



The contribution of attitude, conduct and culture to the focus on quality of the audit team

Suggestions for audit firms based on an assessment of the Big 4
audit firms



Read the report

The Dutch Authority for the Financial Markets

The AFM is committed to promoting fair and transparent financial markets.

As an independent market conduct authority, we contribute to a sustainable financial system and prosperity in the Netherlands.

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1. Introduction

The AFM has conducted an assessment of the Big 4 audit firms to identify the factors that encourage or hinder an audit team's focus on quality. The AFM's intention is to encourage a focus on quality and accelerate this development where necessary. The AFM urges the sector to continue to progress in its commitment to changing attitude, conduct and culture, and to use the findings of the assessment for this purpose.

Until 2020, the AFM will continue to intervene with the aim of encouraging the Big 4 to implement the changes and put sustainable safeguards in place with respect to the quality of statutory audits, and to maintain their focus and commitment in this effort. The AFM expects to see that the quality of statutory audits is sustainably safeguarded by 2020.

The AFM applies a broad range of supervisory instruments to contribute to a justified restoration of confidence in auditors, audit firms and the audit opinion. The AFM has issued various reports on the quality of statutory audits^[1]. Based on its most recent report on quality, the AFM is of the opinion that the implementation of changes to sustainably improve the quality of audits at PIE audit firms is proceeding too slowly^[2]. The pace of this change towards a quality-oriented culture however varies from one audit firm to another. The AFM applies a range of supervisory instruments incorporating multiple perspectives to encourage a sustainable strengthening of the quality of statutory audits. Structure, conduct and organisational culture have a complex interaction. In 2015 and 2017, the AFM conducted assessments of the implementation and embedding of change processes at audit firms. The AFM conducted a preliminary study of the vulnerabilities in the structure of the audit sector in 2018.^[4] In May 2019, the AFM started an assessment of progress of change towards a quality-oriented culture, the quality circle and the quality safeguards at the Big 4 audit firms.

In this publication, the AFM reports on its assessment of the contribution of attitude, conduct and culture to a focus on quality as experienced by audit teams at the Big 4 audit firms. The AFM sees a focus on quality by audit team members as a major condition for improving quality, but this is not a guarantee of the quality of statutory audits in itself. Other important conditions for the quality of statutory audits are not addressed in this assessment. This assessment contributes to a more complete assessment of the sector in combination with the AFM's other reviews. The quality of statutory audits at the PIE audit firms will be measured again from 2020.

^[1] All the public review reports are available on the AFM website:

<https://www.afm.nl/en/professionals/doelgroepen/accountantsorganisaties/publicaties/rapporten>

^[2] AFM report 'Quality at PIE audit firms reviewed' of 28 June 2017:

<https://www.afm.nl/en/professionals/nieuws/2017/juni/kwaliteitslag-oob>

^[4] AFM report 'Vulnerabilities in the structure of the audit sector' of 21 November 2018:

<https://www.afm.nl/en/professionals/nieuws/2018/nov/kwetsbaarheden-structuur-accountancysector>.

Sustainable improvement of the quality of the statutory audits

Reviews of the quality of statutory audits (2014, 2017)

Progress of change

- The contribution of attitude, conduct and culture to the focus on quality of the audit team (2019)
- Quality of PIE audit firms reviewed (2017)
- Dashboard 2015 - Change and Improvement Measures (2015)

The structure of the sector

- Preliminary study - Vulnerabilities in the structure of the audit sector (2018)

The audit sector is working on improving the quality of statutory audits. In order to achieve this, the audit firms are also working towards a culture that is focused on prioritising the public interest in the performance of high-quality statutory audits. Changes in the attitude and conduct of statutory auditors¹ and employees are essential preconditions for embedding a focus on quality at the audit firm and in the audit team. The Big 4 audit firms have taken various initiatives to bring about a focus on quality in their attitude, conduct and culture.

The AFM asked audit team members about the contribution of attitude, conduct and culture to a focus on quality among audit teams at the Big 4 audit firms. The respondents in the assessment are audit team members involved in 143 selected statutory audits who were consulted in interviews and through an online survey. This self-assessment involved attention to a wide range of factors, such as the example set by the conduct of statutory auditors, pressure of work, time for reflection and the critical attitude of the audit team. The findings of the assessment give an overview of what is important for a focus on quality by the audit team.

Based on the findings of the assessment, the AFM has suggested priorities for the organisations concerned. The respondents were asked to describe the extent to which factors important for a focus on quality are embraced by the audit firm. This gives an idea of the focus on quality among audit teams at the Big 4 audit firms. The experience of the respondents is that the Big 4 audit firms devote extensive attention to a focus on quality in their organisations. The respondents say that the efforts of the organisation are having positive effects on the importance that they attach to quality. Priorities have been defined on the basis of the findings that can be given a place in the policy and change processes at the audit firms involved in the assessment.

Users of this publication can use the findings of the assessment to promote a focus on quality among audit teams. The audit firms concerned can make further progress with their own findings. For audit firms not involved in the assessment, we provide a method to facilitate their own assessment. A greater focus on quality with respect to attitude, conduct and culture cannot be achieved by using checklists. The aim of the method is rather to help audit firms define their own priorities. We have accordingly prepared a step-by-step plan that can be used to apply the findings of the assessment to new or existing policies at the audit firm.

¹A statutory auditor is the auditor who signs off on the statutory audit and is often also a partner in the governance structure of the audit firm.

What is the value of the assessment for our supervision? The assessment considers the contribution of more than 20 factors to a focus on quality among audit teams. A total of 143 statutory audits were assessed, involving more than 1,000 audit team members and 143 statutory auditors. The assessment thus provides a broad picture of the contribution of these factors to a focus on quality at the Big 4 audit firms. The contribution from the perspective of attitude, conduct and culture to a focus on quality is assessed by means of interviews and an online survey. The assessment is limited in the sense that the respondents used their own definitions of quality when answering the questions, and they may have offered answers that they considered to be socially desirable. We attempted to reduce this tendency towards socially desirable responses by combining various assessment methodologies and using a large assessment group. The AFM urges the sector to continue its progress towards a quality-oriented culture and to learn lessons from the findings of this assessment.

2. Quality orientation at the Big 4 audit firms

This section lists the findings of the survey and the interviews with respect to the contribution of attitude, conduct and culture to a focus on quality in audit teams at the Big 4 audit firms. A detailed account of the assessment conducted is presented in section 4.

2.1 Quality orientation receives much attention in the audit teams of the Big 4 audit firms

The statutory auditors, the managers and the employees state in the assessment that they consider delivering quality to be important². In the interviews, respondents acknowledged that the audit sector's right to exist depends on trust, which can only be gained (or regained) by consistently delivering quality. The employees experience involvement of the statutory auditors because they are involved in the approach to the audit, pose critical questions regarding risks, and are approachable for questions and comments.

The respondents experience that they have been given more time and support from their organisation in recent years to be able to do this. They state in the interviews that in their experience, the change programmes have had positive effects with respect to a quality-oriented culture. The organisations and the audit teams are experienced as open and safe. In addition, the organisations say that they are willing to learn from their mistakes. The attention of the senior management of the organisation to delivering quality means that the statutory auditors, managers and employees understand the importance of delivering quality.

The respondents state that they would welcome more time and resources to do what they consider to be necessary in order to deliver quality. They say that the audit firm is not always able to offer this, or does not always use the right performance indicators. The causes of this usually lie in the deadlines. The employees say that they would like to have more time for reflection built into the audit approach. They also say that in their view, the trade-off between speed and diligence is not always properly considered.

According to the respondents, the audit firms have made good progress with respect to attitude, conduct and culture. According to the respondents, the organisation devotes a high level of attention to a focus on quality in the audit teams. They see this among the statutory auditors and the responsibilities for the audit practice. They also see improvements in the management of the organisation and in internal communication. The respondents say that the changes initiated at their audit firm are having positive effects on the focus on quality in the audit team and in the organisation.

² The AFM did not provide a definition of 'quality' to the respondents in the survey or during the interviews. The respondents described the importance that they attach to quality on the basis of their own understanding of the meaning of 'quality'.

Differences between the Big 4 audit firms are small. This is shown by the findings of the online survey and the interviews at the Big 4 audit firms. The averages resulting from the questionnaire show little variation. There are however sizeable differences within audit firms. Among the selected audits, there are differences in management, attitude and cooperation.

2.2 Priorities for policy and interventions

Factors that can putatively improve the focus on quality of audit teams have been determined based on the findings of the assessment. Factors are considered to be important for the focus on quality if they 1) contribute to the importance attached by audit team members to delivering quality in general, or 2) contribute to the audit quality assessment of audit team members regarding the selected statutory audit. Should interviews or the survey suggest there is room for improvement, then these factors are prioritised for new or improved policies. Factors already considered to be satisfactorily addressed, should be embedded in policies and monitored for continued performance. The complete list of the factors involved in the assessment is given in the following section, with an explanation for each factor.

The priorities are established by selecting factors that deliver a reasonable contribution to the importance that people attach to quality, and their own assessment of the quality provided. Factors with relatively unsatisfactory implementation are given the priority of “**Action**”. Factors already satisfactorily implemented are given the priority of “**Embed**”.

Priority	Factors that contribute to the importance of quality	Factors that contribute to own assessment of quality
<p>Action Factors likely to improve the focus on quality.</p> <p>The factor contributes to the focus on quality, but employees are relatively unsatisfied regarding its implementation.</p>	<ul style="list-style-type: none"> • Performance management • Facilitation by the audit firm and the statutory auditors (general) • Example set by conduct by persons with ultimate responsibility for the audit practice and by statutory auditors 	<ul style="list-style-type: none"> • Portfolio management • Staffing of statutory audits • Project set-up of statutory audits • Building in time for reflection • Mutual critical calling to account in working processes • Sharing of information • Trade-off between speed and diligence
<p>Embed Factors to be embedded in processes and monitoring progress.</p> <p>The factor contributes to the focus on quality, and employees are relatively satisfied regarding its implementation.</p>	<ul style="list-style-type: none"> • The tone at the top from persons with ultimate responsibility for the audit practice and from the statutory auditors 	<ul style="list-style-type: none"> • Facilitating the development of knowledge and competences • Ownership of and responsibility for the end result • Communication, openness and safety in the audit teams

Pressure of work does not feature in the list of priorities. The findings do not suggest that (excessive) pressure of work is a major contributing factor to the focus on quality. Although pressure of work is the lowest scoring factor in the assessment, the respondents say that work pressure is predictable and is limited to a manageable busy season. The respondents say they are aware of the choice they have made and are prepared for this when working for a Big 4 audit firm. Only one respondent expressed a negative opinion regarding the pressure of work and the culture of long working hours in the interviews. Employees in training did however say that the combination of work and study is onerous. Although pressure of work is not a major obstacle to the focus on quality according to the findings, this may be an important theme for audit firms for other reasons such as recruitment and retention of employees.

2.3 How the statutory auditor encourages or hinders a focus on quality

The employees say that most statutory auditors have a strong focus on substance. In the audit teams, the statutory auditors encourage discussion of substance and are respected by the interviewees for their professional knowledge. According to the respondents, in the past the statutory auditors with the largest portfolios enjoyed the highest status. Nowadays, the statutory auditors with in-depth knowledge of the subject and the ability to communicate this knowledge have the highest status. The statutory auditor contributes to the focus on quality by taking a critical attitude to the audit client.

The statutory auditor is responsible for structuring the work in the audit teams in a way that contributes to delivering quality. Attention to the factors listed in this assessment is relevant. The interviews reveal that the extent to which statutory auditors are hands-on managers varies (and, for instance, very much depends on the size of the audit team). Generally, the daily management is the responsibility of a manager, who is more frequently present with the audit team than the statutory auditor. The statutory auditors have a role in organising and embedding all the factors that contribute to the focus on quality, whether some or all of these tasks are delegated to a manager or not.

The audit team members state that a good statutory auditor challenges them and has a mentoring role. All statutory auditors state that they are regularly present with the audit team, which was confirmed by the managers and employees. This applied especially to the managers, but the juniors interviewed did not experience much distance on the part of the statutory auditors either.

Statutory auditors have different leadership styles, and the fit with the audit team is particularly important. This is shown in both the answers of the interviewees and the variation in answers in the survey. According to the respondents, the connection between the leadership style and the audit team is important. Three leadership styles were included in the survey in order to gain further insight into the contribution of leadership style:

1. A participatory leadership style focuses on cooperation within the audit team. The assessment shows that this style makes a fair contribution to the focus on quality of the audit team.
2. A transformational leadership style focuses on stressing the team objective of delivering quality, and according to the findings this style also makes a fair contribution to the focus on quality of the audit team.
3. An autocratic leadership style focuses on the ultimate responsibility of the statutory auditor. The assessment shows that an autocratic style on the part of the statutory auditor has no effect on the focus on quality of the audit team.

The interviewees state that statutory auditors they see as more 'old-fashioned' have an autocratic leadership style, and that more 'modern' statutory auditors engage much more in dialogue with the audit team.

3. Working on the focus on quality of audit teams

What contributes to a focus on quality by audit team members? What do good audits have in common, according to team members? And how should an audit firm apply these insights to get and maintain a grip on the focus on quality of audit teams? The assessment shows the factors that are important getting a grip on the focus on quality of audit teams. All factors are explained in this section.

3.1 Important factors for the focus on quality of audit teams

Combining the findings of this assessment and their own insights, audit firms can set their own priorities. These priorities can be applied by improving existing policies or developing new policies. Steps 1 and 2 of this approach are also used to determine the priorities for the audit firms assessed. These priorities are listed in the previous section.

In this assessment, the focus on quality of an audit team is divided into factors that contribute to 1) the importance that team members attach to delivering quality and 2) the assessment of audit quality by team members regarding a selected statutory audit. In each case, the respondents have determined this for themselves and for their colleagues. The AFM has used the findings of the survey and the interviews to determine the contribution.

The policy factors, such as portfolio management and performance management, are the main contributors to the importance attached by respondents to delivering quality. The design of the working processes, the critical attitude in working processes and the degree of cooperation are major contributing factors to the respondents' opinion regarding the quality delivered in the selected audit.

The factors for which no survey questions were asked are assessed on the basis of the interviews. These factors are marked with an asterisk (*).

Factor	Contribution to importance of quality	Contribution to own assessment of quality
Policy		
Portfolio management* . The process of accepting and continuing with audit clients and audit engagements, in order to ensure that the strategic ambitions of the audit firm are appropriate to its available capacity and competencies.	Fair to high	Low to fair
Performance management . The translation of the strategy of the audit firm into measurable expectations for statutory auditors, managers and employees. The way in which remuneration and appreciation are linked to performance.	Fair	Low
Facilitation (general) . The making available of resources, such as IT, training and office space. The assessment included a question about facilitation in general by the audit firm and the statutory auditors.	Low to fair	Low

Factor	Contribution to importance of quality	Contribution to own assessment of quality
Facilitation (knowledge of standards and conduct). The way in which the audit firm provides for the development of its employees.	Low to fair	Low to fair
Board of directors and leadership at the audit firm		
Tone at the top. All statements of hierarchically senior officers at the audit firm. The board of directors and the statutory auditors communicate their priorities in their statements.	Low to fair	Low
Example set by conduct. All the conduct of hierarchically senior officers at the audit firm. The board of directors and the statutory auditors indicate what they consider to be important through their conduct.	Low to fair	Low
Error management. Dealing openly with errors and the willingness of the audit firm to learn from errors.	Low to fair	Low to fair
Leadership by the statutory auditor		
Involvement. Is the statutory auditor sufficiently involved in the statutory audit?	None to low	Low
Time spent. Does the statutory auditor spend sufficient time on the statutory audit?	Low	Fair
Performance: general		
Staffing*. The allocation of employees with the necessary knowledge and competences, at the right time, and with sufficient time to perform their procedures.	Low to fair	Fair to high
Pressure of work. Pressure of work is the subjective experience of stress in the performance of work as a result of factors such as insufficient knowledge, competences, resources or time.	No contribution	Low to fair
Project set-up*. The design of the working processes. The project set-up is the way in which the working processes are organised, prepared for, planned, performed and completed.	Low to fair	Fair to high
Performance: critical attitude in working processes		
Sharing of information. Audit team members are given the information they need in a timely manner.	None to low	Fair to high
Collection of information. Audit team members were critical regarding the information provided by the client.	Fair	Fair to high
Calling to account. Audit team members call each other to account if a member is too easily satisfied with the information provided by the client.	Low	Fair
Processing information. Audit team members chose diligence over speed.	Low to fair	Fair to high

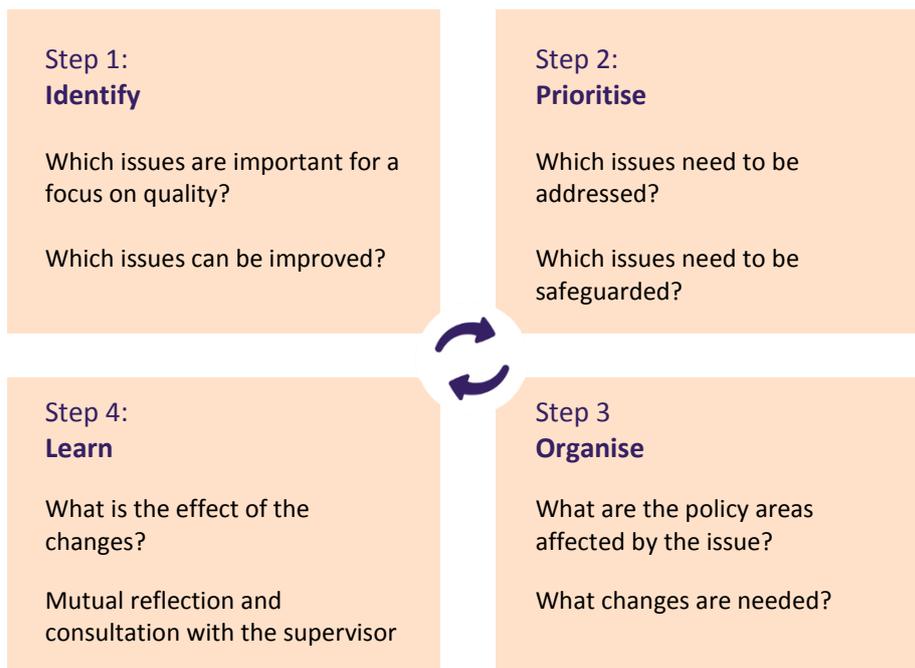
Factor	Contribution to importance of quality	Contribution to own assessment of quality
Reflection. Time was allocated for reflection on the approach and performance of the audit.	Low	Fair to high
Performance: cooperation		
Communication. General satisfaction regarding communication in the audit team.	Low to fair	Fair to high
Openness and safety. The liberty to discuss alternative opinions, to argue against prevailing ideas and to admit mistakes.	Low to fair	Fair to high
Ownership. Responsibility for one's own duties and the general quality of the statutory audit.	Low to fair	Fair to high
Interdependence. The extent to which cooperation was a determining factor for the quality of the statutory audit.	Low to fair	Fair

Are the factors with a low contribution unimportant? All the selected factors are shown to be important in the literature on or in supervisory practice, and accordingly have been chosen for this assessment. The fact that they do not make a major contribution to the focus on quality of audit teams is due to the structure of the work, the current situation at the audit firms assessed and the definition of the focus on quality of the audit teams.

3.2 Four steps, one method for practical application

The AFM has developed a method for applying the insights from the assessment in practice. The four steps in this method will help audit firms to identify and address important factors for the focus on quality, in a way that fits with the specific needs of their own organisation. This method is based on the quality circle that the AFM also applies in its assessment of the improvement measures taken by the audit firms to ensure the quality of their statutory audits. The circle has four steps: plan, do, check, act. By going through this circle in a structured manner and repeating it, there will also be continuous reflection on the achievement of goals and the contribution to the focus on quality. The method provides guidance and insights, but is not a checklist. Application of the step-by-step plan is therefore no guarantee of success. The aim of the method is to support policymakers and managers in maintaining a sustained focus on quality in audit teams. This structure also helps facilitate discussions regarding attitude, conduct and culture.

The method consists of four steps, as shown in the diagram below.



The results of all steps can be recorded on the poster in this publication.

Step 1: Identify				Step 2: Prioritise	Step 3: Organise		Step 4: Learn
Factors	Important for:	Size of contribution: Low, fair, high	Current performance: Poor, fair, good	Priority: Action or Embed	Policy areas relevant for this factor:	Changes and interventions	Monitor, reflect and follow-up
Policy							
Portfolio management	Importance of quality	Fair to High					
	Own assessment of quality	Low to Fair					
Prestatie management	Importance of quality	Fair					
Facilitation (general)	Importance of quality	Low to Fair					
Facilitation (knowledge of standards and conduct)	Importance of quality	Low to Fair					
	Own assessment of quality	Low to Fair					
Board of directors and leadership at the audit firm							
Tone at the top	Importance of quality	Low to Fair					
Example set by conduct	Importance of quality	Low to Fair					
Error management	Importance of quality	Low to Fair					
	Own assessment of quality	Low to Fair					
Leadership by the statutory aud							
Time spent	Own assessment of quality	Fair					
Performance: general							
Staffing	Importance of quality	Low to Fair					
	Own assessment of quality	Fair to High					
Pressure of work	Own assessment of quality	Low to Fair					
Project set-up	Importance of quality	Low to Fair					
	Own assessment of quality	Fair to High					
Performance: critical attitude in working processes							
Sharing of information	Own assessment of quality	Fair to High					
Collection of information	Importance of quality	Fair					
	Own assessment of quality	Fair to High					
Calling to account	Own assessment of quality	Fair					
Processing information	Importance of quality	Low to Fair					
	Own assessment of quality	Fair to High					
Reflection	Own assessment of quality	Fair to High					
Performance: cooperation							
Communication	Importance of quality	Low to Fair					
	Own assessment of quality	Fair to High					
Openness and safety	Importance of quality	Low to Fair					
	Own assessment of quality	Fair to High					
Ownership	Importance of quality	Low to Fair					
	Own assessment of quality	Fair to High					
Interdependence	Importance of quality	Low to Fair					
	Own assessment of quality	Fair					

Step 1: Identify. The first step is to identify the factors that offer the most potential for improvement. The poster accordingly lists all the factors with the insights from the assessment: their contribution to the importance that team members attach to quality, and to their own opinions of the statutory audit. The audit firm evaluates its performance with respect to all these factors and can use various methods to do this. An organisation may decide to use questionnaires, interviews or focus groups to evaluate performance on each factor. The current performance can be qualified as poor, fair or good. The performance can be recorded on the poster.

Step 2: Prioritise. In the second step the priority score is determined for each factor. The factors with the greatest contribution and the lowest performance are given the highest priority: Action. Factors on which performance is already good are followed up so that the good performance is maintained: Embed. Factors that contribute too little are given the lowest priority. The poster contains a table that can be used as a guideline for the combination of the contribution and the performance into a priority score. An organisation is expected to determine its own priorities. The poster does not show any factors for which the contribution to the focus on quality or employees' own opinion of the statutory audit is too low according to the assessment.

Current status	Size of contribution	
	Fair	High
Poor to fair	Priority 1: Action or priority 2: Embed	Priority 1: Action
Fair to good	Priority 2: Embed	Priority 2: Embed

Step 3: Organise. The third step concerns the determination of the policy areas that are relevant for the prioritised factors. The exact policy areas and interventions will vary between each audit firm and for each factor. A focus on quality can for instance be encouraged in the promotion policy, the quality policy or in internal communication. A permanent improvement will probably involve changes in multiple areas. The poster provides room for a brief recording of the policy areas and the changes that the organisation wishes to make. Changes do not always have to involve more rules or checklists. An organisation may also decide to get rid of rules with counter-productive effects.

Step 4: Learn. The fourth step begins once the changes have been implemented and the interventions are complete. Monitoring the results of the changes and its interventions enables the audit firm to develop more effective interventions or enact new policy changes. The same instruments that are used in the identification stage can be used in this step, such as questionnaires or interviews. The organisation can reflect internally or with the supervisor on the effectiveness of the changes and interventions it has effected. This step leads to new insights, and a new starting point for repeating the step-by-step plan.

4. Reporting

The insights in this publication are based on the assessment carried out of the Big 4 audit firms. How this assessment was conducted and the choices made with respect to the subject is explained in this section.

4.1 Background to the investigation

What is the place of this assessment in the AFM's supervision programme? The supervision of audit firms consists among other things of the regular measurement of the quality of statutory audits and encouraging the introduction of change measures in order to permanently improve the quality of statutory audits. The assessment described in this report is part of the encouragement of change measures and provides insight into the factors that contribute to a focus on quality. Changes in attitude, conduct and culture are essential for the changes made to become rooted in the organisation. Insight into attitude, conduct and culture provides signals with respect to the embedding of change processes at audit firms.

4.2 Assessment approach

The elements are selected on the basis of relevant management literature and academic articles. The factors come from sources on organisational science^{3 4 5}, HRM^{6 7}, leadership⁸ and error management⁹. Organisational culture is a pattern of shared assumptions at audit firms that are learned by the group as they solve problems. These solutions enable organisations to adapt to external developments or organise themselves better, and have sufficiently proved themselves in practice to be taught to members of the group¹⁰. This group learning may not always retain its functionality, and may therefore no longer be appropriate.

Structure, behaviour and organisational culture have a complex interaction. From this perspective, improved quality in the audit sector demands comprehensive changes, involving both structural features and processes and the interaction with attitude, conduct and culture at audit firms¹¹.

143 statutory audits were selected for the assessment. All employees and statutory auditors who worked for more than 10 hours on a statutory audit were in scope of the assessment. Everyone

³ Keuning and Wolters (2007), "Structuur doorzien".

⁴ Ryan and Deci (2000) "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being".

⁵ De Waal (2003), "Prestatiegericht gedrag".

⁶ Boxall and Purcell (2015), "Strategy and human resource management".

⁷ Kluijtmans (2017), "Leerboek HRM".

⁸ For an account of the leadership styles, see Chan et al., (2012), Schuh and Zhang (2013), Den Hartog et al. (2004), and Bouma and Emans (2005).

⁹ AFM (2017), "Leren van fouten; op weg naar een open foutencultuur, inzichten vanuit onderzoek in de handelsketen".

¹⁰ E.H. Schein (1985), "Organizational Culture and Leadership".

¹¹ Future of the Auditing Profession working group (2014), "In het publiek belang, maatregelen ter verbetering van de kwaliteit en onafhankelijkheid van de accountantscontrole".

who had contributed to more than one selected audit was allocated to the audit with the fewest audit team members. The AFM based its selection of the statutory audits on the information provided by the audit firms. All the statutory audits for the 2017 financial year for which the audit team's procedures were completed at the end of March 2018 were in scope. The selection took account of the following factors:

1. Statutory audits for which the statutory auditor did not have the position of partner (such as non-equity partners, directors) were excluded.
2. We selected both large and small statutory audits using a median split along the audit size (in hours).
3. We selected both statutory auditors with more and less experience using a median split along the time in position of the statutory auditor.
4. Lastly, we made a selection of first-year audits and audit engagements held by the audit firm for longer.

The assessment consisted of desk research, an online survey and interviews. The combination of these various methods increased the reliability of the statements in the assessment. The methods used were:

- **Desk research.** The desk research concerned relevant documentation on performance management, quality control systems and the change process at the audit firms. The documentation was used in the design of the online survey and the interview guideline.
- **Online survey.** The survey was developed by the AFM, and the questions were discussed with the audit firms. The survey was made available to the audit firms in advance, but was not distributed among the assessment population. Some questions in the survey were based on existing research instruments¹², while others were formulated specifically for this assessment. A total of 1,505 people received the survey, and 1,163 people completed it.
- **Interviews.** The interviews were conducted by two supervisors from the AFM. The interviews were semi-structured on the basis of an interview guideline that followed the same general outline as the survey. All the interviews were held at the offices of the audit firms and lasted up to 1.5 hours. The statutory auditors were interviewed individually in all cases, while the employees were interviewed either individually or in small groups of roughly equivalent position levels. The interviews concerned 20 selected statutory audits and were held with all responsible statutory auditors and 60 team members.
- **Concluding discussion with representatives of the audit firm.** Finally, the results of the survey and the interviews were shared in a concluding discussion with representatives of the audit firms who were asked to reflect on the results. The purpose of these discussions was to test and enrich the results. A further aim was to encourage the audit firms to use the results for their own interventions. These reflections are included in the firm-specific reports.

¹² After completion, the AFM established statistically that the existing scales for leadership styles used meet the conditions for internal validity. Cronbach's alpha was high for all scales used (participatory leadership: 0.91, transformational leadership: 0.92, and autocratic leadership: 0.82)

The results of the assessment methods have been combined in an observation database, in which individual observations were allocated to assessment factors regardless of their origin.

For the results, the position levels at an audit firm are allocated to generic categories. These categories are (1) employee, (2) manager, (3) non-equity partner, and (4) equity partner. Using these generic categories enables comparison between the audit firms.

The assessment uses correlations to calculate the contribution of a factor to the focus on quality. The scores on the various factors are always correlated with the importance that people attach to delivering quality and with their own opinion regarding the quality delivered in the selected audit. This statistical contribution of a factor is calculated at statutory audit level. The absolute value for the correlation was used. Cohen’s guidelines were used for classification¹³. These quantitative results were in all cases combined with the interview results for the interpretation of the results.

Table 1. Legends for related tables

Size of Pearson’s correlation (r)	Interpretation
$ r < 0.1$	No contribution
$0.1 < r < 0.3$	Low contribution
$0.3 < r < 0.5$	Fair contribution
$ r > 0.5$	High contribution

4.3 Limitations of the assessment

The assessment gives an impression of the situation at the Big 4 audit firms. The assessment does not give a general picture of the sector.

No definition of quality was used in the assessment. When answering questions, the respondents used their own definition of ‘focus on quality’, which may not necessarily correspond to the definition used by the supervisor or society at large. One possible limitation of the assessment is that respondents may have used a different definition of ‘focus on quality’ in their answers to questions in which they themselves assessed this.

The assessment is based on the hypothesis that a quality-oriented culture at an audit firm and within the audit teams has an effect on the quality of statutory audits. However, this assessment did not involve an evaluation of the quality of the statutory audits. Furthermore, no connection was made with any measurement of the quality of the statutory audit by the audit firms. The connection between a quality-oriented culture and the quality of statutory audits has not been quantified. A focus on quality is essential for the delivery of quality, but a focus on

¹³ Cohen (1992), "A power primer".

quality alone is not sufficient. Other factors affecting the quality of statutory audits are not covered in this assessment.

The assessment was designed to be applied by audit firms. Accordingly, different assessment methods were used to establish the connection between a quality-oriented culture and relevant factors for people's own opinion regarding the focus on quality in audit teams. This connection is quantified with correlations and substantiated further with qualitative research. Further research is needed to speak of causal relationships.

The assessment was not designed to assign scores. Its findings do not involve the identification of violations or enforcement action. The AFM will further discuss outcomes, interventions and policy improvements with the audit firms on the basis of the assessment.

The assessment is vulnerable to a social desirability bias. While socially desirable answers cannot be totally excluded, the combination of the different assessment methodologies gives greater reliability than a survey or an interview alone. From the reflections in the concluding discussions with representatives of the audit firms, we know that they have studied some of the factors themselves, and that they see similar patterns for these findings.

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