WORKING PAPER

Understanding Audit Firm Culture through the Lens of the Competing Values Framework

Murray Barrick
Olof Bik
Jere Francis
Lena Pieper
Ann Vanstraelen

KEY TAKE-AWAYS

Audit firm culture is viewed by regulators and inspectors as the means to enhance audit quality. This study uses the Competing Values Framework (CVF) to explore the culture of large audit firms, and their attempts to change their cultures. We find that these firms predominantly emphasize a culture characterized by collaboration and control, which is consistent with an inward focus. We also find that audit firms struggle to implement a consistent understanding of culture across their offices and function levels, and there is a gap in how partners perceive culture compared to that of non-partner staff. This ”culture gap” has negative consequences on auditors, as larger culture gaps are associated with lower psychological safety and poorer personorganization fit. Embedding mechanisms can lower the culture gap, but having adequate resources is far more important of an embedding mechanism than “tone at the top.” The findings underscore the importance of actively communicating and reinforcing stated cultural values, and provide audit firms with a practical tool to diagnose problems in achieving culture change.

2024/09 – 29

Project Number: *2020B04*

Foundation *for* Auditing Research

Understanding Audit Firm Culture through the Lens of the Competing Values Framework*

by

Murray R. Barrick
Texas A&M University

Olof Bik
University of Groningen

Jere R. Francis
Maastricht University

Lena Pieper
University of Illinois at Urbana-Champaign

Ann Vanstraelen
Maastricht University

Draft Date: August 30, 2024

*We thank the Foundation for Auditing Research for Grant 2020B04 which facilitated this project. We also thank participants in the surveys and the 9 audit firms that provided additional data for the research. The views expressed are those of the authors and not necessarily those of the Foundation or the firms in the study.

Understanding Audit Firm Culture through the Lens of the Competing Values Framework

Summary

Audit firm culture is viewed by regulators and inspectors as the means to enhance audit quality. This study uses the Competing Values Framework (CVF) to explore the culture of large audit firms, and their attempts to change their cultures. We find that these firms predominantly emphasize a culture characterized by collaboration and control, which is consistent with an inward focus. We also find that audit firms struggle to implement a consistent understanding of culture across their offices and function levels, and there is a gap in how partners perceive culture compared to that of non-partner staff. This "culture gap" has negative consequences on auditors, as larger culture gaps are associated with lower psychological safety and poorer person-organization fit. Embedding mechanisms can lower the culture gap, but having adequate resources is far more important of an embedding mechanism than "tone at the top." The findings underscore the importance of actively communicating and reinforcing stated cultural values, and provide audit firms with a practical tool to diagnose problems in achieving culture change.

Keywords: audit firm culture; competing values framework; audit quality

Understanding Audit Firm Culture
through the Lens of the Competing Values Framework

1. Introduction

Audit firm culture is a hot topic for audit regulators. In the United States, the PCAOB added a formal assessment of audit firm culture as part of its quality control assessment, starting with the 2024 inspections (PCAOB, 2023). In the Netherlands, the Dutch regulator AFM has been pursuing a culture initiative since 2014, as a means of improving audit quality. The Financial Reporting Council in Great Britain also has focused on culture, with a particular emphasis on internal cultural barriers to the exercise of professional skepticism (Financial Reporting Council 2022).

Audit firm culture has also been explored by scholars. Andiola, Downey, and Westerman (2020) and Alberti, Bedard, Bik, and Vanstraelen (2022) review recent academic research. Some of the themes studied are tone at the top, culture embedding mechanisms, professionalism versus commercialism, independence, skepticism, ethical judgments, learning cultures, socialization processes, and interactions among audit team members. Both papers call for new research to gain a more complete understanding of audit firm culture, and Andiola et al. (2020) specifically suggests research that draws on literatures and theories outside of traditional accounting research. We answer these calls by examining audit firm culture using theory and methods from the organizational behavior literature.

Organizational culture is a broad construct and is generally described as relating to shared values, assumptions, and beliefs held by people within an organization that create underlying behavioral norms and expectations, and which guide the day-to-day actions of people in organizations (e.g., Chatman and O"Reilly, 2016; Hartnell, Ou, Kinicki, and Choi, 2011; Schein, 2010; Schneider, González-Romá, Ostroff, and West, 2017). Our paper studies the culture of large audit firms using a theoretical perspective that is new to the accounting literature, the "competing values framework" which is based on the work of Quinn and Rorhbaugh (1981, 1983), as further developed by Cameron (1985) and Cameron and Ettington (1988).

There is no single, correct way to study organizational culture, although the CVF is a widely used empirical approach (Ten Have, Ten Have, Stevens, van der Elst, and Pol Coyne, 2003; Cameron et al. 2006; Hartnell et al. 2011).[1] Cameron and Quinn (2011) acknowledge that the CVF is not necessarily a complete representation of all potential dimensions of importance in studying organizational culture. Chatman and O'Reilly (2016, pp. 208-210) and Chatman and Choi (2022) in their reviews of the research literature, critique the CVF and raise potential concerns over construct validity in the survey instrument (OCAI, 2019) that is used in CVF research. However, studies have shown the OCAI instrument to be reliable (consistent across raters) and a valid representation of culture types (see Yeung, Brickbank and Ulrich, 1991; Kalliath, Bluedorn and Gillespie, 1999; Zammuto, and Krakower, 1991). Studies also report evidence that the CVF is useful in linking cultural values with organizational outcomes (Hartnell et al, 2011; Hartnell, Kinicki, Lambert, Fugate, and Doyle Corner, 2016). Our view is that the CVF may not necessarily be a direct measure of the "construct" of culture, but it does capture manifestations of culture with respect to an organization's dominant characteristic, strategic emphasis, criteria of success, and leadership style, and these four dimensions help to understand the underlying culture of an organization.

[1] Numerous definitions of organizational culture exist in the research literature, and there are multiple approaches to the study of culture and its consequences. Verbeke, Volgering, and Hessels, (1998) observe that "Researchers in various disciplines such as psychology, sociology and anthropology applied their collective perspectives and approaches to study culture and have, over time, proposed more than 54 different meanings and conceptualizations of organizational culture." There are three broad approaches to the study of organizational culture: anthropological, sociological, and critical management studies. The CVF has its roots in the sociological approach.

The CVF views organizational culture as having two orthogonal dimensions: its focus (inward versus outward) and its control structure (tight control versus flexible control).[2] This gives rise to a 2x2 matrix in which there are four types of organizational cultures based on their focus and control: *Hierarchy Culture* (inward focus and tight control); *Clan Culture* (inward focus and flexible control); *Adhocracy Culture* (outward focus and flexible control); and *Market Culture* (outward focus and tight control). We follow Cameron and Quinn (2011) and re-label these four culture types as Control (Hierarchy), Collaborate (Clan), Create (Adhocracy), and Compete (Market), respectively. Each of the four culture types is explained further in Section 3.

An important feature of the CVF is its use as a diagnostic tool, to assess the gap between the current culture of the organization compared to the desired culture. Identifying this gap can inform the organization on what it needs to do differently to achieve the desired culture. This is particularly relevant to audit firms which face on-going challenges from regulators to create organizational cultures that support high-quality audits that result in low failure rates (FRC, 2018, 2022; IAASB, 2020; NBA, 2014; PCAOB, 2018).

The most basic question we explore is the extent to which audit firm professionals have a clear understanding of their organization's culture, and the degree to which there is consistency in this understanding across ranks and offices. There are reasons why an audit firm might not be particularly successful in creating a clear and consistent understanding of their organization's culture among professional staff and across offices. The national practices of audit firms are decentralized and operate through multi-office locations within a country. Audits are delivered by small engagement teams, whose members typically drawn from offices located near clients. Audit professionals spend most of their time working among small groups of colleagues, usually at client sites. This decentralized delivery of audits means that auditors do not experience the simple daily routine of going to an office where it is arguably easier to assimilate the cultural norms and values of the organization. Auditors may come together (as a firm) only in training sessions, and even these are increasingly being done online rather than in-person. This means that the lived experience of auditors in the audit firm's culture takes place very narrowly among a small group of colleagues with whom they work with in engagement teams.

Hence, the overarching question we explore is the extent to which audit firms are successful in overcoming these challenges and creating a common understanding of organizational culture among its audit professionals. More specific research questions include the following. Is there a dominant cultural type in audit firms? Are there differences among audit firms? Do the Big 4 firms differ from non-Big 4 firms? Within a firm, are there differences in the understanding of culture across ranks and offices, both of which raise questions about how deeply embedded culture is in audit firms. The above discussion also suggests there may be differences given the organizational structure of audit firms. Audit partners, as the owners and leaders of the firm, play a central role in establishing the corporate culture. We rely on the diagnostic aspects of the CVF to examine how effective audit partners are in (1) communicating and (2) implementing the audit firm's desired organizational culture.

To answer our research questions, we collaborated with the nine largest audit firms in the Netherlands, including all Big Four firms and the next five large audit firms, which are also global network firms. As an initial step, we conducted semi-structured interviews with the senior leadership of each Big Four firm to better understand the ongoing cultural initiatives that were introduced in response to recent regulatory pressures. In describing their initiatives, firm leaders discuss different elements of their organizational cultures, as well as tensions that exists. These tensions are in line with the four dimensions of the CVF, thereby validating our use of this framework to investigate audit firm organizational culture.

Our main analyses are based on survey responses from 2,795 auditors, 65% of whom are Big Four auditors. We rely on the "Organizational Culture Assessment Instrument" (OCAI) based on Cameron and Quinn (2011), along with other well-established scales from the organizational behavior literature to measure our key variables of interest. Our findings indicate that the dominant culture in these audit firms typically emphasizes collaboration and control, suggesting a strong inward orientation. The corporate culture generally appears to be stronger in the Big Four firms compared to the non-Big Four firms, as evidenced by higher average scores across all dimensions. We further observe nuanced differences among the individual audit firms, consistent with the expectation that each firm has its own unique corporate culture.

When we examine how successful the audit firms are in creating a consistent understanding of culture *within* their organization, we find significant variation. Perceptions of culture vary significantly across different function levels and across offices, highlighting the challenges posed by a decentralized organization in creating culture. We explore potential reasons for the observed variation within a firm. The first step in establishing a strong sense of organizational culture is the clear communication of desired values. Given the central role of the audit partners in creating organizational culture, we compare the partners' views of the firm values to those of the other employees. Our findings indicate significant discrepancies in how these values are perceived within the firm, suggesting serious communication problems.

Next, we examine the actual implementation of these values, and document that the current organizational culture consistently falls short of the desired culture across three of the four CVF dimensions. In subsequent analyses, we highlight that these gaps between the desired and current culture are problematic. The desired culture creates expectations among audit firm employees and by not fulfilling these expectations, other work-related attitudes, such as psychological safety and perceived organizational support, are lowered. In additional analyses, we explore which of the embedding mechanisms, as identified in prior audit literature (Alberti et al., 2022), can help in reducing the gaps between the desired and current organizational culture.

The study contributes to the audit literature by providing a detailed, empirically-based examination of how audit firm culture is perceived, and communicated. The CVF is a theoretical perspective that offers a novel lens through which we can understand the complex dynamics of audit firms and their current culture initiatives, thereby answering calls from prior literature (Andiola et al., 2020).

Our findings indicate that *Collaborate* is the dominant cultural value, followed by *Control*, which means audit firms are primarily inward focused. However, there are differences across ranks, with partners showing higher values for *Collaborate* while staff (non-partners) have higher values for *Control* as the perceived desired culture. This indicates that partners are not communicating effectively the desired culture of audit firms. This finding is reinforced when we look at the gap between the desired culture and the current culture of audit firms. Partners perceived a small gap, while staff see a much larger gap. We also look at the consequences of this "culture gap" and find that a larger gap has negative effects on perceived psychological safety, perceived organizational support, and the perceived person-organization fit, all of which can have dysfunctional consequences for audit firms. Finally we show that culture embedding mechanisms (Alberti et al, 2022) can reduce the culture gap. While tone at the top is widely viewed as critical, our study shows that having adequate resources is far more important than the tone at the top.

Our findings are also relevant to audit practice. Given the increased regulatory focus on culture, audit firms are in the process of changing their internal cultures to better support and improve audit quality. Our study highlights that merely stating desired cultural values is not sufficient. These values must be actively reinforced through consistent actions that change perceptions of organization's culture. The framework presented in this study provides audit firms with a practical tool to analyze their culture, and to implement their desired cultural changes.

The remainder of this paper is organized as follows. Section 2 reports on meetings with senior leaders of large audit firms to discuss their recent culture initiatives. Section 3 describes the competing values framework in more detail. Section 4 discusses the sample and survey instrument. design. Results are reported in Section 5, and we conclude in section 6.

2. Interviews with Senior Leaders in Audit Firms

As a prelude to the study, we met with senior leadership of each Big 4 audit firm in the Netherlands. The purpose was to discuss each firm's recent "culture initiative" in response to ongoing criticisms by the Dutch audit regulator (AFM) that the audit firms need to develop internal cultures that are better focused on the production of high-quality audits. The interviews were semi-structured as we used pre-set questions to guide the discussions. Two members of the author team were present at each meeting, and we independently wrote up our notes in developing the summaries of the meetings.

Each firm indicated they were in the ongoing process of developing their culture initiatives in response to growing pressures from AFM that began in 2014. The term "zero tolerance" for errors was used to describe these initiatives. It was clear the firms are taking this seriously, but it was sometimes difficult to pin down exactly what changes were being made to their organizational cultures. All of the firms take a narrow view of audit quality, with a focus on "quality" deficiencies that are identified in any of the following ways: normal internal file inspections/reviews, formal quality control reviews, real-time reviews/interventions of audits, and external inspections. Firm A's approach seems to be to talk about quality all the time, to increase the conscious awareness that quality is the dominant culture value. Firm D seems to have a similar philosophy. As discussed below, Firms B and C are taking more specific initiatives.

Each firm indicated that their initial focus has been on audit partner behaviors, suggesting a kind of trickle-down approach to the instillation of culture values. Firm A gets partner buy-in, and then uses partners to message the centrality of quality to their engagement teams. The firm uses partner training session that include "dialogues" and cases, and examples of desired good behaviors to create the culture of quality. The leadership understands that audit quality is affected by culture, but also by the firm's audit methodology and the compliance with that methodology. We came away with the sense that Firm A has the most formalized and rigid methodology of the Big 4 firms, with a lot of compliance check lists. At the same time, the leadership is concerned about the need to get more "judgment" back into audits.

Firm B's approach is holding partners more directly accountable for engagement quality, increasing their interactions (face time) with the audit team, and using "upward feedback" from the team to the partner. The firm has developed protocols and training sessions for how to do this.

Firm C also uses partners to drive the commitment to quality. Partners automatically get a "bad performance" report if there is evidence of a low-quality audit. The firm has cut clients, so partners have smaller portfolios. The idea is that this will give partners more face time with their audit teams and enable more coaching. Firm C also uses upward feedback from audit teams as part of what they call the "360" partner review.

Firm D was the most difficult to understand. The impression is that they focus on "coaching" and training to convey the firm's cultural values and commitment to quality. They seem to talk a lot about audit quality and engage in story-telling narratives to encourage the kind of behaviors that are expected. Interestingly, they are also trying to develop a "learning culture" in which auditors learn from their mistakes, but this seems to conflict with a zero-tolerance for errors. The firm also has dropped clients that were not deemed a good fit with the firm's values, but there is some continuing tension between the older partner-centered culture versus the new audit-firm-centered culture.

All of the firms indicated the quality assessments of partners feed into the performance appraisal systems and compensation outcomes. For example, Firm D tried a two strikes and you're out policy (two consecutive years of low-quality audits). This created a lot of strife, and they now have a policy of giving partners the opportunity to change and to improve.

While the firms are attempting instill the culture of quality throughout the organization, a primary focus seems to be on punishing partners as a deterrent to low-quality audits. Not surprisingly, the firms indicate there has been some resentment among partners over increased monitoring and interventions by the firms, and the loss of autonomy and control by partners. For example, Firms B and D do real-time interventions on audit engagements based on reviews by a central unit that monitors audit quality. One can characterize the change as a move away from the traditional partner-centered audit and moving toward more of a firm-based audit with greater centralized control over compliance with firm procedures. All of the firms indicated that some partners have left in response to these changes, and firm C specifically mentioned around 20% of its partners left the firm because of the changes.

A common concern among all four firms is that the focus on a zero-error culture comes at the expense of innovation and a neglect of the business side of the audit firms' practices. A singular focus on a zero-error culture is probably not sustainable, given the commercial business needs of the firms to be profitable. Firm C also expressed a concern that you cannot have a professional culture of learning from your mistakes if you are at the same time also punished for failures.

Finally, despite the focus of the culture initiatives on greater control by the audit firm to achieve quality, some of the firms see the culture initiatives as having a dual purpose: not only to increase audit quality, but also to increase job satisfaction, particularly among more junior staff. Firm A believes its culture initiatives have improved job satisfaction which is measured annually by internal surveys. All four firms are trying to limit excessive overtime as one way of improving job satisfaction, as well as facilitating audit quality, the idea being that excessive hours can result in poor job performance and low-quality audits.

Reflecting on the meetings in terms of the competing values framework, all four firms appear to have an inward focus with a primary emphasis on tight controls to ensure audit quality. This is descriptive of a *Control Culture*. However, firms B and C stood out as emphasizing the importance of audit team collaboration (*Collaboration Culture*) more than the other two firms Firm A and firm D appear to be a taking a holistic approach to systematically instill culture values and audit quality throughout the organization. While most of the initiatives are on focused on "internal" aspects of control, there was some discussion by firms B and C in particular of the need to maintain an "external" focus in terms of innovation and the business side of the firm (*Create and Compete Cultures*).

A final perspective comes from the leaders of firm A who opined that organizational culture has its limits in terms of its effect on audit quality. Despite the firm's culture initiatives, how people behave is driven more by personal and idiosyncratic factors than by the organization's culture. This points to a limit in the degree to which culture underpins individual behavior, and which might be problem in organizations like audit firms where the distributed nature of audit production makes it hard to "experience" and to internalize the cultural values of the organization.

To conclude, the meetings gave us a deeper appreciation of the challenges audit firms face in trying to change their cultures in response to regulator pressures. These meetings preceded our final decision to use the CVF, but we came away from the meetings with the belief that the CVF is a useful and timely approach to study audit firm culture. While a *Control Culture* is probably the dominant culture type for each firm, there are clearly tensions with respect to the control structure and whether it should be tight (*Control Culture*) or flexible (*Collaborative Culture*). There is also tension about the degree to which audit firms should have an inward focus on quality (*Control Culture*) to the exclusion of an outward focus on innovation and competition (*Create and Compete Cultures*). Our expectation is that we will see these ambiguities and tensions in the survey data using the OCAI survey instrument.

3. The Competing Values Framework

3.1. Background

Quinn and Rohrbaugh (1981, 1983) identify two primary dimensions of an organization's internal culture that relate to organizational performance: (1) the organization's choice of control structure (i.e., flexibility versus stability), and (2) the organization's primary focus as inward or outward, i.e., internally focused on people versus externally focused on new products. opportunities and customers. These two core dimensions (structure and focus) give rise to a two-by-two framework with four competing values that interact to define the culture of an organization, as illustrated in Figure 1.

[Insert Figure 1 Here]

Control Culture reflects an inward focus and a stable, tight, control structure. Control-oriented organizations value stability, consistency and predictability, and rely on the formalization, coordination, and monitoring of processes within the organization. They aim for efficient, timely and smooth processes. Leadership styles and success criteria emphasize these values. This culture type was termed “Hierarchy” in the original formulation of the CVF due an emphasis on bureaucracy and hierarchical structure to control work processes and behaviors. A *Control Structure* is prevalent in mature manufacturing industries.

Collaborate Culture indicates an inward focus with a flexible control structure. Such organizations value their employees and embrace communication, cohesion, and trust. They foster collaboration through nurturing, mentoring, and empowerment. Success is defined in terms of the development of human resources, and leadership emphasizes mentoring and nurturing. In the original formulation of the CVF this was called a Clan Culture because its emphasis on people is reflective of family (clan) values. The *Collaborate Culture* is dominant in the education sector.

Create Culture has an external focus and a flexible control structure. Such organizations value creativity, flexibility, and risk-taking. They also rely on individual initiative and creative problem-solving processes, in order to achieve cutting-edge solutions, and disruptive change. Leadership and success criteria emphasize innovation. The culture type was termed “adhocracy” in the original formulation of the CVF. Adhocracy is term coined by Bennis (1968) and refers to organizations that are flexible and creative, and which use informal structures, in contrast to bureaucratic organizations. A *Create Culture* is common in high-tech startup firms.

Compete Culture has an external focus, with a stable, tight, control structure. Such organizations are results-driven and customer-oriented. They encourage competition, productivity and achievement. Thus, they primarily pursue profitability and market-share increases. Leadership and success criteria are results oriented and winning in the marketplace. The original term in the CFV was market culture, denoting a focus on market competition. As high-tech startup firms like Apple, Inc. mature, their culture typically shifts to a *Compete Culture* (Cameron and Quinn, 2011).

As described by Quinn and Rohrbaugh (1983) and Cameron and Quinn (2011), the four competing values can co-exist to some degree. While there might be one dominant cultural type for some organizations, in other organizations there is not necessarily a single cultural value that dominates. Each organization has different needs, goals and particularities, requiring a unique balance. The way in which the competing values combine is what makes organizational culture idiosyncratic to each firm.

Cameron and Quinn (2011) argue that the CVF provides a link between culture and organizational effectiveness. In support of this, Hartnell et al. (2011) and Hartnell et al. (2016) demonstrate that culture type is significant in explaining organizational outcomes, over and above the effects of other organizational characteristics such as leadership behaviors, organizational structure, and strategy. The CVF has been used in numerous studies from various academic fields including organizational change, leadership studies, educational institutions, and operations management (Khazanchi et al., 2007; McDermott and Stock, 1999; Quinn and Spreitzer, 1991; Tsui et al., 2006; Zammuto and Krakower, 1991). In addition, it has been used to study organization in many countries beyond the United States, including Australia, Korea, Hong Kong, Italy, and Germany (Choi et al., 2010; Denison and Spreitzer, 1991; Duse et al., 2011; Kwan and Walker, 2004; Lamond, 2003).

3.2. The CVF and Audit Firms

We use the CVF as a lens to understand the organizational culture of audit firms. Auditing is a for-profit profession that serves the public interest, which implies inherent conflicting interests and competing forces. *Control Culture* is relevant to the auditing context given the need to monitor and control the quality of the audit process. Following the accounting scandals of the early 20th century, audit firms developed and invested in internal quality control systems. They designed and reinforced clear responsibilities, procedures and review processes for each rank and at each step of the audit process. Gendron and Spira (2009) argue that Arthur Andersen's failure could have been prevented through more bureaucratic controls. Research has investigated various audit firm quality control and risk monitoring mechanisms (see Jenkins et al., 2008 for an overview). However, quality control deficiencies persist, including problems with the culture in audit firms (Aobdia, 2019). This discussion underscores the importance of *Control Culture* in auditing.

Collaborate Culture is also intrinsically related to the auditing profession. The audit practice relies on engagement teams, in which trust and communication are key. In addition, auditors, from all ranks, mainly learn by doing and from their superiors' mentoring. Westermann et al. (2014) show that auditors primarily acquire knowledge through collaboration and communication with their peers while being on the job. Further, Miller et al. (2006) indicate that on-the-job training and feedback enhance auditors' motivation and performance. In turn, Herrbach (2010) shows that affective commitment is negatively correlated to certain quality reduction behaviors. Thus, the *Collaborate Culture* is central to the practice of auditing.

Compete Culture exists in the auditing profession as audit firms seek profitability and compete for market share. Picard et al. (2018) document the spread of a marketing ideology throughout audit firms in recent years, suggesting increased competition and customer focus. In addition, recent research indicates that economic capital and commercial focus outweigh social capital and professional focus in becoming partner (Carter and Spence, 2014; Kornberger, 2011). While the primary purpose of auditing is to provide assurance over financial information used by investors, the profession itself operates in a competitive environment and is subject to commercial pressures.

Create Culture might be seen as less obviously related to auditing given the tight controls over the audit process, which leaves little space for innovation and entrepreneurial behavior. However, the auditing industry must be open to innovations such as data analytics and artificial intelligence. Innovation can eventually provide new solutions and increase practice efficiency. However, research recognizes that for innovations to enter and affect the audit practice, both regulators and audit firms' interests must align (Curtis et al., 2016). Therefore, while the *Create* dimension is probably not dominant within the culture of audit firms, it is still likely to exist to some degree.

Thus, there is reason to expect that all four competing values of the CVF co-exist to some degree in audit firm culture. At the same time, based on our discussions with audit firms' leadership, there appear to be tensions among these four competing values that are specific to the way audit firms operate. For example, the audit firms emphasize their zero-tolerance culture with a tight control system to assure high-quality audit processes and outcomes, which is most consistent with a *Control Culture*. However, the firms also talk about developing a culture of openness, trust, personal growth, and learning from mistakes, which more clearly resembles the *Collaborate Culture*. In addition, all firms talked about the tensions between their audit quality initiatives (inward focus) and the possible neglect of their business needs and audit innovations (outward focus), which is suggestive that the outward focus on markets, innovation, and growth

(*Create and Compete Cultures*) has to some extent been sacrificed in the short term. For these reasons, there might be differences across firms in how they weight each of the competing values, and there may also be some degree of inconsistency within a firm (e.g., micro- or sub-cultures across ranks and offices).

Finally, tensions over culture also likely exist between regulators and audit firms. On the one hand, regulators favor internally focused values with a particular emphasis on *Control Culture*. On the other hand, audit firms may aim for more balance in their cultural values given the need to collaborate, to innovate, and to compete in the marketplace.

4. Research Design

4.1 Data Collection and Sample

We use the OCAI survey instrument to obtain data from auditors in the nine largest audit firms in the Netherlands, including the Big 4, through the Dutch Foundation for Auditing Research (FAR). [3]Our sample selection procedure is as follows. Our study targets all ranks and offices within each participating firm to capture firm culture and potential sub-cultures. Initially, we held introductory meetings with firm representatives to present the project and understand each firm's internal structure. Five firms permitted total population sampling, enabling us to survey all auditors. The remaining four firms utilized proportional stratified random sampling, with strata defined by function level and offices, and a consistent selection rate applied within each stratum. This approach ensures a representative sample across firms.

All selected auditors (n = 6,729) received an email with a survey link and a unique access key, along with an introduction to the project endorsed by top management. Two reminder emails were sent at one-week intervals, and the survey remained open for three weeks. For firms allowing

[3] The study and survey instrument have been approved by the corresponding Institutional Review Boards prior to administering the survey.

total population sampling, we participated in online meetings to present the research and allocate survey completion time. For others, we relied solely on email invitations. To ensure anonymity, we relied on an independent data center to distribute and process the surveys.

The survey distribution process took place between November 2020 and January 2021.[4] We selected and distributed our survey to a total of 6,279 auditors and obtained responses from a total of 3,195 auditors (response rate of 50.88%). A common limitation of survey research is the potential for non-response bias. However, with a response rate of 50.88% and no statistically significant differences between early and late responses, we are confident that our results are representative of the entire population of interest (Van der Stede, Young and Chen, 2005). We further remove survey responses that are incomplete, show insufficient effort, or are from non-audit support staff. The final sample includes 2,795 responses with 65% of the responses from the Big 4 firms (n = 1,809). Table 1 reports the sample composition per function level, and in aggregate. In line with our sampling strategy, the number of observations decreases as we move up the ranks.

[Insert Table 1]

Table 2 provides descriptive statistics of the auditors in our study, per function level and in aggregate. Overall, 32.1 % of our sample are female with an average age of 31.6 years.

The proportion of female auditors decreases significantly in the higher function level: while 37.6% of all staff auditors are female, only 12% of the equity partners in our sample are female.

[Insert Table 2]

[4] The survey was administered during the early stages of the Covid-19 crises. We have no reason to believe this affected the results, but cannot rule out the potential for an effect, particularly for junior staff who may not have experienced the normal in-person onboarding processes. In the survey we asked a number of COVID-related questions, and respondents indicated that COVID had not significantly affected audit practices, at least at the time of the survey.

4.2 Culture Measures Using the OCAI Survey Instrument

Use of the CVF in survey research originates from Cameron and Ettington (1988) who used CVF-based "word pictures" that conveyed the extent to which participants are satisfied with different core values that characterize their organization's culture. The instrument was further developed and validated through multiple research studies and applications (e.g., Deshpandé and Farley, 2004; OCAI, 2019).

Our use of the OCAI survey consists of 16 statements, four or which reflect each competing value (*Control*, *Collaborate*, *Create*, *Compete*) in each of four aspects of organizational culture: dominant organizational characteristic, strategic emphasis, criteria of success, and organizational leadership.[5] Within each of these four areas, there are four statements that reflect each one of the four cultural values. The complete 16-question survey instrument is in Appendix A. Statements 1 to 4 describe the dominant organizational characteristic; Statements 5 to 8 describe the organization's success criteria; Statements 9 to 12 describe the organization's strategic emphasis; and Statements 13-16 describe the organization's leadership style. The measure of *Collaborate Culture* is based on the answers to Statements 1, 5, 9 and 13. *Create Culture* is based on the answers to Statements 2, 6, 10, and 14. *Compete Culture* is based on answers to Statements 3, 7, 11, and 15. *Control Culture* is based on Statements 4, 8, 12, and 16.

To illustrate, the assessment of an organization's strategic emphasis uses Statements 9 to 12. Statement 9 says "A strategic emphasis on loyalty and mutual trust, commitment to the organization runs high" which captures the ideal of the *Collaborate Culture*. Statement 10 says "A strategic emphasis on commitment to innovation, trying new things, and searching for new opportunities" which is reflective of the *Create Culture.* Statement 11 says "A strategic emphasis

[5] We conduct our own factor analysis, which further validates the use of the survey instrument and its constructs.

on competitive actions, winning in the marketplace, and hitting goals" which is a *Compete Culture*. Statement 12 states "The organization emphasizes success on the basis of efficiency, dependable delivery, smooth scheduling" which captures the ideal of the *Control Culture.*

We ask participants to rate each statement using a 5-point Likert scale (1 = not at all important, 5 = extremely important) to answer "how important is this to your audit firm" to measure the audit firm's *desired culture.* Participants further answer the question "how much is present in your day-to-day work setting?" where the scale ranged from 1 (Rarely Present) to 5 (Constantly Present). This question captures the *current culture*, as it measures the extent to which each competing value is present in the auditor's day-to-day work setting.[6]

5. Results

5.1 Dominant Cultural Values of Audit Firms

The initial step in applying the Competing Values Framework (CVF) to the audit firms assesses the dominant culture type in these organizations. We conduct a comparative analysis of the desired firm culture across each of the four CVF dimensions: *Collaborate, Create, Control*, and *Compete*. The results, presented in Table 3, Panel A, indicate that all four dimensions are present to some extent within the audit firms, but their emphasis varies significantly.

[Insert Table 3, Panel A]

A repeated measures ANOVA confirms that the means across all four dimensions are significantly different ($p < 0.01$). Among these, the *Collaborate* (mean = 3.95) and *Control* (mean = 3.89) dimensions have the largest means, which indicates that audit firms primarily have an inward focus. The primacy of *Collaborate* aligns with the interview findings, which highlighted

[6] The OCAI instrument includes a third question, where participants are asked "how important is this to you?" to capture their personal values. We asked this question too; however, it is not currently included in our analyses.

the importance of teamwork and employee development within the audit context. The strong focus on *Control* reflects the necessity for regulatory compliance and the structured nature of audit work.[7]

Given the hierarchical staff structure and multi-office locations of audit firms, we next examine whether the desired culture is perceived consistently across different function levels and offices. The results are shown in Table 3, Panel B and C.

[Insert Table 3, Panel B and C]

The comparison across functional levels reveals a shift in cultural emphasis: while partners prioritize the *Collaborate* dimension (mean = 4.15) over *Control* (mean = 3.76), lower levels (e.g., senior staff) rank *Control* as the most important dimension (mean = 3.88) over *Collaborate* (mean = 3.83). This finding aligns with our interview impressions, where we equally had the impression that firm leadership frequently highlighted their strong focus on quality and control. Additionally, lower levels show a significantly higher mean for the *Compete* dimension.

When comparing different offices, we focus on office size, drawing on prior literature that links office size to audit quality (Francis & Yu, 2009; Francis et al., 2013). The relationship between office size and corporate culture is ex ante unclear: larger offices might face greater challenges in instilling a cohesive sense of culture, but they generally also have more resources at their disposal to do sol. Our analysis, comparing offices above and below the median size, indicates that larger offices exhibit a stronger sense of cultural values, as evidenced by higher means across all four CVF dimensions. We repeat this analysis separately for Big Four and Non-Big Four firms,

[7] Although the Big Four firms are often perceived as a homogenous group, our findings reveal notable differences among them—an observation consistent with insights from our initial interviews. These variations, while subtle, align with the values and corporate identities that each firm promotes on their websites and in their annual reports. For instance, one Big Four firm exhibits a significantly higher score on the Collaborate dimension compared to the others, which is consistent with its corporate identity prominently emphasized throughout its annual report. To protect the anonymity of the firms, we do not tabulate the differences between individual firms, as doing so could potentially reveal their identities.

given the significant differences in average office size between the two groups. The results are consistent across both subsamples: larger offices display stronger cultural values.

These descriptive analyses offer initial insights into audit firm culture, indicating that while audit firms are predominantly inward-focused, they experience a tension between stability and flexibility in the control structure. The findings also reveal significant variation in auditors' perceptions of firm values across ranks and offices. To explore this variation in greater depth, we next employ the CVF as a diagnostic tool to further examine the underlying audit firm cultural dynamics.

5.2 Diagnosing Audit Firm Culture

As previously discussed, the CVF is used to diagnose organizational culture change by identifying gaps between the desired culture and the current culture. A crucial first step in implementing a change in culture is effectively communicating the desired cultural values. In decentralized firms structured as partnerships, like audit firms, partners play a key role in embedding the culture and setting the tone. To assess the effectiveness of this communication, we calculate the difference between the partners' desired values and the perceptions of all other employees regarding these same desired values. Effective communication would be indicated by alignment between the two groups, with minimal differences. A positive difference indicates that partners view this dimension as more important to the firm than employees perceive it to be. Conversely, a negative difference suggests that employees believe this dimension is more important to the firm than the partners do.

We calculate the difference on each dimension individually and compute an *overall gap*. As a firm's organizational culture is ultimately defined by the unique combination of all four dimensions of the CVF, we derive this overall measure by summing the absolute difference across each dimension. This overall measure offers a broad assessment of the extent to which communication deviates from the intended values, while the dimension-specific analysis enables a more detailed identification of specific areas of misalignment. Table 4, Panel A, presents the results of this analysis.

The results reveal gaps across all dimensions, with the *overall gap* ranging from 1.81 to 2.18, and an average of 1.97. The largest gaps are observed in the *Compete* (-0.40) and *Collaborate* (+0.19) dimensions. A negative gap in *Compete* indicates that staff perceive a stronger external market orientation than partners. Conversely, a positive gap in *Collaborate* indicates that employees perceive this value as less emphasized than the partners desire it to be. This finding is particularly relevant for audit practice, as it highlights room for improvement in the alignment between partners' intended values and employees' perceptions if the desired culture.

In addition, we find that the gap widens as you move down in the hierarchy. Audit partners rely on lower-level leaders, such as engagement managers, to communicate the desired culture, but our results suggest that the communication might get more distorted the less direct contact partners have with staff auditors. These differences suggest that partners may need to enhance how they communicate the desired cultural values, a point echoed in interviews where partners acknowledged that the culture initiatives are ongoing processes. Effective communication will likely help firms better establish their desired culture.

In the second analysis, we examine how effective the audit partners are in establishing the desired culture. To do so, we compare the desired culture, as defined by the audit partners, to the current organizational culture, as perceived by the employees. We label this difference '*Culture Gap'*. We rely on employees' perceptions of the current organizational culture, as they are the ones who directly experience it. The results show that partners believe that the current culture is significantly closer to the desired organizational culture than employees do. Table 4, Panel B details the results.

[Insert Table 4]

The comparison between the desired culture and the current culture reveals significant gaps, underscoring that audit firms are still in the process of fully establishing their culture. Overall, the current culture does not align with the specific focus that partners desire. Partners aim for *Collaborate* to be the strongest dimension, yet the results show the largest gap is found for this dimension (0.40). Furthermore, there is no significant difference between *Collaborate* and *Control* in the current culture, indicating that employees perceive the culture as equally focused on these two dimensions.

Combined, the two analyses provide an empirical assessment of the alignment between the partners' desired cultural values and the employees' perceptions of the current cultural values. In a decentralized and partnership-structured firm like an audit firm, where partners are the primary drivers of cultural norms, any misalignment can significantly impact the firm's overall effectiveness, employee engagement, and adherence to core values. Understanding these gaps helps pinpoint where communication or implementation may be falling short, offering clear directions for improvement. To further highlight the importance of these gaps, we next investigate how they are related to other aspects of the work environment.

5.3 Consequences of the Culture Gaps

Recent regulatory initiatives emphasize the need to foster a quality-oriented culture, prompting audit firms to implement culture-focused initiatives. Closing the gaps between the desired firm values, i.e., what is being communicated, and the current organizational culture is crucial because employees form expectations based on the partners' communication. When these expectations are not met, it can negatively impact other perceptions of the work environment (Burgoon, 1993). We focus on three work-related constructs to examine possible negative consequences of the culture gaps: (1) psychological safety, (2) perceived organizational support, and (3) person-organization fit.[8] The importance of psychological safety in the audit environment is well established in the audit literature (Gissel and Johnstone, 2017; Nelson, Proell and Randel, 2019). Given that audit procedures are performed by engagement teams, it is crucial for all team members to feel psychologically safe, enabling them to speak up without fear of negative repercussions. When there is a discrepancy between the desired and actual culture, it can create a sense of inconsistency and unpredictability. Research shows that trust is fundamental to psychological safety (Edmondson, 1999). If employees perceive the organizational culture as misaligned with stated values, trust erodes, ultimately lowering psychological safety.

Perceived organizational support refers to employees' beliefs about how much the organization values their contributions and cares about their well-being (Eisenberger et al., 1986; Eisenberger et al., 1997). If the audit firm falls short of fulfilling its expectations about their corporate culture, it can result in dissatisfaction and the employees developing a negative view of the organization and the support of its employees.

Person-Organization Fit captures how well the employees perceive that their personal values align with the organization's values. Employees seek alignment of their personal values to the organization's values, and prior research shows that person-organization fit is predictive of job satisfaction and job performance, as well as the likelihood employee retention (O'Reilly, Chatman, and Caldwell, 1991; Van Vivien, 2000; Meyer, Hecht, Gill, and Toplonytsky, 2010). Initially, when selecting a company, employees will rely on the firm's communication about their desired

[8] All three variables are measured using well-established scales from the organizational behavior and psychology literature. Each construct consists of multiple items and the final variable is the average of all items.

firm culture. When now being confronted with a culture that is different from the desired culture, it will lessen their perceived fit with the organization.

We begin by regressing the three outcome variables on the *Overall Culture Gap*.[9] As previously discussed, organizational culture is the unique combination of the different dimensions rather than a single dimension. The *Overall Culture Gap* thus captures the deviation of the current culture from the values that the firm desires. We expect that a larger difference between the desired values and the current culture is negatively associated with the three work-related attitudes. In the second step, we disaggregate the *Overall Culture Gap* into its four dimensions to assess whether any specific cultural gap is more strongly associated with the outcomes than the others. The results are reported in Table 5.

[Insert Table 5]

The *Overall Culture Gap* is negatively related to psychological safety (-0.15, $p < 0.01$), to perceived organizational support (-0.25, $p < 0.01$), and to the person-organization fit (-0.21, $p < 0.01$). The individual dimensions of the CVF reveals that the culture gap on *Collaborate* has the strongest negative relation with each of the three outcome variables (-0.40, -0.61, -0.50, respectively, $p < 0.01$). Combining this finding with our earlier results suggests that audit firms do not effectively communicate nor do they achieve *Collaborate* as the dominant audit firm cultural value. Audit partners aim to have this as the strongest cultural value, but neither the employees' perceptions of the firms' desired values nor the perceptions of the current culture reflect this. Next, we examine how cultural embedding mechanisms can potentially reduce the culture gap.

[9] As the three outcome variables are measured at the individual level, we include two individual-level controls: female and firm tenure.

5.4 Embedding Mechanisms

Alberti et al. (2022) synthesize literature on audit firm culture and discuss various embedding mechanisms that audit firms can leverage to implement and reinforce their organizational culture. In this additional analysis, we explore which specific embedding mechanisms could be most effective in reducing the identified culture gaps, that is the differences between the desired culture and current culture. Alberti et al. (2022) identify seven key embedding mechanisms: (1) tone at the top, (2) formal performance feedback and reward systems, (3) allocating necessary resources such as time budgets and appropriate staffing, (4) training and development practices, (5) the firm's organizational design and structure, (6) audit processes and procedures, and (7) emphasis on collaboration and consultations.

Each CVF dimension requires different leadership styles and is aligned with specific organizational values (Cameron et al., 2014). For example, while the leadership style in a *Collaborate* culture is more people-oriented and focuses on mentoring and fostering relationships, the leadership style in a *Control* culture is more task-oriented, emphasizing coordination, monitoring, and adherence to established procedures. Consequently, to effectively reduce the gaps and implement the desired organizational values, different embedding mechanisms may vary in their effectiveness depending on the particular dimension of the CVF. Table 6 presents the results.

[Insert Table 6]

In the first column, we use the *Overall Culture Gap* as the dependent variable. Consistent with the role of embedding mechanisms in shaping organizational culture, we find negative associations between all seven of these mechanisms and the overall culture gap. In other words, the more the firm relies on these mechanisms, the smaller the culture gap. Among the mechanisms, resources and feedback systems exhibit the strongest negative associations with the overall culture gap. This finding underscores the importance of aligning actions with intentions to effectively change organizational culture. It emphasizes that to transform the culture, firms must not only articulate their desired values but also implement the appropriate systems and provide the resources to support these values.

The subsequent four columns break down the overall gap into each of the four individual CVF dimensions. Resources continue to demonstrate the strongest negative relationship across all dimensions, except for the *Compete* dimension. In line with the argumentation above, it seems that not all embedding mechanisms work equally when wanting to implement a specific organizational culture. For example, while resources (-0.148, $p < 0.01$), training (-0.122, $p < 0.01$), and tone at the top (-0.101, $p < 0.01$) show the strongest association with the *Collaborate* gap, organizational design (-0.099, $p < 0.01$) and feedback systems (-0.082, $p < 0.01$) are most strongly related to the *Compete* gap.

The findings indicate there is no "one size fits all" approach to embedding specific cultural values within audit firms. While regulations frequently emphasize the importance of establishing the right tone at the top, our analyses reveal that successful cultural implementation requires more than just leadership directives, and that other embedding mechanisms are more important than tone at the top. Depending on the specific cultural values that firms aim to instill, selecting the appropriate mix of embedding mechanisms is crucial. This tailored approach should ensure that the desired cultural attributes are effectively integrated across all levels of the organization.

6. Conclusion

The purpose of this study is to enhance our understanding of audit firm culture. Recent regulatory initiatives have increased the focus on changes in organizational culture as a driver of audit quality. Organizational culture is a broad, multi-dimensional concept, which can be challenging to measure and fully understand. However, without a basic understanding of organizational culture, it is challenging to improve it. We draw on the Competing Values Framework to provide a novel theoretical lens through which audit firm culture can be examined. Our findings reveal significant challenges in the communication and implementation of desired cultural values in audit firms, especially given the firms' hierarchical staff structures and multi-office locations.

The findings have implications for audit firms and their on-going culture initiatives. Effectively changing a culture requires an assessment of the status-quo of the culture (where are we at) versus the desired outcomes (where do we want to go). Our analyses suggest that in order assess this, the audit firms' leadership should listen to the lower ranks, as their perceptions of culture are different from the ones who ultimately decide on the firms' values (the partners). In addition, to effectively reduce the gap between the desired culture and the current culture, firms must not only follow up on their stated goals but also ensure the actual provision of necessary resources to achieve the desired cultural change. Firms should carefully select their embedding mechanisms based on the focus of their desired culture change, as not all embedding mechanisms are equally effective. Our evidence also suggests that "tone at the top" may be less important than previously thought.

References

Alberti, C. T., Bedard, J. C., Bik, O., & Vanstraelen, A. (2022). Audit firm culture: Recent developments and trends in the literature. *European Accounting Review, 31*(1), 59-109.

Andiola, L. M., Downey, D. H., & Westermann, K. D. (2020). Examining climate and culture in audit firms: Insights, practice implications, and future research directions. *Auditing: A Journal of Practice & Theory, 39*(4), 1-29.

Aobdia, D. (2020). The economic consequences of audit firms' quality control system deficiencies. *Management Science, 66*(7), 2883-2905.

Authority for Financial Markets (AFM). (2017). *Quality change of PIE audit firms too slow*. https://www.afm.nl/en/nieuws/2017/juni/kwaliteitslag-oob

Authority for Financial Markets (AFM). (2018). *Vulnerabilities in the structure of the audit sector*. https://www.afm.nl/en/nieuws/2018/nov/kwetsbaarheden-structuuraccountancysector

Bennis, W. 1968.*The Temporary Society*. Harper and Row: New York City.

Bol, J., Grabner, I., Haesebrouck, K., & Peecher, M.E. (2022). *Well-calibrated professional scepticism: Its benefits on auditor responsiveness to the risk of material misstatement and its roots in culture controls and auditor values.* (Working paper).

Burgoon, J. K. (1993). Interpersonal expectations, expectancy violations, and emotional communication. *Journal of language and social psychology*, *12*(1-2), 30-48.

Cameron, K.S., & Ettington, D.R. (1988). *The conceptual foundation of organizational culture.* (Working paper).

Cameron, K.S, & Quinn, R.E. (2006). *Diagnosing and changing organizational culture: Based on the competing values framework*. Jossey-Bass.

Cameron, K.S, & Quinn, R.E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework* (3rd ed.). Jossey-Bass.

Cameron, K.S., Quinn, R.E., DeGraff, J., & Thakor, A.V. (2014). *Competing values leadership: Creating value in organizations* (2nd ed.). Edward Elgar Publishing.

Carter, C., & Spence, C. (2014). Being a successful professional: An exploration of who makes partner in the Big 4. *Contemporary Accounting Research*, *31*(4), 949–981.

Chatman, J., & Choi, A. (2022). Measuring organizational culture: converging on definitions and approaches to advance the paradigm. In Newton, C. & Knight R. (Eds.), *Handbook of Research Methods for Organisational Culture*, Edward Elgar Publishing.

Choi, Y. S., Seo, M., Scott, D., & Martin, J. (2010). Validation of the organizational culture assessment instrument: An application of the Korean version. *Journal of sport management, 24*(2), 169-189.

Curtis, E., Humphrey, C., & Turley, W. S. (2016). Standards of innovation in auditing. *Auditing: A Journal of Practice & Theory, 35*(3), 75-98.

Denison, D.R., & Spreitzer, G.M. (1991). Organizational culture and organizational development: A competing values approach. *Research in Organizational Change and Development, 5*, 1-21.

Deshpandé, R., & Farley, J. U. (2004). Organizational culture, market orientation, innovativeness, and firm performance: an international research odyssey. *International Journal of research in Marketing, 21*(1), 3-22.

Duse, C., Duse, D., & Nemes, C. (2011). Influences of the organizational culture on academic management change and development in classical universities. *Proceedings Of The European Conference On Management, Leadership & Governance*, 116-122.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, *44*(2), 350-383.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, *71*(3), 500-507.

Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. *Journal of Applied Psychology*, *82*(5), 812.

Financial Reporting Council (FRC). (2018). *Audit culture thematic review: Firms' activities to establish, promote and embed a culture that is committed to delivering consistently high-quality audits*. https://www.frc.org.uk/getattachment/2f8d6070-e41b-4576-9905-4aeb7df8dd7e/Audit-Culture-Thematic-Review.pdf.

Financial Reporting Council. (2022). *Audit firm culture*. A report by Britianthinks for the Financial Reporting Council. June 2022. Available online at: https://media.frc.org.uk/documents/Audit_Firm_Culture_Report.pdf.

Francis, J., & P. Michas. (2013). The contagion effect of low-quality audits. *The Accounting Review, 88*(2), 521-552.

Francis, J., P. Michas, & M. Yu. (2013). Big Four office size and client restatements. *Contemporary Accounting Research, 30*(4), 1626-1661.

Francis, J., & M. Yu. (2009). The effect of Big Four office size on audit quality. *The Accounting Review, 84*(5), 1521-1552.

Gendron, Y., & Spira, L. F. (2009). What went wrong? The downfall of Arthur Andersen and the construction of controllability boundaries surrounding financial auditing. *Contemporary Accounting Research, 26*(4), 987–1027.

Giberson, T., Resick, C., Dickson, M., Mitchelson, J., Randall, K., & Clark, M. (2009). Leadership and organizational culture: Linking CEO characteristics to cultural values. *Journal of Business and Psychology, 24*(2), 123-137.

Gissel, J. L., & Johnstone, K. M. (2017). Information sharing during auditors' fraud brainstorming: Effects of psychological safety and auditor knowledge. *Auditing: A Journal of Practice & Theory, 36*(2), 87-110.

Hartnell, C.A., Kinicki, A.J., Lambert, L.S, Fugate, M, & Doyle Corner, P. (2016). Do similarities or differences between CEO leadership and organizational culture have a more positive effect on firm performance? A test of competing predictions. *Journal of Applied Psychology, 101*(6), 846-861.

Hartnell, C. A., Ou, A. Y., Kinicki, A, & Choi, D. (2016). A meta-analytic test of organizational culture’s association with elements of an organization’s system and its relative predictive validity on organizational outcomes. *Journal of Applied Psychology, 96*(4), 677–694.

Herrbach, O. (2001). Audit quality, auditor behaviour and the psychological contract. *European Accounting Review, 10*(4), 787-802.

International Auditing and Assurance Standards Board (IAASB). (2020). *Introduction to ISQM 1 – Quality management for firms that perform audits or reviews of financial statements, or other assurance or related services engagements*. https://www.ifac.org/system/files/publications/files/IAASB-ISQM-1-Fact-Sheet.pdf

Jenkins, J. G, Deis, D. R., Bedard, J. C., & Curtis, M. B., &. (2008). Risk monitoring and control in audit firms: A research synthesis. *Auditing: A Journal of Practice & Theory, 27*(1), 187-218.

Kalliath, T., Bluedorn, A, & Gillespie, D. 1999. A confirmatory factor analysis of the competing values instrument. *Educational and Psychological Measurement*, 56, 143-158.

Khazanchi, S., Lewis, M.W., & Boyer, K.K. (2007). Innovation-supportive culture: The impact of organizational values on process innovation. *Journal of Operations Management, 25*(4), 871-884.

Kornberger, M., Justesen, L., & Mouritsen, J. (2011). "When you make manager, we put a big mountain in front of you": An ethnography of managers in a Big 4 accounting firm. *Accounting, Organizations and Society, 36*(8), 514–533.

Kwan, P., and Walker, A. (2004). Validating the competing values model as a representation of organizational culture through inter-institutional comparisons. *Organizational Analysis, 12*(1), 21-37.

Lamond, D. (2003). The value of Quinn's competing values model in an Australian context. *Journal of Managerial Psychology*, *18*, 46–59.

McDermott, C.M., & Stock, G.N. (1999). Organizational culture and advanced manufacturing technology implementation. *Journal of Operations Management, 17*(5), 521–533.

Meyer, J.. Hecht, T., Gill, H, and L. Toplonytsky. 2010.Person–organization (culture) fit and employee commitment under conditions of organizational change: A longitudinal study. Journal of Vocational Behavior, 76(3), 458-473.

Miller, C. L., Fedor, D. B., & Ramsay, R. J. (2006). Effects of discussion of audit reviews on auditors' motivation and performance. *Behavioral Research in Accounting, 18*(1), 135-146.

Ministry of Finance. (2017). *Brief van de Minister van Financiën. Aan de Voorzitter van de Tweede Kamer der Staten-Generaal. Den Haag, 18 augustus 2017*. https://zoek.officielebekendmakingen.nl/kst-34677-7.html

Nederlandse Beroepsorganisatie van Accountants (NBA). (2014). *In het publiek belang. Maatregelen ter verbetering van de kwaliteit en onafhankelijkheid van de accountantscontrole*. https://www.nba.nl/globalassets/projecten/in-het-publiekbelang/in_het_publiek_belang_rapport_25_september_2014.pdf

Nelson, M. W., Proell, C. A., & Randel, A. E. (2016). Team-oriented leadership and auditors' willingness to raise audit issues. *The Accounting Review*, 91(6), 1781-1805.

Organizational Culture Assessment Instrument (OCAI). (2019). *OCAI theory and tools*. https://www.ocai-online.com/sites/default/files/node/files/2019-12/ocai_leaflet.pdf

Picard, C.-F., Durocher, S., & Gendron, Y. (2018). The colonization of public accounting firms by marketing expertise: Processes and consequences. *Auditing: A Journal of Practice & Theory*, *37*(1), 191–213.

Public Company Accounting Oversight Board PCAOB). (2018). *Inspections outlook for 2019*. https://pcaobus.org/Inspections/Documents/Inspections-Outlook-for-2019.pdf.

PCAOB. 2023. *PCAOB staff outline 2024 inspection priorities with focus on driving improvements in audit quality*. PCAOB. December 23, 2023. Available online at: https://pcaobus.org/news-events/news-releases/news-release-detail/pcaob-staff-outline-2024-inspection-priorities-with-focus-on-driving-improvements-in-audit-quality

O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, *34*(3), 487–516.

Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: Towards a competing values approach to organizational analysis. *Management Science*, *29*(3), 363–377.

Quinn, R.E., & Spreitzer, G.M. (1991). The psychometrics of the Competing Values culture instrument and an analysis of the impact of organizational culture on quality of life. *Research in Organizational Change and Development, 5*, 115-142.

Schneider, B., González-Romá, V., Ostroff, C., & West, M. A. (2017). Organizational climate and culture: Reflections on the history of the constructs in the Journal of Applied Psychology. *Journal of Applied Psychology, 102*(3), 468–482.

Ten Have, S., Ten Have, W., Stevens, F., van der Elst, M. and F. Pol Coyne (2003). *Key Management Models: What They Are and When You Use Them*. Upper Saddlewood River, NJ: Financial Times Press.

Tsui, A. S., Zhang, Z. X., Wang, H., Xin, K. R., & Wu, J. B. (2006). Unpacking the relationship between CEO leadership behavior and organizational culture. *The Leadership Quarterly*, *17*(2), 113-137.

Van der Stede, W. A., Young, S. M., & Chen, C. X. (2005). Assessing the quality of evidence in empirical management accounting research: The case of survey studies. *Accounting, Organizations and Society*, *30*(7-8), 655-684.

Van Vianen, A. E. M. (2000). Person-organization fit: The match between newcomers' and recruiters' preferences for organizational cultures. *Personnel Psychology, 53*, 113–149.

Verbeke, W., Volgering, M., & Hessels, M. (1998). Exploring the conceptual expansion within the field of organizational behavior: Organizational climate and organizational culture. Journal of Management Studies, 35, 303–329.

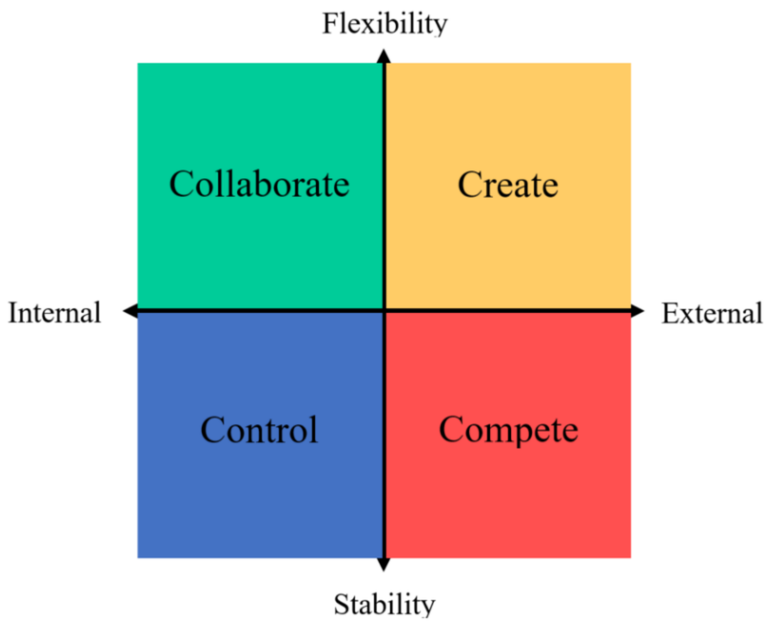
Westermann, K. D., Bedard, J. C., & Earley, C. E. (2015). Learning the "craft" of auditing: A dynamic view of auditors' on-the-job learning. *Contemporary Accounting Research, 32*(3), 864-896.

Yeung, A, Brickbank, J. & Ulrich, D. 1991. Organizational Culture and Human Resources Practices. *Research in Organizational Change and Development*, Vol. 5.

Zammuto, R., and Krakower, J. (1991). Quantitative and qualitative studies of organizational culture. *Research in Organizational Change and Development, 5*, 83-114.

Figure 1

The Competing Values Framework



Tables

Table 1: Sample Composition per Function Level

		Big 4	Non-Big 4	Total
Function Level	Partner	134	54	188
	Director	124	63	187
	Senior Manager	193	96	289
	Manager	282	106	388
	Senior Staff	520	323	843
	Staff	556	344	900
	Total	1,809	986	2,795
Offices	Number of Offices	44	48	92

Table 2: Descriptive Statistics Sample

	Partner n = 188		Director n = 187		Senior Manager n = 289		Manager n = 388
	Mean (Median)	SD	Mean (Median)	SD	Mean (Median)	SD	Mean (Median)
Age	49.2 (49.0)	6.30	44.7 (44.0)	7.07	40.1 (38.0)	7.55	33.3 (32.0)
Female	0.122		0.187		0.256		0.332
Function Tenure	11.4 (12.0)	6.86	5.49 (3.00)	5.90	4.47 (3.0)	5.73	1.79 (1.0)
Firm Tenure	22.4 (23.0)	9.21	16.4 (16.0)	9.90	13.3 (12.0)	8.68	7.80 (7.0)
Professional Experience	26.6 (26.0)	6.02	22.1 (21.0)	7.35	17.2 (15.0)	7.78	10.1 (9.00)

	Senior Staff n = 843		Staff n = 900		Overall n = 2,795	
	Mean (Median)	SD	Mean (Median)	SD	Mean (Median)	SD
Age	28.3 (28.0)	4.17	24.8 (24.0)	3.93	31.6 (28.0)	9.24
Female	0.352		0.376		0.321	
Function Tenure	0.96 (1.0)	1.84	0.76 (0)	2.45	2.38 (1.0)	4.65
Firm Tenure	4.14 (4.0)	2.89	1.23 (1.0)	2.93	6.70 (4.0)	8.29
Professional Experience	5.06 (4.0)	3.34	1.41 (1.0)	3.05	8.42 (5.0)	9.25

Table 3: CVF – Dominant Culture Type (Desired Culture)
Panel A: Comparison Big 4 – Non-Big 4 Firm

	Full Sample n = 2,795	**Big 4** n = 1,809	**Non-Big 4** n = 986	**Mean Difference Big 4 and Non-Big 4**
A. **Collaborate**	3.95	3.99	3.87	0.12***
B. **Create**	3.52	3.67	3.24	0.43***
C. **Compete**	3.69	3.85	3.40	0.45***
D. **Control**	3.89	3.94	3.79	0.15***

****, **, * denotes significance at 0.01, 0.05, 0.1 respectively (two-tailed).*

Panel B: Comparison Across Function Levels

	Partner n = 188	**Director** n = 187	**Senior Manager** n = 289	**Manager** n = 388	**Senior Staff** n = 843	**Staff** n = 900
Collaborate	4.15	3.98	3.90	3.86	3.83	4.07
Create	3.43	3.44	3.57	3.52	3.49	3.56
Compete	3.38	3.50	3.64	3.74	3.72	3.77
Control	3.76	3.82	3.88	3.89	3.88	3.93

Panel C: Differences Across Offices

	Office Size		
	(1) **Smaller**	(2) **Larger**	(2) - (1) **Mean Difference**
A. **Collaborate**	3.90	4.00	0.108***
B. **Create**	3.58	3.82	0.237***
C. **Compete**	3.69	3.85	0.16***
D. **Control**	3.89	3.94	0.05***

Note:
****, **, * denotes significance at 0.01, 0.05, 0.1 respectively (two-tailed).*
An office is defined as small (large) if its number of employees is below (equal or above) the median number of employees per office across all firms within the sample.

Table 4: Gap Analyses

Panel A: Desired Culture – Differences between Partners and Employees

Desired Culture - Firm Values	(1) **Partners** n =188	(2) **Employees** n = 2,607	(1) - (2) **Difference** Partner - Followers
A. **Collaborate**	4.13	3.94	0.19
B. **Create**	3.41	3.53	-0.12
C. **Compete**	3.32	3.72	-0.40
D. **Control**	3.74	3.90	-0.16
Overall Gap			**1.97**

Panel B: Culture Gap - Difference

	(1) **Desired Culture**	(2) **Current Culture**	(1) - (2) **Culture Gap**
A. **Collaborate**	4.14	3.63	0.50
B. **Create**	3.41	3.09	0.33
C. **Compete**	3.32	3.31	0.01
D. **Control**	3.74	3.58	0.16
Overall Culture Gap			2.16

Note: Desired Culture is based on the partners' desired culture and the current culture is based on the employees' perception of the current culture.

Table 5: Relationship between Culture Gaps and Other Work-Related Attitudes

	Psychological Safety		Perceived Organizational Support		Person-Organization Fit	
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	4.12***	4.00***	4.23***	4.039***	4.09***	3.923***
	(0.026)	(0.017)	(0.032)	(0.020)	(0.031)	(0.020)
Overall Culture Gap	**-0.15*****		**-0.25*****		**-0.21*****	
	(0.009)		(0.01)		(0.01)	
Culture Gaps						
Collaborate		**-0.396*****		**-0.613*****		**-0.499*****
		(0.018)		(0.021)		(0.022)
Create		**-0.026**		**-0.094*****		**-0.074*****
		(0.018)		(0.021)		(0.022)
Compete		**0.109*****		**0.104*****		**0.081*****
		(0.016)		(0.019)		(0.019)
Control		**-0.042****		**-0.073*****		**-0.101*****
		(0.021)		(0.025)		(0.025)
Control Variables						
Female	-0.06***	-0.08***	0.014		0.06**	0.042*
	(0.022)	(0.021)	(0.028)		(0.027)	(0.025)
Firm Tenure	0.002*	0.004***	-0.004**		0.001	0.003**
	(0.001)	(0.001)	(0.002)		(0.001)	(0.002)
Observations	2,591	2,591	2,591	2,591	2,591	2,591
Adj. R2	0.10	0.231	0.15	0.362	0.12	0.277
F-Statistic	96.03*** (df = 3; 2,587)	130.411*** (df = 6; 2,584)	151*** df = 3; 2,587)	244.272*** (df = 6; 2,584)	114.7*** (df = 3; 2,587)	164.622*** (df = 6; 2,584)

Note: ****, **, * denotes significance at 0.01, 0.05, 0.1 respectively (two-tailed). The results are robust to including firm controls.*

Table 6: Relationship between Embedding Mechanisms and Culture Gaps

		Culture Gaps - Separate Dimensions			
	Overall Gap	**Collaborate**	**Create**	**Compete**	**Control**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Intercept	4.817***	2.677***	2.283***	1.232***	1.842***
	(0.173)	(0.032)	(0.020)	(0.103)	(0.079)
Tone at the Top	**-0.107*** **	**-0.101*** **	**-0.060*** **	**-0.057*** **	**-0.064*** **
	(0.029)	(0.015)	(0.016)	(0.017)	(0.013)
Feedback	**-0.129*** **	**-0.063*** **	**-0.070*** **	**-0.082*** **	**-0.031*** **
	(0.023)	(0.012)	(0.013)	(0.014)	(0.012)
Resources	**-0.243*** **	**-0.148*** **	**-0.107*** **	**-0.030* **	**-0.124*** **
	(0.025)	(0.013)	(0.014)	(0.015)	(0.011)
Training	**-0.119*** **	**-0.122*** **	**-0.047*** **	**-0.008**	**-0.055*** **
	(0.03)	(0.015)	(0.014)	(0.018)	(0.014)
Organizational Design	**-0.043**	**-0.046*** **	**-0.027**	**-0.099*** **	**-0.045*** **
	(0.021)	(0.015)	(0.014)	(0.018)	(0.014)
Audit Procedures	**-0.055* **	**-0.057*** **	**-0.035** **	**-0.007**	**-0.107*** **
	(0.031)	(0.016)	(0.018)	(0.019)	(0.014)
Consultations	**-0.103*** **	**-0.089*** **	**-0.113*** **	**-0.050*** **	**-0.039*** **
	(0.028)	(0.014)	(0.016)	(0.017)	(0.014)
Control Variables					
Firm & Function Level	Yes	Yes	Yes	Yes	Yes
Observations	2,591	2,591	2,591	2,591	2,591
Adj. R2	0.20	0.377	0.21	0.21	0.29
F-Statistic (df = 19; 2571)	32.95***	83.66***	37.84***	37.84***	57.77***

Note: ***, **, * *denotes significance at 0.01, 0.05, 0.1 respectively (two-tailed).*

Appendix A

OCAI Survey Instrument (Cameron and Quinn, 2011)

In this section, we present you with 16 statements that relate to organizational culture and values.

For each statement, we ask you three different questions: (1) “How **important** is this to **your audit firm**?”, (2) “How **important** is this to **you**?”, and (3) “How much is **present** in your **day-to-day work setting**?”.

Please answer each statement using the scales provided below to rate each of these three questions.

____S

Statement 1: To emphasize trust, support, and concern for the employee.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
1.	How important is this to your audit firm?	1	2	3	4	5
2.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
3.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 2: To emphasize adaptability, creativity, and agility.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
4.	How important is this to your audit firm?	1	2	3	4	5
5.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
6.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 3: To emphasize achieving goals and engaging in competitive actions.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
7.	How important is this to your audit firm?	1	2	3	4	5
8.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
9.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 4: To emphasize efficient processes with clear rules and procedures and timeliness.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
10.	How important is this to your audit firm?	1	2	3	4	5
11.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
12.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 5: A leadership style that emphasizes teamwork, mentoring, and participation.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
13.	How important is this to your audit firm?	1	2	3	4	5
14.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
15.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 6: A leadership style that emphasizes individual risk-taking, innovation, freedom, and discretion.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
16.	How important is this to your audit firm?	1	2	3	4	5
17.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
18.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 7: A leadership style that emphasizes a hard-working, demanding, results-oriented approach.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
19.	How important is this to your audit firm?	1	2	3	4	5
20.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
21.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 8: A leadership style that emphasizes conformity, timeliness, with smooth-running efficiency.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
22.	How important is this to your audit firm?	1	2	3	4	5
23.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
24.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 9: A strategic emphasis on loyalty and mutual trust, commitment to the organization runs high.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
25.	How important is this to your audit firm?	1	2	3	4	5
26.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
27.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 10: A strategic emphasis on commitment to innovation, trying new things, and searching for new opportunities.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
28.	How important is this to your audit firm?	1	2	3	4	5
29.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
30.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 11: A strategic emphasis on competitive actions, winning in the marketplace, and hitting goals.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
31.	How important is this to your audit firm?	1	2	3	4	5
32.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
33.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 12: A strategic emphasis on efficiency, routinization and control, and stability.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
34.	How important is this to your audit firm?	1	2	3	4	5
35.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
36.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 13: To rely on the following criteria of success: employee development, being collaborative, while showing concern for people.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
37.	How important is this to your audit firm?	1	2	3	4	5
38.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
39.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 14: To rely on the following criteria of success: having the most unique or newest products, tools, and techniques, being an innovator, and on the cutting-edge.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
40.	How important is this to your audit firm?	1	2	3	4	5
41.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
42.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 15: To rely on the following criteria of success: achieving results, hitting stretch targets, and outpacing the competition.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
43.	How important is this to your audit firm?	1	2	3	4	5
44.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
45.	How much is present in your day-to-day work setting?	1	2	3	4	5

Statement 16: To rely on the following criteria of success: maintaining a smooth-running operation, with dependable delivery and efficiency.

		(1) Not at all important	(2) Somewhat important	(3) Moderately important	(4) Very important	(5) Extremely important
46.	How important is this to your audit firm?	1	2	3	4	5
47.	How important is this to you?	1	2	3	4	5

		(1) Rarely present	(2) Occasionally present	(3) Sometimes present	(4) Frequently present	(5) Constantly present
48.	How much is present in your day-to-day work setting?	1	2	3	4	5

Appendix B: Variable Definitions

Variable Name	Variable Definition (Source)
Competing Values Framework	Based on the Organizational Culture Assessment Instrument (OCAI) from Cameron and Quinn (2011). The OCAI includes 16 statements to assess the four dimensions of the CVF. Each dimension has four statements and the score for each dimension is the average of the four statements.
Collaborate	Collaborate focuses on fostering a supportive and family-like environment where teamwork, participation, and personal development are highly valued.
Compete	Compete stresses the importance of achievement, competitiveness, and goal orientation, aiming to excel in the marketplace through performance and results-driven strategies.
Create	Create emphasizes innovation, creativity, and readiness to adapt, encouraging risk-taking and dynamic responses to new opportunities.
Control	Control prioritizes stability, efficiency, and a structured approach through formalized procedures, clear lines of authority, and consistency in practices.
Desired Culture	For each CVF dimension, we calculate the desired culture. This includes the answer to the question "How important is this to your firm?".
Current Culture	For each CVF dimension, we calculate the current culture. This includes the answer to the question "How much is present in your day-to-day work setting?
Personal Values	For each CVF dimension, we calculate the personal values. This includes the answer to the question "How important is this to you?".
Gaps Identified in CVF	
Desired Gap	The difference between partners' perception of the desired culture (firm-specific) - the employee's perception of the desired culture.
Culture Gap	The difference between partners' perception of the desired culture (firm-specific) - the employee's perception of the current culture.
Overall Gap (both for Desired and Culture)	Sum of the absolute difference on each dimension.

Work-Related Attitudes	The final survey instrument included additional variables that were used in Table 5. All variables are based on multi-item scales and the final score is the average of all items.
Psychological Safety	Based on Edmonson (1999). "A shared belief held by members of a team that the team is safe for interpersonal risk taking."
Perceived Organizational Support	Based on Eisenberger et al.. (1986) and Eisenberger et al. (1997). " Perceived Organizational Support refers to employees' beliefs about how much the organization values their contributions and cares about their well-being."
Person-Organization Fit	Based on Harold et al. (2016). P-O fit reflects the degree to which an individual's characteristics, such as values, goals, and personality, align with the core cultures, values, and requirements of the organization.
Embedding Mechanisms	Alberti et al (2022) list different embedding mechanisms in their review. We included these embedding mechanisms and asked respondents to indicate "how much is present in your work setting?"
Tone at the Top	A tone at the top, established by day-to-day leadership practices, emphasizing a quality-oriented culture.
Feedback	The use of formal performance feedback and reward systems (praise and recognition, pay, and selection / promotion) that emphasize a quality-oriented culture.
Resources	Allocating the necessary resources (time budgets and appropriate staffing) to enable a quality-oriented culture.
Training	Training and development practices (incl. training on the job, coaching, and technical support) that emphasize a quality-oriented culture.
Organizational Design.	The firm's organizational design and structure (e.g., roles and responsibilities, different service lines, availability of learning and consultation units, geographical distance between offices) that reflect the firm's emphasis on a quality-oriented culture.

Audit Procedures	Audit processes and procedures (e.g., audit methodology, use of work technologies and specialists, audit support systems, communication with other teams and offices) that emphasize a quality-oriented culture.
Consultations & Collaborations	Emphasis in your firm on consultation and collaboration with other auditors and colleagues to instill a quality-oriented culture.
Demographic Variables	
Age	The age of the individual in number of years, based on archival data provided by the firm.
Female	Indicator variable where 1 represents female and 0 represents non-female, based on archival data provided by the firm.
Function Tenure	The number of years the auditor has worked in their current position, based on archival data provided by the firm.
Firm Tenure	The number of years the auditor has worked for their current audit firm, based on archival data provided by the firm.
Professional Experience	The number of years since the auditor entered the auditing profession, based on archival data or self-reported in the survey if archival data is not available.