# A Review of the Academic Literature of the Different Shades of Audit Quality

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#### 1. Introduction and summary of conclusions

This report provides key insights from the academic literature on the concept of audit quality. It does so by, first, exploring the historical development of key themes associated with the audit profession and audit quality, as depicted in the academic literature (section 2). Second, it conceptualizes audit quality by integrating the results of key archival and experimental review papers on audit quality to illuminate the different aspects and indicators of the concept (section 3). Third, it explores the views of the (mostly) qualitative literature on auditing, which usually does not employ the term 'audit quality', but also provides important academic insights into understanding audit practice (section 4).

Overall, our review leads us to the following overall conclusions:

- (a) There is a rich history of debates about the shortcomings of the audit profession, which resonate well with contemporary debates and attempts to change auditing (section 2);
- (b) Audit quality means different things to different people, which may lead to conflicts when these views meet or need to be reconciled (section 3);
- (c) Academic conceptualizations of audit quality recognize the multi-faceted nature of auditing, where attention needs to be paid to process, people and motivation, rather than an exclusive outcome-oriented focus on for example adverse outcomes (e.g., restatements, accounting scandals) (section 3);
- (d) Qualitative research recognizes the social aspects of audit practice and highlights that audit judgments need to be understood as a set of social interactions. This research also emphasizes the importance of organizational and contextual factors in determining auditor behavior (section 4).

Before proceeding we emphasize that 'audit quality' constitutes a rather broad topic in the auditing literature, and different streams tend to conceptualize it in vastly different manners. As such, it is a challenge to synthesize the literature in a compact and coherent way while at the same time sticking strictly to the respective study outcomes. Per definition, such a literature synthesis includes some level of interpretation by the authors to be informative.

### 2. Historical development of key themes associated with the audit profession and audit quality

Auditing as a self-regulated activity can be traced back to the emergence of the regulatory framework of financial reporting and securities regulation, which gave auditors a vital function on behalf of the state. In the United States (on which most of the research focuses), this occurred in 1933/4, when the Securities Acts were enacted following the stock market crash of 1929. Legislators adopted a model of "participatory regulation" (McCraw, 1984; also Parrish, 1970; Detzen, 2018), which entailed using private structures and incentives to public ends, meaning that auditors would fulfill the public task of controlling companies' financial statements. Auditing thus became a private-sector regulatory instrument, as the newly established Securities and Exchange Commission (SEC) required all financial statements of listed companies to be audited. While this conception installed auditing in the form as we know it today, doubts about the suitability of auditors for this task emerged early on, as then-Chairman of the SEC James Landis opined in the late 1930s that: "The impact of almost daily tilts with accountants, some of them called leaders in their professions, often leaves little doubt that their loyalties to management are stronger than their sense of responsibility to the investor."

Yet, initially, this regulatory framework was deemed more suitable than governmental audits. As Moore et al. (2006) outline, this setup relied strongly on the independence of auditors, so conflicts of interest, such as arising from financial relationships between auditor and client, were eliminated early on. Subsequently, independence in appearance rose in prominence, as investors needed to believe in the

value of an audit. Thus, Moore et al. (2006) allege that, over the decades, the audit profession has countered any crisis by making "cosmetic changes" to the appearance of independence (rather than independence in fact), which "has tended to increase the so-called expectations gap between (1) the expectation that companies with upbeat financial reports and "clean" audit opinions are free of the risk of short-term business failure and (2) the reality of sudden collapse among firms whose reports make them look healthy" (p. 14). According to the authors, this culminated in the accounting scandals of the early 2000s, and they go on to criticize the ensuing Sarbanes-Oxley-Act (SOX), which addressed many deficiencies in the accounting and audit framework, but, according to the authors, failed to ensure auditors' independence. [Note: Some of the aspects that Moore et al. (2006) criticize have been remedied by later regulation.]

Moore et al. (2006) belong to the more critical voices in the literature that have especially appeared following the large accounting scandals at Enron (2001) and WorldCom (2002), and the subsequent demise of Arthur Andersen, then part of the 'Big Five' audit firms. In the aftermath, academics engaged in a critical analysis of 'what went wrong', being somewhat divided over whether the glass is half-full or half-empty, as Carcello (2005) phrased it. Yet two historical studies stand out in terms of reviewing the history of the U.S. audit profession and detailing developments that changed auditing: Zeff (2003a; 2003b) and Wyatt (2004) largely agree in their analysis that the profession's values had gradually declined due to the following key developments beginning in the early 1970s:

- a) Audit markets became saturated, so competition increased considerably (also as instigated by legal changes in the U.S., i.e. the ban on advertising was repealed). This implied declining profits for the audit practices of the firms.
- b) To counter this trend, the firms began to grow their tax and consulting services, starting in the 1970s and especially in the 1980s/90s. This in turn emphasized revenue, growth, profitability, and global reach in the firms, thus instilling a business mindset into the firms, partners and audit staff, all at the expense of professional values.
- c) Likewise, this trend is said to have impaired auditors' independence, as firms could not 'afford' to lose clients. Audit partners thus became less willing to take a stand against their clients, which in turn faced increasing pressures from capital markets. Combined with the increased use of stock option-based compensation, these companies had strong incentives to show evergrowing earnings (Moore et al., 2006). This may have introduced a shift from focusing on what is morally right to what is technically legal, and companies increasingly resorted to managing their earnings (see also Levitt's (1998) speech on 'the numbers game'), with the implications also being felt in auditing.

These findings have been corroborated by other articles (see Humphrey, 2008, for a review), suggesting:

"it is management of the public accounting firms where the greatest problems may have resided. For example, firm compensation plans that emphasized revenue growth and client satisfaction more than professional skepticism and audit quality, management structures that allowed non-CPAs to serve as office managing partners, and the managerial mindset that viewed the firms as engaged in the professional services business rather than the accounting and auditing profession might have been the real cancer within the profession" (Carcello, 2005, p. 33).

#### Similarly,

"By the late 1980s the major CPA firms had taken the franchise handed down to them by the Securities Acts of the 1930s, and turned the audit into a commodity. The downward pressure on auditing costs led to relative reductions in salary and quality of audit staff, less substantive tests of details and more reliance on analytical review techniques, and factors that generally led to a lower-quality audit" (Imhoff, 2003, p. 120).

It is thus largely accepted in the academic literature that, over time, commercial values have appeared as a significant factor in the audit firms, where they co-exist (and may potentially conflict) with

professional values (Malsch and Gendron, 2013). This finding seems to hold not only in the U.S., where the previous studies have been conducted. In Canada, Suddaby et al. (2009, p. 409) found that this shift is most pronounced for higher-ranking auditors, who "tend to identify more with commercialistic values". In an interview study with Canadian and UK audit partners, Carter and Spence (2014, p. 968) likewise confirmed that, in the race to become an audit partner, "technical competence plays second fiddle to [generating new business]". Finally, in reflecting on their own extensive body of research, Cooper and Robson (2006, p. 433) assert: "In literally hundreds of interviews in the 1990s, in many countries and large accounting firms, we never heard an accountant refer to the public interest, and when issues of client management are discussed, the concern expressed in accounting firms is usually in terms of providing client service and finding opportunities for cross-selling." On the whole, these studies suggest that the shift towards commercial attitudes in audit firms seems to have been universal and taken place across different jurisdictions.

Another key insight from this literature stream is the fact that certain issues, problems and debates in auditing are recurring and seem to reflect tensions in the fundamental construction of the audit function (Humphrey, 2008). For example, Chandler and Edwards (1996) take up several issues identified in a 1992 discussion paper of the UK's Auditing Practices Board (APB), namely the role and scope of the audit, auditor independence, the audit report, competition between auditors, the level of litigation against auditors, audit regulation, and the lack of skills. They continue "to demonstrate the fact that auditing issues, almost identical to the above, were the subject of intellectual inquiry and public debate 100 years ago" (p. 4).

In a similar manner, Humphrey et al. (1992) study the history of the audit expectation gap in the UK, arguing that this gap has largely remained unchanged over time, even though the audit profession has repeatedly tried to educate the public (e.g., by explaining what they do, but also by changing the wording of the auditor's report) and shown willingness to address these concerns (by accepting additional responsibilities following regulatory changes). The paper concludes its historical analysis by arguing that the expectation gap is an inevitable feature of the audit function, and likely continues to exist since 'audit quality' is highly unobservable.

Notably, many of these studies refer to the situation before the Sarbanes-Oxley Act of 2002 and related regulatory changes across the globe, such as the introduction of audit oversight bodies (PCAOB, AFM, etc.), the separation of audit and non-audit services, mandatory partner/firm rotation, etc. Yet a range of recent studies have explored some of these changes, primarily the introduction of audit oversight bodies, finding that auditors always played a key role in how these bodies were set up (Malsch and Gendron, 2011; Canning and O'Dwyer, 2013; Hazgui and Gendron, 2015 – see also section 3.6).

In summary, this section has argued that many issues that today are considered "wicked problems" of auditing (MCA, 2016) are inherent in the audit function and have persisted in different forms throughout the decades. Whereas auditing was initially considered to be part of the regulatory solution to safeguard investors' trust in firms' financial statements, it soon was at the receiving end of regulation. For a long time, the audit profession managed to deflect fundamental regulatory intervention, thus preserving its status quo. As some of the more critical voices in the academic literature argue, this became more problematic over the decades, as commercialism increased in the firms, leading up to the accounting and audit scandals in the early 2000s. Since then, a range of regulatory changes have been enacted, but the academic literature suggests that some of the intricate dilemmas in auditing are difficult to resolve.

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<sup>&</sup>lt;sup>1</sup> Notably, this statement resonates with the sociological literature on the professions (e.g., Larson, 1977; MacDonald, 1995), which argues that professions pursue private objectives under a public interest argument (e.g., Sikka et al., 1989; Lee, 1995; Canning and O'Dwyer, 2001).

#### 3. Audit quality: A conceptualization based on the academic literature

Audit quality means different things to different people. This view is captured nicely by the Hindu parable of four blind men identifying attributes of an elephant (see Knechel et al., 2013, p. 386). As Knechel et al. (2013) argue, the conceptualization of audit quality reflects a similar challenge because different parties may have different points of focus: For example, while users of financial statements may focus on the absence of material misstatements in their understanding of audit quality, the auditor may define high audit quality as meeting the goals of their firm's audit methodology. This also becomes evident in Aobdia's (2019) comparison of academic proxies of audit quality with audit firms' internal reviews and PCAOB inspection findings. Only three out of fifteen academic measures of audit quality were significantly associated with audit process deficiencies as identified by practitioners, suggesting little agreement between these parties as to what constitutes audit quality. Similarly, Brivot et al. (2018) demonstrate two different conventions of audit quality: Auditors of public firms understand audit quality as resulting from a technically flawless audit, highly formalized judgment, a perfectly documented audit file, and the absence of inspection findings. By contrast, auditors of private firms point to the need of tailoring the audit to a client's need, a high degree of judgment, and the client's assessment that the audit has "added value". The authors spell out the tensions between these two conventions and argue that regulatory interventions might actually hurt audit quality.

Returning to the question of how to define audit quality, academic research on auditing began in earnest in the early 1980s with Linda DeAngelo's (1981) article on auditor size and audit quality. Her definition of audit quality is as follows (p. 186):

"The quality of audit services is defined to be the market-assessed joint probability that a given auditor will both (a) discover a breach in the client's accounting system, and (b) report the breach."

This definition is still widely used by most academics. It is considered useful because it incorporates both the element of auditor competence/ability (to "discover a breach") as well as auditor independence/objectivity (willingness to "report the breach"). More recent audit quality frameworks generally agree that the concept of audit quality is best understood by conceptualizing auditing as a *process* and examining factors belonging to the various elements of this process, often labeled *audit quality indicators* (Gaynor et al., 2016). In the following, we first summarize the four audit process categories (3.1- audit inputs, 3.2- audit process, 3.3- audit outputs, and 3.4- context) and their respective indicators, closely following Knechel et al. (2013). We also borrow from similar frameworks (i.e., Francis, 2011; DeFond and Zhang, 2014) to add relevant indicators to each of Knechel et al.'s (2013) category.<sup>3</sup> Moreover, we extend Knechel et al.'s (2013) conceptualization with two additional elements from DeFond and Zhang (2014). First, we add the element of client demand (section 3.5 in our overview) to illustrate how varying client demands have been found to affect audit quality. Second, we add the element of regulatory intervention (section 3.6 in our overview), to which we add some discussion from the qualitative academic literature. Our conceptualization of the resulting six categories is summarized in Figure 1.

<sup>&</sup>lt;sup>2</sup> Notably, Aobdia (2019) devotes an entire section (2.2.3) to the question whether PCAOB inspection findings are an appropriate measure of audit quality, concluding that they are relatively noisy.

<sup>&</sup>lt;sup>3</sup> DeFond and Zhang's (2014) element of 'auditor supply' overlaps with Knechel et al.'s (2013) element of 'audit inputs,' so we merge these two categories.

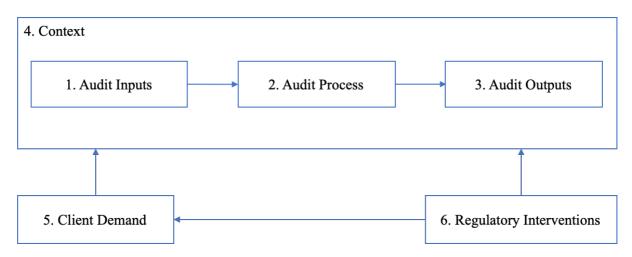


Figure 1: Conceptualization of audit quality (adapted from Knechel et al. (2013) and DeFond and Zhang (2014)

#### 3.1 Audit inputs

Each audit client is different ("idiosyncratic"), as is the level of risk associated with each engagement. Hence, the resources required to audit a given client and obtain reasonable assurance by definition vary per engagement. What goes into the audit (audit inputs or auditor supply) will obviously affect the quality of the audit. Knechel et al. (2013) primarily discuss auditor judgments under the category of audit inputs, and describe the major factors that have been found to (either adversely or positively) influence auditor judgment. DeFond and Zhang (2014) discuss auditor supply from the perspective of the archival literature.

- a. **Incentives, pressures, and motivation**: Academic research has found that auditors' judgments are influenced by a variety of pressures and incentives, such as the perceived risk of client loss, fee pressure, client retention incentives, economic benefits, and other client-related and engagement pressures (e.g., client or superior preferences; time or budget pressures). However, several countervailing, powerful incentives are in place, such as regulatory enforcement, potential reputation and litigation costs, all of which promote high audit quality. Archival research finds mixed evidence supporting the conjecture that higher litigation risk would be associated with higher audit fees (reflecting either effort, a risk premium, or both). There is also some evidence that auditors issue more going concern opinions to higher litigation risk clients. Similarly, there are some archival studies that support the prediction that reputation incentives affect audit quality.
- b. **Professional skepticism**: Recent judgment and decision-making research in auditing has focused on auditors' professional skepticism as an important audit quality indicator. Research indeed documents a positive association between professional skepticism and audit quality, such that greater skepticism results in greater willingness to confront a client, perform additional procedures, detection of fraud, higher-quality assessments of evidence, less trusting of a client, and more investment in high levels of audit effort. There is also extensive research effort into the determinants of higher (and lower) professional skepticism.
- c. **Knowledge and expertise**: Not surprisingly, auditor knowledge and expertise has been widely shown to positively impact audit quality. Such knowledge can be general (e.g., as reflected in higher audit ranks), but particularly client- and industry-specific knowledge have been found to matter for audit quality. There is extensive archival evidence that large (Big N) auditors "provide higher audit quality because their larger client base subjects them to greater reputation risk and less pressure to succumb to an individual client, and because their "deep pockets" subject them to higher litigation risk" (DeFond and Zhang 2014, p. 299).

#### 3.2 Audit process

An audit consists of several predefined phases, ranging from client acceptance, through audit planning and audit testing, to audit completion and reporting. Audit quality is contingent on the quality of auditor judgments during all these audit phases. Knechel et al. (2013) summarize what we know about auditor judgment and then discuss research findings for some of the most researched audit phases.

- a. **Judgment in the audit process**: Just as any human being, auditors are subject to heuristics and biases (e.g., hindsight, outcome biases, representativeness, etc.) in their decision-making, some of which can be detrimental for the quality of an audit. For example, experimental research has documented that auditors are susceptible to anchoring and adjustment biases, which means that they tend to focus on an initial condition (e.g., a management-provided number) but then insufficiently adjust that value when arriving at a judgment. Experience, expertise and familiarity have been found to mitigate many biases; and group decision making (of which auditing is a prime example, given its team-oriented approach) also helps. Also, accountability is a powerful mechanism of mitigating bias.
- b. **Audit production**: Experimental and archival research has established that a variety of factors influence the nature of the audit production process (i.e., nature and extent of testing, assignment of expert staff or specialists to the audit etc.), such as:
  - Degree of client complexity and risk
  - Earnings manipulation
  - Corporate governance
  - Disclosure policies
  - Auditor business risk
- c. Assessing risk: Adequately assessing inherent, control and audit risk lies at the heart of audit planning. Audit risk assessment is an important determinant of the nature, extent and timing of audit procedures, which in turn have a direct influence on the delivered audit quality. Prior experimental research demonstrates that the approach used to assess risks (e.g., holistic versus decomposed) results in different assessments. Research also shows that auditors sometimes struggle with properly modifying their audit plans in response to risk assessments.
- d. **Analytical procedures**: Analytical procedures are a powerful tool employed during multiple stages of the audit (i.e., planning, testing and completion). However, the application of analytical procedures is unfortunately susceptible to a number of judgment biases. For example, while auditors should develop their own explanations for unexpected fluctuations in account balances, they tend to anchor on "inherited" information (e.g., an incorrect, non-error explanation). Also, auditors may be susceptible to confirmation bias such that they will fail to dig deeper when information is consistent with their inherent expectations.
- e. **Obtaining and evaluating audit evidence**: A firm's audit methodology largely prescribes the way auditors should deal with uncertainty in an audit. For example, auditors have audit programs and decision support systems to their disposal to facilitate the workflow. Research has examined some potentially adverse effects of certain support system features. For example, standardized checklists can sometimes reduce judgment quality because auditors rely too much on such aids, even when professional judgment is required. Another complicating factor is the inherent uncertainty in the audit process due to high levels of subjectivity and unknown future events. An example is the assessment of materiality which requires complex, subjective judgments and estimates.
- f. **Auditor-client negotiations**: A large body of research has examined the negotiation between auditor and client, and the factors that lead to superior auditor negotiation performance, ultimately affecting audit quality. The following factors have been found to have an effect:
  - External conditions and constraints

- Interpersonal factors (e.g., auditor-client relationship)
- Auditor characteristics (e.g., accounting expertise, negotiation experience)
- Client characteristics (e.g., board conservatism)
- Litigation risk
- Regulatory environment
- Auditor tenure
- g. **Review and quality control**: Audit firms have powerful control mechanisms in place to ensure high audit quality, and much research demonstrates such positive effects. However, some research also points to adverse effects on judgment quality. For example, while the purpose of the review process is (1) to detect auditor errors and make timely corrections and (2) to increase auditor accountability (and hence effort), research finds that reviewees are sometimes biased when made aware of their reviewers' preferences.

#### 3.3 Audit outputs

While most of the research discussed thus far concerns mostly lab-experimental efforts to examine audit quality by looking at auditor judgments, there is considerable archival research which examines audit outcomes by looking at a variety of proxies. The overall problem is that it is very difficult to objectively assess audit quality outcomes, which is why proxies are necessary.

- a. Audit failures: Binary indicators to proxy for extreme, negative audit quality outcomes (or audit failures) are (1) the presence of an accounting restatement, (2) litigation against an auditor, (3) regulator (e.g., SEC) enforcement action against an auditor or audit firm, and, more recently, oversight inspection results. In summary, the overall evidence points to a very low audit failure rate. However, it is unclear how high the "true" failure rate is, since not all cases are reasonably observable (e.g., the majority of lawsuits against auditors are settled outside the court; the SEC may not have the resources to pursue all cases). As a result, Francis (2011) recommends thinking about audit quality as a continuum, rather than a binary concept.
- b. **Financial reporting quality**: One way to measure audit quality on a more continuous scale is to turn to the client's audited financial statements. The premise is that the production of the financial statements is a joint product by clients and their auditors; hence their quality also reflects the quality exerted by the auditor. There is an abundance of research using earnings quality (employing various discretionary accruals models) as a measure for audit quality, with the argument that a high-quality auditor is more likely to restrict aggressive accounting than a lower-quality auditor. Audit firm size and auditor specialization have consistently been found to affect audit quality when proxied by financial reporting quality.
- c. **Audit reports**: Another way to assess audit quality is to examine the audit report issued by the audit firm. While most report modifications are rare, researchers have primarily turned to the issuance of going-concern audit reports. One stream of research classifies the issuance of a going-concern opinion as an indication of higher audit quality (and, more importantly, the dimension of auditor independence) and has examined a battery of factors that influence such reporting behavior. Another line of research focuses on going concern opinion accuracy, distinguishing between type I errors (opinion issued with no subsequent bankruptcy) and type II errors (no opinion issued despite subsequent bankruptcy; this is sometimes labeled an audit failure). Interestingly, particularly type II error rates tend to be high (for the period 1995-2002 around 55 percent, according to Lennox, 1999), although error rates have decreased after SOX.

#### 3.4 Context

Knechel et al. (2013) group a number of additional quality indicators under the header of "context".

a. **Audit partner compensation**: Limited evidence suggests that partner compensation (e.g., client significance) affects audit quality, but the direction of the relation is not consistent across studies.

- b. **Audit and non-audit fees**: First, evidence suggests that both *abnormally* high and low audit fees are associated with lower audit quality. Second, an abundance of research has examined whether non-audit services create an economic bond between auditors and clients, impairing independence and audit quality. However, the empirical evidence regarding *non-audit fees* is mixed, with many studies, finding either no relationship or a positive association, suggesting a "knowledge spillover", overruling potential independence concerns. Third, research suggests that larger (Big N) audit firms and industry specialists are able to command an *audit fee premium*, which in turn leads to superior audit quality.
- c. **Auditor tenure**: Similar to the case of non-audit fees, the results with respect to auditor tenure are mixed, documenting both a positive and negative relation between audit firm/partner tenure and audit quality.
- d. **Market perceptions of audit quality**: While most research discussed in this section concerns actual audit quality, there is also a stream of literature examining market perceptions of audit quality. In summary, evidence suggests that the market rewards companies that employ higher quality auditors. There is also evidence that users will respond to some of the factors raised as problematic by regulators (e.g., non-audit services and tenure), while their actual effect on audit quality is limited.

#### 3.5 Client demand

While the elements discussed thus far concern the drivers and outcomes of audit quality found on the side of the auditor, a range of studies have examined the exogenous demand for auditing. In theory, "the value of auditing arises from its ability to assure that the financial statements faithfully reflect the client's underlying economics. These assurances reduce information risk, which ultimately improves resource allocation efficiency, including contracting efficiency" (DeFond and Zhang, 2014, p. 292). Examining under what circumstances clients demand higher audit quality suggests that agency costs explain the choice of audit quality; hence, higher agency conflicts increase the demand for greater assurance by a third party. Another stream of research finds that strong corporate governance (e.g., independent and high expert audit committees) demand higher audit quality.

Client demand for audit quality was clearly affected by the introduction of SOX. For example, stricter audit committee requirements (e.g., increased independence from client management) changed how auditors were selected, retained and fired. Research finds that more independent audit committees indeed tend to hire industry specialists, pay higher audit fees, purchase less non-audit services, and hire fewer former audit employees.

While auditing is mandated for a large range of clients, DeFond and Zhang (2014) examine whether auditing adds value in the *absence* of regulation. Research in this regard indeed finds that voluntary audits add value by reducing the cost of debt, improving credit ratings, reducing the number of audit adjustments, and generally signal higher financial reporting quality (a signaling value that is lost when auditing is mandatory). Another stream of research examines market reactions to going concern opinions, suggesting that indeed such audit reporting is valued by the market, which again suggests that auditing has value for the client. The same holds for evidence from market reactions to internal control opinions (in the U.S.) and auditor changes.

#### 3.6 Regulatory intervention

The regulation of audit markets intends to improve audit quality by aligning auditors' and clients' market-based incentives and competencies (DeFond and Zhang, 2014). As discussed in Section 2, throughout history, regulators have intervened typically following high profile audit failures, when market-based incentives and competencies were perceived to have failed (DeFond and Francis, 2005). A fundamental question is whether regulatory intervention improves audit quality.

Academic literature has discussed three key aspects in the audit sector that have been criticized or subject to reform efforts: (a) auditor independence, (b) the role of audit committees, and (c) audit oversight and inspections.

- a. **Auditor independence** entails avoiding, or mitigating, the conflicts of interest that auditors are subject to. Gramling et al. (2010) review the academic (largely archival) literature on auditor independence, finding that many of these studies do not support the effectiveness of the requirements in recent reforms to enhance auditors' independence in fact. On non-audit services as well as audit tenure, both Gramling et al. (2010) and DeFond and Zhang (2014) make the point that most research finds that neither provision of non-audit services nor excessive auditor tenure impair audit quality, but may even improve it, due to knowledge spillover and expertise effects. While literature is not very extensive, Gramling et al. (2010) confirm that regulatory changes have achieved to increase investors' assessment of auditors' independence (i.e., in appearance).
- b. The position of audit clients' **audit committees** has also been strengthened by recent reforms, such that these committees now formally appoint the auditor in companies, which has direct consequences for client demand (see section 3.5). While a range of studies have documented the positive impact of effective audit committees on *financial reporting* quality (Cohen et al., 2007), the relation with auditing is more ambiguous (Cohen et al., 2010; Dhaliwal et al., 2015), although investors seem to value a strong audit committee that takes its auditor appointment powers seriously (Gold et al., 2018). Of note is the field study by Fiolleau et al. (2013), who investigated a company's auditor selection decision, finding that management remains the dominant party that hires the auditor, whereas the audit committee takes on a ceremonial role, but has little involvement in the appointment decision. For the authors, the findings challenge recent reform proposals, as the auditor selection process remains dominated by management, thus "potentially rendering proposed audit firm rotation ineffective" (p. 867).
- c. A major change in the audit framework occurred when, starting with the PCAOB in 2002, audit oversight bodies were installed that conducted independent inspections of audit files. Early archival findings as to the efficacy of the PCAOB inspection regime are somewhat inconclusive (e.g., Gunny and Zhang, 2013) and nonexistent particularly for larger audit firms (DeFond and Zhang, 2014), while more recent studies provide more promising evidence that firms consistently improve their quality in response to inspections (e.g., Lamoreaux, 2016).

Notably, however, markets and decision-makers have remained skeptical of the audit profession as well as such inspections (Löhlein, 2016). DeFond and Zhang (2014) also provide some critical views on inspections, referring to inspectors possibly lacking current auditing expertise and being under pressure to identify problems (see also Aobdia, 2019). They further emphasize that the threat of inspections drove nearly half of all small audit firms to exit the audit market (a similar trend as currently observed in the Netherlands). Recent qualitative studies raise some further concerns as to the role of such inspection bodies.<sup>4</sup> For example, according to Johnson et al. (2018), auditors acknowledge a changed audit climate, in which a powerful regulator induces a strong desire to have 'clean' inspection reports, which changes audit procedures and firms' quality control. Meanwhile, auditors do not have high trust in the regulator, but are skeptical of the inspection process, resulting in an overall antagonistic environment, where, given the PCAOB's high coercive power, auditors comply due to fear of enforcement, instead of agreeing with the regulator's views. Westermann et al. (2019) corroborates these findings, adding that the process "has created excessive stress and tension, beyond budget and fee pressures, which some auditors perceive as affecting the pool of talented auditors that firms may be able to attract and retain in the future" (p. 1).

Further, Humphrey et al. (2011) make several critical points about the potential efficacy of audit regulation, in the context of the EU's Green Paper on audit reform. First, they argue that regulation may make audit practice overly standardized, which takes away the ability to adjust audit programs to client needs (see also Knechel, 2010). It also reduces firms' ability to compete on the basis of audit methodology, and makes auditing overly rules-based and complex, thus introducing a focus on

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<sup>&</sup>lt;sup>4</sup> Notably though this research is so far limited to the U.S.' PCAOB.

compliance with rules and procedures ('tick-the-box-mentality'). Second, recent regulatory reforms seem to assume that market forces and regulation work together to improve auditing. However, this assumption disregards the impact of regulatory changes on how auditing is exercised (i.e., it is unclear how a particular reform might affect the actual judgments and practices of auditors). It also fails to acknowledge the contradictory claim of some reform proposals (e.g., if excessive competition is a problem in the audit sector (see section 1), why would reforms want to introduce even more competition between audit firms?). Finally, it places unwarranted trust in regulation ('regulation works, auditing does not'), even though little is known about the nature and effectiveness of regulatory practices and regimes, and the extent to which it has actually been able to improve audit practice.<sup>5</sup> Humphrey et al. (2011) conclude that regulatory reforms should carefully assess the impact on audit practice and thus not be selected based on policy momentum.

It thus seems that regulatory intervention tends to have an uncertain outcome for audit quality, mainly for three reasons. First, regulation is the outcome of a political process, which is influenced by a range of parties who participate and are involved in this regulation, as well as its implementation and interpretation in practice (Cooper and Robson, 2006). Second, even the legal backing of government institutions does not mean that reform initiatives work as intended, as such institutions may lack the legitimacy or authority to effectively regulate (Black, 2008; Canning and O'Dwyer, 2016). Third, there are often practical workarounds that erode regulatory changes, such as in the case of auditor appointments, which de jure lies with audit committees, but de facto remains with corporate management (Fiolleau et al., 2013). Beyond these findings, the literature reveals a further problem: While there are many ideas for reforms, it remains unclear how these initiatives affect audit markets and audit practice. The key risk seems to be that such initiatives curtail the professional judgment and discretion of auditors, which the academic literature considers as key elements of audit quality (see section 3.2). Finally, research on regulatory inspections highlights that inspection findings may also be due to differing views on audit quality, such that adverse audit outcomes may not be a sufficiently strong reason for further regulatory interventions in auditing.

#### 3.7 Conclusion

In summary, this section has demonstrated the multi-faceted nature of audit quality, implying that there is no one superior way to measure and assess it. Notably, the academic literature consistently highlights a procedural conceptualization of audit quality, and we concur with Knechel et al.'s (2013, p. 407) conclusion that "a 'good' audit is one where there is execution of a well-designed audit process by properly motivated and trained auditors who understand the inherent uncertainty of the audit and appropriately adjust to the unique conditions of the client." In addition, we note that audit quality is not solely influenced by the auditor and the audit firm, but also by contextual factors (i.e., client, regulation, etc.). While outside the scope of our review, we note that regulatory bodies and institutions around the world have come up with their own audit quality frameworks (e.g., IAASB, 2014; PCAOB, 2015; NBA, 2017), which consistently recognize the different shades and process orientation of audit quality. Yet the question remains whether and to what extent such a multifaceted approach is indeed reflected in the work of regulators: Not only does Aobdia (2019) conclude that PCAOB findings are a noisy measure of audit quality, academic research also documents that regulators and inspection bodies focus on different aspects of audit quality than auditors (see section 3.6). As such, concurrent debates on auditing related to the different views of the respective parties on what constitutes audit quality inevitably create conflict.

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<sup>&</sup>lt;sup>5</sup> For example, DeFond and Zhang (2014) review the literature on the effects of SOX on audit quality, concluding that these are ambiguous. On the one hand, audit fees seem to have increased overall, which could indicate higher audit quality, but could also be the result of additional compliance efforts induced by SOX. On the other hand, several studies have documented a shift in client market share from Big 4 to non-Big 4 auditors, potentially suggesting a shift to lower audit quality. However, this shift can also be explained by capacity constraints imposed primarily on Big 4 auditors due to additional internal control audit work (Section 404).

#### 4. Qualitative research in auditing

In this final section, we explore insights from the qualitative auditing literature, as requested in our research assignment. This literature stream tends not to use the term "audit quality", but understands auditing as a social practice, which is influenced by social interactions (section 4.1), and examines how individual auditors are embedded in the organizational context of audit firms (section 4.2).

#### 4.1. Auditing as a social practice

While somewhat dated, Power's (2003) highly relevant review study outlines key research themes in this area, which "question rationalized accounts of the audit judgement process, and [...] explore the complex 'back stage' of practice in its social and organizational context" (pp. 379-80). In his review, Power (2003) posits that the legitimacy of auditing depends on such practices.

#### a. The audit process: Structure versus judgment

There is a perennial debate in auditing as to how much practice should be structured (i.e., standardized) and how much judgment should be given to auditors. Over the years, audit firms have attempted to structure the audit process into a set of routines, which in turn has minimized the potential of individual auditors to exercise professional judgment. This debate between structure and judgment strongly affects audit programs, where firms "try to balance a formal, defendable, economic and manageable structure for the audit process with the autonomy of auditor judgment" (Power, 2003, p. 382). Increased structure may simplify quality control and help in litigation cases, but the downside is that it constrains judgment. A key example from the literature is the historical emergence of statistical sampling, which has been shown to not only make audit practice more academic and efficient (Carpenter and Dirsmith, 1993). It has also shifted certain responsibilities to the audit client, and thus contributed to widening the expectation gap.

Related to this is the question of understanding auditing as a business, where cost controls and quality objectives push audit firms in different directions. This trade-off is visible in time budgeting, planning and reporting processes, and is embedded in the management control system of the firms, where it is (invisibly) imposed on individual auditors and resolved in situ (i.e. on individual audit engagements). Arguably, this has given rise to a business risk audit approach, which can be viewed and analyzed from this perspective (Knechel 2007; Robson et al., 2007).

#### b. Audit practice as "interaction rituals"

Auditing can also be viewed from a micro-perspective as a set of practices and routines. This literature begins with Pentland's (1993) analysis of auditing as a 'ritual', which entails "any collective activity that has the effect of maintaining social order, no matter how commonplace or mundane it may seem" (p. 606). Such rituals may be carefully calculated and highly rationalized and are commonly accepted, as they have arisen based on the experience of individuals with shared objectives and obligations. This understanding points to the affective or emotional dimension of auditing, which understands audit practice as being constituted of micro-rituals that, once completed, give 'comfort' to the auditor. This comfort is "a signal that hunch and intuition are formed from repeated collective interactions within the audit team", which over time teaches auditors the intuitions necessary for their work (Power, 2003, p. 385). Team interactions, audit procedures, individual judgments, documentation and work papers, as well as 'signing off' are all elements of audit practice that go beyond rational cognition, but are essentially social interactions that establish 'order' and 'stability', and produce legitimacy at the micro-level.<sup>6</sup>

<sup>6</sup> Later studies have extended this argument, suggesting that auditing is about relieving the auditor's discomfort (Carrington and Catasus, 2007) and that auditors' conclusions are driven by fear that is resolved throughout the audit process (Guénin-Paracini et al., 2014).

Power (2003, p. 389) also relates these insights to the concept of audit quality, arguing that "audit quality is obscure *to auditors themselves*. It is not analytically clear what 'good auditing' really is, since outputs are sufficiently ambiguous for auditors themselves to be unsure. Auditors do not know if they are good auditors or not, however much effort they put in and signal to outsiders. They often cannot be sure whether the audit has 'failed' or not, whatever failure means, despite their best procedural efforts. And, as we have seen above, the audit process is permeated by hunch and intuition, despite projects to introduce more formal structure. These intuitions produce an order of some kind, an order which is relied upon both by auditors themselves and by others."

For Power (2003, p. 389), "audit quality is defined procedurally rather than in terms of the constantly asserted but elusive output of added assurance. From this point of view, the quality of audit resides only in part in the judgement processes of individual auditors; it is also a function of what gets accepted, stabilized and institutionalized as a way of doing things."

Finally, he maintains that this literature suggests "that auditing researchers should treat all questions of audit knowledge as social questions, i.e. as questions about communities, rules and authority, and that agreement about what is effective is coextensive with defining a community of practitioners. Auditors appear to, and are able to, engage in cognitive acts because certain practices have become accepted and they have been endowed with authority to do so" (p. 390).

#### 4.2. Individual auditors and the organizational context of audit firms

Another (qualitative) literature stream outlines the ways in which the organizational context of audit firms affects the behavior of individual auditors and conceptions of what it means to be a professional. Cooper and Robson (2006) have reviewed this literature stream, but some important studies have appeared since then, which are added below.

Much of this literature is about how newcomers are socialized into audit firms, i.e. how they are made familiar with what is expected of them by the environment they just joined (e.g., Anderson-Gough et al, 1998; 2000; 2001; Grey, 1998). Yet, rather than focusing on technical knowledge and audit procedures, audit trainees largely describe what it means to be a professional in terms of demeanor, conduct and appearance. Studies have concluded that professionalism is largely constructed through dress codes and appearance, enacting a certain 'character', or particular discourses (about careers, time management, and clients). These studies have also documented that most knowledge is learned on-the-job, rather than in the classroom (Westermann et al., 2015), and that this learning is "similar to learning to riding a bike, i.e. not an intellectual process" (Power, 1991, p. 340). As a result, the audit credential is considered a "hurdle" that needs to be passed to become an audit professional, rather than conveying essential skills necessary in practice. As Power (1991, p. 346) argues, audit trainees hold "generalized attitudes of irony towards the 'knowledge' content [which] coexist with a recognition that self-interest requires a commitment to play the game and pass [the exams]."

On a manager and partner level, there are fewer studies, but the existing ones have argued that, once auditors advance through the ranks, they become aware of other aspects of audit practice, which need to be incorporated in their understanding of their work. Essentially, managers begin to realize that they are part of a complex network that needs to be navigated and managed, including supervision of juniors, interactions with clients, but also being an essential link for the partners' work (Kornberger et al., 2011). This network, however, is temporary and managers are "in a constant repair mode to minimize potential damage and to ensure a smooth flow of information across the network" (p. 531).

Audit partners, on the other hand, are considered "organizational entrepreneurs", which implies that they need to go beyond technical expertise (which is mostly left to subordinates) and, instead, "sell services and grow the business" (Carter and Spence, 2014, p. 976). This entails a varied skillset that revolves around successfully managing a client portfolio and adequately representing the firm. The processes through which partners learn these skills have been documented to be informal communication, mentoring and management practices, which, as techniques of control, "transform

professionals into disciplined and self-disciplining organizational members whose work goals, language, and lifestyle come to reflect the imperatives of the organization" (Covaleski et al., 1998, p. 293; similarly: Dirsmith and Covaleski, 1985; Dirsmith et al., 1997). This results in a conception of 'professional autonomy' that auditors want to maintain even in changing contexts, as a study of Dutch mid-tier audit firms documents (Lander et al., 2013).

It is thus the organizational environment that is said to exert some level of control over audit firm members and that transforms auditors into a certain type of professional. As a result, the firms weave "a web of control" around organizational members (Ladva and Andrew, 2014), which professionals comply with, as they want to gain status and recognition and thus readily adapt to the rules of the game (Lupu and Empson, 2015), despite somewhat ambivalent attitudes towards the firms that include distancing process, but essentially entail compliance with firm values (Kosmala and Herrbach, 2006).

#### 4.3 Conclusions

In summary, this section briefly outlined two research streams in the qualitative auditing literature that might have a bearing on audit quality. On the one hand, it is suggested that auditing is a social practice that consists of human interactions in a particular social context. In their daily practice, auditors face the difficult task of balancing structure against judgment, as firm policies and procedures may dictate one thing, while their professional judgment may guide them elsewhere. Likewise, there is an affective dimension of audit practice in that auditors are guided by a set of routine interactions that they have come to appreciate as part of creating sufficient 'comfort' to approve a client's financial statements. On the other hand, the qualitative literature points to the organizational context of auditing, where firms exert a strong influence on auditors' conceptions of themselves as professionals. That is, the values, rules and norms embedded in the audit firms are conveyed to individual auditors by a range of (more or less subtle) social control mechanisms and are expected to be adopted. Compliance with these norms has been documented to have a strong impact on auditors' career trajectories. In sum, this literature argues that the social and organizational context of auditing matters and has a strong impact on the work of auditors, and thus on audit quality, however defined.

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<sup>&</sup>lt;sup>7</sup> As an aside, this typical professional tends to be a male auditor, as research has revealed a gender domination in the audit firms (Anderson-Gough et al., 2005) and that "the barriers to entry and ascension [to partner level] appear to be all but insurmountable for females and ethnic minorities" (Carter and Spence, 2014, p. 977), and that even well-intended diversity programs "actually reinforced gender barriers" (Kornberger et al., 2010, p. 775).

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