2013; Pache & Santos, 2010). Institutional conflict can, however, also result from the interplay of logics with different origins. In the audit field, for instance, the professional logic originated from the external regulatory, social, and cultural environment, while the commercial logic has its origins inside the firm as a result of hiring practices (DiMaggio & Powell, 1983; Malsch & Gendron, 2013). The dependence on the external professional logic to secure key resources, such as a license to operate and staff, combined with the internal representation of the commercial logic bolsters internal commitment to conflict resolution (Greenwood & Hinings, 1996; Pache & Santos, 2010). This results in a much more latent form of conflict with more subtle

disruptive forces. We therefore suggest that logic origin is an important aspect that needs to be accounted for when understanding the source of institutional complexity in order to predict the behavioral response to institutional conflict.

In addition, in our empirical setting, we observed that the source of institutional complexity can also be a function of the level of analysis of institutionalized practices. In the audit field, the silent takeover of professionalism by commercialism could be ascribed to a shift in the level of analysis of institutionalized practices from the collective to the individual level. Professional practices, which are maintained through collective policing and reinforcement efforts, are robust as long as there are no individual incentives for defection. However, commercial practices prioritize individual performance over collective maintenance, thus hollowing out practices with a public good or character. Taking into account the level of analysis of institutionalized practices is therefore another important aspect for understanding how institutional conflict impacts member behavior.

This more refined, intra-organizational view on institutional conflict also shows that the outcome of such conflict is not necessarily a shift in prevalence of one organizational form at the expense of another. Instead, organizations integrate aspects of the traditional incumbent logic with aspects of the challenger logic and become sedimented (Cooper et al., 1996; Empson et al., 2013). This so-called sedimentation is achieved by simultaneous acts of institutional maintenance and disruption (Empson et al., 2013; Lawrence et al., 2009). Sedimentation therefore encompasses intra-organizational change in which new coalitions challenge the prominence of incumbent coalitions. The audit industry is a case in point as representatives of the more recent consulting branches currently lead many audit firms.

Contextualization in the Audit Field

This study further also provides interesting insights for the literature on the design challenges of professional service firms (PSFs) (Greenwood et al., 2007; Greenwood &

Miller, 2010; Greenwood et al., 2010). PSFs are distinct types of organizations in which a highly educated and professionalized workforce delivers complex, customized, and knowledge-intensive services (von Nordenflycht, 2010). Partly because of the difficulty in gaining access to private organizational data, available research has neglected to study the design challenges of PSFs (Greenwood & Miller, 2010). The collection of survey data in the traditional auditing PSF enabled us to show that audit firms have adopted sedimented organizational practices in response to institutional demands (Cooper et al., 1996). We therefore conclude that the configuration of organizational practices in PSFs can be traced to institutional complexity.

PSF design is important because it undergirds organizational performance and survival (Greenwood & Miller, 2010). Adopting the right combination of organizational practices will provide the framework that enables behavior. Our study contributes in particular, to the design challenges of PSFs in traditional professions such as law and accounting (Greenwood & Empson, 2003) because these PSFs have a mandate to provide services intended to benefit the public, or gatekeeping services (Coffee, 2006). The behavior of organizational members in these gatekeeping PSFs is therefore particularly important. We show that adopting commercial practices in a previously dominant professional organization might induce partners to sacrifice professional conduct for financial short-term results. This, often unwantedly, threatens the microfoundations of the professional logic and can undermine the public role of gatekeeping PSFs. Thus far regulatory action to gatekeeper failures has been the default response in many jurisdictions (Bayou, Reinstein, & Williams, 2011; Carnegie & Napier, 2010; Sikka, 2009), but has not realized the desired behavioral changes. The implication of these findings is therefore that the prevention of gatekeeper failure cannot straightforwardly be accomplished by means of regulatory remedies. By showing that organizational practices significantly influence behavior, gatekeeper failure could be prevented by adopting organizational practices aimed at restoring adherence to the professional logic that is

under threat of being supplanted by a challenger commercial logic. Based on our study, we would suggest organizational solutions in terms of compensation policies (Knechel, Niemi, & Zerni, 2013) or ongoing internal quality controls (Bedard, Deis, Curtis, & Jenkins, 2008) to be fruitful remedies.

Limitations and Future Research

Our work provides opportunities for future research as we do not theorize or analyze the extent to which members engage in incumbent-congruent or disruption behaviors. Our conjecture regarding the pattern of incumbent-congruent and disruption behaviors draws upon Swidler's (1986) toolkit idea. Swidler's cultural toolkit can be redefined as a 'behavioral toolkit' consisting of the frames of reference and expected behaviors of available and enacted institutional logics. Because the elements of the behavioral toolkit are fragmented and malleable (Thornton et al., 2012), actors do not just reproduce the behavioral expectations of the toolkit. Instead, actors pragmatically invoke and tailor the toolkit's elements to fit particular situations contingent on their interests. Therefore, we speculate that in particular situations organizational actors will engage in incumbent-congruent behaviors, while in others they will suit their interests by engaging in disruption behaviors. Applying this to the audit field, partners will be more inclined to invoke the elements of the commercial logic because these better fit their personal interests than the elements of the professional logic. We encourage future research to build on our work by seeking a deeper theoretical understanding of and empirical ground for how this behavioral toolkit is used on the ground.

In addition, next to the usual limitations applicable to survey research, the busy schedules of audit firm partners required us to issue a relatively short survey in order to maximize the response rate. This hampered us from fully capturing the entire organizational design and its variations (Lounsbury, 2007, 2008; Marquis & Lounsbury, 2008). Therefore, instead of providing a comprehensive picture of the effect of institutional

complexity on design, we provide empirical evidence confirming that institutional complexity shapes the selective combination of organizational practices. We encourage researchers to conduct in-depth field studies to arrive at a comprehensive understanding of how institutional complexity affects organizational design. Similarly, we were able to collect data on only two types of disruption behaviors. Analyzing a broader spectrum of disruption behaviors would provide more refined insights into the effect of institutional complexity on member behavior. A first step would be to map the range of disruption behaviors by collecting archival data through regulatory agencies as they possess valuable information regarding different types of professional violations. Therefore, there is considerable opportunity for future research to extend the contributions of this study.

CONCLUSION

Our study is one of the first to develop and test theoretical predictions on how firm-level strategic responses to competing institutional demands can (unwittingly) lead to individual-level institutional disruption behaviors. By analyzing the micro-dynamics of institutional complexity we strengthen the theoretical and empirical foundations of institutional research. Our study further shows the merits of interdisciplinary research. Audit firms, regulators, and scholars have much to learn from management theories as we show that audit firms' strategic response to institutional complexity can trigger behaviors that disrupt the professional logic of the audit field. These disruption behaviors can partially explain the recent audit failures and systemic crises of confidence. While much remains to be discovered, we hope that future research can build on our contributions to further our understanding of the microfoundations of institutional complexity and of auditor (mis)behavior.

APPENDIX C EMPLOYED SCALESInappropriate partner behavior (α : 0.93)

How often was an unmodified audit opinion issued while, in your opinion,

1. the amount of audit evidence was insufficient.
2. a required auditing standard was not applied to a material account balance or class of transactions.
3. an inadequate partner review of a critical area of the engagement work papers was performed.
4. a required accounting treatment was not applied to a material account or transaction.
5. the engagement partner received unsatisfactory explanations for the client's failure to book material audit adjustments.

Underinvestment in reputation (α : 0.74)

1. Partners in my firm put their personal interests before the collective reputation.
2. When deciding in favor of the firm's interests instead of their own, partners feel a sense of sacrifice.
3. Partners could invest more in maintaining the collective reputation.
4. All partners invest the same amount of effort in maintaining the firm's reputation. (reverse coded)
5. In my firm, partners treat clients in a way that could damage the collective reputation.
6. In my firm, partners treat internal constituents in a way that could damage the collective reputation.

Revenue-based profit sharing (α : 0.93)

Please indicate the extent to which the following aspects are taken into account for sharing profits in your firm:

1. Entrepreneurship.
2. Commercial orientation.
3. Personal profit contribution.
4. Cross-selling.
5. Acquisition of clients.
6. Growth of existing clients.
7. Declarable hours.

Importance of variable compensation (α : 0.80)

In my firm,

1. The base salary constitutes only a small portion of the total partners' compensation.
2. Partners' base salary is the largest component of their total pay. (reverse coded)
3. Variable compensation is a substantial amount of total partner pay.
4. The largest share of partners' pay is based on their performance.
5. Variable partner compensation is a small component of their total pay. (reverse coded)

Quality of engagement quality control reviews (α : 0.82)

In my firm, internal reviewers

1. Focus on the big picture.
2. Engage in face-to-face discussions.
3. Have a good understanding of my client and industry.
4. Provide clear complete feedback.
5. Give on-the-job training.

6. Provide timely feedback.
7. Are involved in planning.
8. Are technically proficient.

Internal transparency (α : 0.85)

Could you please indicate your level of agreement with the following statements?

1. If a partner does something which is not permitted, someone in the organization will find out about it.
2. If a partner does something which is not permitted, another partner will find out about it.
3. If a partner does something which is not permitted, I or another colleague will find out about it.
4. If I criticize other partners' behavior, I will receive feedback on any action taken as a result of my criticism.
5. In my immediate working environment, there is adequate awareness of potential violations and incidents in the organization.
6. Management is aware of the type of incidents and professional misconduct that occur in the immediate working environment of partners.

Commercial orientation (α : 0.78)

To what extent do you agree with the following statements?

1. My firm is primarily concerned with generating profits.
2. The 'bottom line' orientation of my firm is the generation of profits.
3. We take corrective action when we do not meet our financial performance targets.
4. Generating revenues is what matters most in my firm.
5. My income depends on the profit I realize for my firm.

6. Our incentive structure rewards revenue generation.

Professional orientation (α : 0.67)

1. What is best for the welfare of my firm is also best for the welfare of the profession.
2. My firm values professional standards over profit considerations.
3. My firm gives me the opportunity to fully express myself as a professional.
4. My firm is not very concerned about professional standards. (reverse coded)
5. The goals of my firm are aligned with the goals of the profession.
6. The bottom line orientation of my firm is to serve the public interest.
7. My firm emphasizes the importance of a professional attitude.

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Summary

Auditor misconduct has played a crucial role in the financial turmoil of the past decades, but is hardly understood itself. Research to date has focused almost exclusively on how external regulations can secure the integrity and quality of audit services, but has mostly ignored the influence of audit firms' organizational features and practices on auditor behavior. This is a serious omission as organizational factors may be potential causes for auditor misconduct, and because organizational practices could be potential remedies to auditor misconduct. In this dissertation, I seek to contribute to the conversation on auditor conduct by taking up an organizational perspective on auditor behavior.

The three studies of this dissertation each take an interdisciplinary perspective to develop a comprehensive analysis of how the organizational context of audit firms affects auditor behavior. The first study draws on stakeholder-agency theory to develop and test a theoretical model about the organizational antecedents of audit failures. The model identifies the organizational antecedents of auditor failure as well as the organizational remedies to auditor failure. The empirical results establish that audit firms' organizational features, such as their economic dependence on their clients or their profit orientation, are antecedents of auditor misbehavior. In addition, the findings show that organizational practices, such as client retention policies and internal transparency practices, reduce auditor misbehavior. This study therefore sets the stage for the rest of the dissertation by demonstrating that organizational factors can actually explain auditor misbehavior.

The second study then zooms into a specific organizational practice and explains its behavioral repercussions. This study builds on tournament theory to analyze the detrimental behavioral implications of the promotion system used in audit firms. The theoretical model identifies two design parameters of tournament-like promotion systems, namely the level of competitive intensity and the size of the prize of partnership, that are believed to contain powerful incentives that trigger self-interested behaviors and strategic

behaviors. The empirical results support the theoretical predictions by showing that the design parameters of tournament-like promotion systems affect self-interested and strategic auditor behaviors. This study therefore hones our understanding of the behavioral implications of a specific organizational practice widely adopted in audit firms.

The last study takes a wider institutional perspective to refine our understanding of the microfoundations of institutions. This study investigates how audit firms strategically manage their complex institutional environment and how their strategic organizational responses (often unintendedly) influence auditor behavior. More specifically, this study posits that audit firms strategically combine organizational practices with conflicting professional and commercial objectives in order to satisfy wider institutional demands. This strategic combination of practices can have a distorting effect on auditor behavior. The empirical results corroborate the theoretical contentions by establishing that the strategic combination of professional and commercial organizational practices triggers behaviors that disrupt professionalism in audit firms. This study therefore advances our understanding of the behavioral implications of the organizational context of audit firms by showing that adopting commercial organizational practices in a previously professional organization can (often unintendedly) undermine the public role of auditors.

As a whole, this dissertation therefore provides compelling evidence that the organizational context of audit firms indeed has a significant role to play in explaining auditor behavior. As such, I show that an exclusive reliance on regulatory reforms may not be sufficient to foster auditor integrity and that effective remedies to combat audit failures reside at the level of the organizations providing the audit. I therefore provide important and innovative contributions to both the audit and organizational literatures.

Samenvatting (Dutch Summary)

Hoewel het wangedrag van auditors een cruciale rol heeft gespeeld tijdens de financiële, mondiale onrust van de afgelopen decennia, is dit wangedrag een fenomeen dat zelf onvoldoende is begrepen. Onderzoek heeft bijna uitsluitend gefocust op hoe de externe regelgeving de integriteit en de kwaliteit van de audit kan waarborgen maar heeft de invloed van de interne eigenschappen en praktijken van auditkantoren zelf op auditorgedrag nagenoeg verwaarloosd. Dit is mogelijk een ernstige nalatigheid vermits, enerzijds, organisatorische factoren het wangedrag van auditors kunnen veroorzaken en, anderzijds, een kritische kijk op organisatorische praktijken mogelijke remedies aan het licht kan brengen. In dit proefschrift wordt getracht bij te dragen aan de discussie over het wangedrag van auditors vanuit een organisatorisch perspectief.

De volgende drie studies, beschouwd vanuit een interdisciplinair perspectief, geven een uitgebreide en diepgaande analyse over de wijze waarop de organisatorische context van auditkantoren het auditorgedrag beïnvloedt. De eerste studie is gestoeld op de stakeholder-agency-theorie om een theoretisch model over de organisatorische antecedenten van auditor wangedrag te ontwikkelen en te testen. Het model identificeert zowel de organisatorische antecedenten van als de organisatorische remedies voor auditor wangedrag. De empirische resultaten stellen vast dat organisatorische eigenschappen, zoals de economische afhankelijkheid of de winstgerichtheid van auditkantoren, antecedenten zijn voor auditor wangedrag. Bovendien tonen de bevindingen aan dat organisatorische praktijken, zoals praktijken omtrent het behoud van clientèle en interne transparantiepraktijken, auditor wangedrag verminderen. Door aan te tonen dat interne, organisatorische eigenschappen daadwerkelijk auditor wangedrag kunnen veroorzaken, legt deze studie de basis voor het vervolg van het proefschrift.

De tweede studie vestigt de aandacht op één specifieke, organisatorische praktijk en verklaart de gedragsmatige gevolgen daarvan. Deze studie is gebaseerd op de

tournament-theorie om de nefaste, gedragsmatige gevolgen van het promotiesysteem in auditkantoren te verklaren. Het theoretisch model duidt twee parameters aan van de opzet van toernooi-achtige promotiesystemen die krachtige incentives voor eigenbelang en strategische gedragingen omvatten, namelijk de graad van competitieve intensiteit in de “prijskamp” en de omvang van de prijs voor partnerschap. De empirische resultaten ondersteunen de theoretische voorspellingen. De opzetparameters van toernooi-achtige promotiesystemen hebben daadwerkelijk invloed op eigenbelang en strategische gedragingen. Derhalve verfijnt deze studie onze kennis over de gedragsmatige gevolgen van een specifieke, organisatorische praktijk die vrij algemeen wordt toegepast in auditkantoren.

Ten slotte verdiept de derde studie vanuit een breder, institutioneel perspectief de kennis over de micro-fundamenten van instituties. Nader wordt verklaard hoe auditkantoren strategisch omgaan met hun complexe, institutionele omgeving en de wijze waarop hun strategische reacties (vaak onbedoeld) auditorgedrag beïnvloedt. Deze studie duidt met name aan dat auditkantoren organisatorische praktijken met tegenstrijdige professionele en commerciële doelen combineren om aan hun algemenere, institutionele eisen te voldoen. Deze strategische combinatie van praktijken kan gedrag verstoren. De empirische resultaten ondersteunen de theoretische voorspellingen door vast te stellen dat de strategische combinatie van professionele en commerciële, organisatorische praktijken gedrag kan veroorzaken waardoor professionalisme verzwakt in auditkantoren. Deze studie bevordert dus onze kennis over de gedragsmatige gevolgen van de organisatorische context van auditkantoren door aan te tonen dat het aannemen van commerciële praktijken in een voorheen professionele organisatie (vaak onbedoeld) de publieke functie van auditors kan ondermijnen.

In zijn geheel, levert dit proefschrift zodoende overtuigende bewijzen en bevindingen dat de interne, organisatorische context van auditkantoren inderdaad zelf een veelbetekende impact heeft op het gedrag van auditors. Daarbij wordt in elk geval weerlegd dat uitsluitend steunen op hervormingen in regelgeving voldoende is om de

integriteit van auditors te waarborgen. Daarenboven wordt aangetoond dat effectieve remedies om auditor wangedrag te bestrijden op het vlak van de organisatie van de auditkantoren zelf liggen. Moge dit proefschrift belangrijke en innovatieve contributies leveren aan de bestaande, wetenschappelijke literatuur in Organisaties en Audit.

About the Author

Jorien L. Pruijssers (1987) received her Master's degree in Law and Accounting (with distinction) from the London School of Economics and Political Science and her Bachelor in Economics (with great distinction and on the Dean's honor List) from McGill University. She started her PhD at the Rotterdam School of Management of the Erasmus University in December 2010, and was a visiting PhD at HEC Paris. Jorien is currently an Assistant Professor of Accounting at the Desautels Faculty of Management of McGill University. Next to her academic activities, Jorien was a treasurer of the PhD council at the Rotterdam School of Management, and a



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AN ORGANIZATIONAL PERSPECTIVE ON AUDITOR CONDUCT

Auditor misconduct has played a crucial role in the financial turmoil of the past decades, but is hardly understood itself. Research to date has focused almost exclusively on how external regulations can guard the integrity and quality of audit services, but has ignored the influence of audit firms' organizational features on auditor behavior. This is a potentially serious omission as organizational factors may be potential causes for auditor misconduct, and because organizational practices could be potential remedies to auditor misconduct. In this dissertation, I seek to redirect the conversation on auditor conduct by taking an organizational perspective. This dissertation therefore provides compelling evidence that the organizational context of audit firms indeed has a significant impact on auditor behavior. In so doing, I show that an exclusive reliance on regulatory reforms may not be sufficient to foster auditor integrity and that effective remedies to combat audit failures reside at the level of the organizations providing the audit. I therefore provide important and innovative contributions to both the Audit and Organizational literatures.

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