

Article

The Effects of Key Audit Matters and Stock Ownership on Audit Committee Members' Accounting Preferences

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Abstract: This study investigated the interactive effect of key audit matters (KAMs) and stock ownership on German audit committee (AC) members' preferences regarding accounting issues in an experimental setting. Specifically, we explored whether the increased accountability of AC members to investors, resulting from KAM disclosures, is influenced by whether an AC member owns shares in the audited company. Our findings suggest that the disclosure of KAMs supports a conservative management accounting preference. However, KAMs can be used by stock-owning AC members as disclaimers that inform the investing public and might serve as legitimization tools for ACs with a preference for less conservative accounting. Hence, our study provides evidence from a two-tier governance country that audit committee members' accounting preferences based on disclosed KAMs depend on their financial independence.

Keywords: audit report; key audit matters; audit committee; director stock ownership; financial reporting quality; audit committee members stock ownership



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1. Introduction

Standard setters around the world have attempted to improve auditors' reports by adding useful information for the addressees ([European Parliament and the Council of the European Union 2014](#)). One of these extensions entails that auditors of public interest entities (PIEs) must reveal key audit matters (KAMs) in their reports.¹ Thus, KAMs can enhance the informational value of an auditor's report by increasing transparency. In Germany, ISA 701 (Communicating Key Audit Matters in the Independent Auditor's Report) and the EU Audit Reform obligate auditors of PIEs to provide KAMs in their reports.

This regulatory change might have implications for not only the auditor identifying and describing these matters but also for investors, management, boards of directors, and other stakeholders. In this study, we focus on the audit committee (AC) as part of the supervisory board of a company. The AC is an important part of corporate governance, as it supports a board of directors by monitoring accounting practices and audits ([DeZoort et al. 2002](#)). An external auditor communicates the main aspects and results of an audit to the AC of a company as a key counterpart. Therefore, an AC is of particular interest when dealing with corporate governance questions. Moreover, the two-tier board structure in Germany, where the AC is a small subgroup of the supervisory board that is independent of management, offers more insight into how increased audit reporting might affect AC members' accounting preferences.²

Prior research studying the effects of KAMs³ focused on the informational value of auditors' reports for professional and nonprofessional investors ([Chang et al. 2024](#); [Gambetta et al. 2023](#); [Goh et al. 2024](#); [Kitiwong and Sarapaivanich 2020](#); [Köhler et al. 2020](#); [Lennox et al. 2023](#); [Moroney et al. 2021](#); [Zeng et al. 2021](#)) or on the usefulness of KAMs for investors in making decisions ([Christensen et al. 2014](#); [Hu et al. 2023](#)). [Gold et al. \(2020\)](#) and [Bentley et al. \(2021\)](#) focused on the effects of disclosing KAMs on managers' decision behavior, while [Camacho-Miñano et al. \(2023\)](#) examined the usefulness of KAM disclosures

in assessing the level of financial distress present at a client firm. Other researchers focused on the effects of KAMs on judgments related to auditor liability (Brasel et al. 2016; Coram and Wang 2021; Gimbar et al. 2016a, 2016b; Vinson et al. 2019; Kachelmeier et al. 2020). Kang (2019) investigated the effects of critical audit matters (CAMs) and investor sophistication on AC members' behaviors. Here, we extend the existing literature by also focusing on the effects of KAMs on the accounting preferences of non-executive directors, especially those in the AC of a company. We developed our hypotheses based on research in the field of social psychology to explain the cognitive patterns responsible for specific decision-making behavior (Gold et al. 2020; Köhler and Quick 2018).

Prior research on the independence related to stock ownership showed different results regarding its effects. On the one hand, the stock ownership of board members is positively correlated with a better present and future performance of a company, as directors owning stocks have a greater incentive to supervise and intensely scrutinize decisions (Bhagat and Bolton 2013; Bhagat et al. 2008). On the other hand, stock ownership is associated with a loss of objectivity in decision making because AC members tend to accept the use of earnings management to maximize their outcomes (Bédard et al. 2004) and prefer biased reporting (Magilke et al. 2009). We contribute to this research area and investigate whether AC members' stock ownership impacts their accounting preferences and, if so, how. While the disclosure of KAMs generally increases AC members' financial statement accountability to investors (Kang 2019), we assume that an interaction between audit disclosure and stock ownership exists. More specifically, the effect of the disclosure of KAMs on AC members' behavior might depend on whether an AC member owns stock in the audited company (Rose et al. 2013). Our research design is closest to that of Rose et al. (2013), who find interactive effects of director stock ownership and the transparency of director decisions. Stock-owning directors are more likely to oppose management's attempts to manage earnings when transparency increases, whereas the disclosure of KAMs might lead to more conservative accounting preferences for non-stock-owning directors. However, increasing transparency does not affect the likelihood that non-stock-owning directors oppose management's attempts to manage earnings.

Owning the stocks of the company where one serves as an AC member might lead to a dilemma because such financial involvement conflicts with the critical monitoring duty of the responsible persons. In this case, the disclosure of KAMs might serve as a disclaimer and compensate actions that are more selfish (Griffin 2014). Related to this, our study is designed to shed light on understanding the interplay between decision-makers' independence and transparency increasing audit reporting regulations.

We conducted a 2-x-2 between-subjects experiment involving 52 incumbent or former acting non-executive directors to investigate possible interacting effects between KAM transparency and stock ownership on AC members' behavior. The participant group comprises a population that is very difficult to reach. This is a unique data basis due to the limited accessibility and low representativeness in conventional sampling frames. Conducting an experiment serves two purposes: first, it enables us to isolate the investigated factors from other influencing factors, and second, it allows for investigating factors for which no real-world data exist (Kachelmeier and King 2002). Our research design is based on the study by Rose et al. (2013). While Rose et al. (2013) investigated the effect of stock ownership and transparency, measured by meeting minutes that are available to the public, on corporate directors' agreement with management's earnings management attempts, we use the disclosure of KAMs as a different measure of transparency. As such, we believe that in addition to the characteristics of the participating individuals, the type of information that is made transparent to the public leads to differences in our setting and our results.

Thereby, our study contributes to recent research in several ways. First, while prior research has focused on the consequences of an expanded auditor's report or KAMs in particular on investors' decision making and market reactions (Bédard et al. 2019; Boolaky and Quick 2016; Camacho-Miñano et al. 2023; Christensen et al. 2014; Elsayed et al. 2023; Gutierrez et al. 2018; Hu et al. 2023; Köhler et al. 2020; Lennox et al. 2023), on auditors'

judgment (Asbahr and Ruhnke 2019; Ratzinger-Sakel and Theis 2019), and auditors' liability (Brasel et al. 2016; Coram and Wang 2021; Gimbar et al. 2016a, 2016b; Vinson et al. 2019; Kachelmeier et al. 2020), as well as on managers' decisions and reporting behavior (An et al. 2023; Bentley et al. 2021; Gold et al. 2020), we shift the focus to ACs as a critical institution when discussing the impact of KAM reporting.⁴

Second, our study contributes to the extensive corporate governance literature, especially that concerning factors, such as AC members' corporate governance experience, financial reporting, and audit knowledge, which might influence the decision-making behavior of the AC of a company (Boonlert-U-Thai and Suttipun 2023; DeZoort and Salterio 2001; Free et al. 2021; Fuller et al. 2021; Kang 2019; Knapp 1987; Obermire et al. 2021). We focus on AC members' financial independence as a further factor to extend the existing literature on AC members' accounting preferences (Magilke et al. 2009).

Finally, our study might be of interest to standard setters and practitioners. Members of an AC must be aware of an unconscious but possible change in their accounting preferences caused by the disclosure of KAMs in an auditor's report. Standard setters deal with the question of whether disclosure, in fact, results in positive effects on stakeholders. Furthermore, our results can serve as decision support for standard setters when the requirement of publishing KAMs in a report is extended to non-PIEs. Additionally, auditors should be aware of the impact of their reporting on board members.

Our paper is organized as follows: Section 2 reviews recent studies on related topics and provides the theoretical background for developing our hypotheses. Section 9 outlines our research method, and then the results are presented in Section 4. The final section contains a discussion and our conclusions.

2. Background and Hypotheses

AC members, as part of the firm's supervisory board, have the duty to monitor and review accounting and auditing processes on behalf of shareholders. Half the members of a German supervisory board are shareholders' representatives, and the other half are employers' representatives. Following the theories of helping behavior and social responsibility norms, AC members protect investors' interests because they feel accountable to investors due to the AC's function as an oversight institution. Meanwhile, the disclosure of KAMs increases the financial statement accountability of AC members to investors because AC members are involved in the process of determining KAMs and discussing the issues disclosed as KAMs with an auditor (ISA 701). As they are aware that KAMs increase investors' attention and might influence their decisions, an AC's sense of responsibility for the reasonability and reliability of financial statements, especially the issues published as KAMs, is stronger under these circumstances (Kang 2019; Sirois et al. 2018). As for our participants, we built our research upon Kang (2019) in a German setting by investigating whether KAMs strengthen AC members' sense of duty to ensure the reasonableness and reliability of the information disclosed as KAMs.

There are factors other than KAMs that might influence directors' helping behavior and, hence, their accounting preferences. On the one hand, specific personality characteristics, such as overconfidence or narcissism, impact the decision-making approach of a firm representative (Obermire et al. 2021; Young et al. 2016). On the other hand, external factors, such as independence or corporate governance experience, also influence decisions (Bédard et al. 2004; Boonlert-U-Thai and Suttipun 2023; DeZoort and Salterio 2001). In this study, we focus on financial independence as the second factor that influences the individual preferences of audit committee members.⁵ As such, our setting is somewhat comparable to that of Rose et al. (2013). However, our setting offers incremental differences given the institutional differences of the German two-tier system as compared to the US one-tier system. Whereas Rose et al. (2013) investigated the behavior of former CEOs and board chairs who are quite close to management, we particularly study the accounting preferences of the supervisory board that is independently monitoring management and has to be less concerned about firm effects (cost or sales) of disagreeing with management.

2.1. Transparency by KAMs

The research on KAMs investigates transparency effects on firm representatives. For instance, potential benefits of increased board transparency include increased accountability and reductions in asymmetric information that can lower the cost of capital (e.g., [Diamond and Verrecchia 1991](#); [Leuz and Verrecchia 2000](#)). Psychology research suggests that increasing the accountability of board members through greater transparency can reduce their tendencies to make self-serving decisions ([Simonson and Nye 1992](#); [Lerner and Tetlock 1999](#)). As accountability increases, decision-makers become more inclined to make decisions that others perceive as appropriate and rational ([Kunda 1990](#); [Simonson and Nye 1992](#)). Related to this, prior studies have investigated two possible effects of KAMs. KAMs might affect the informational value and decision usefulness for stakeholders and the performance of auditor judgment. Additionally, they might affect the quality of financial statements and an audit itself. Recent research on the informational and communicative value of KAMs for investors yielded different results. [Sirois et al. \(2018\)](#) used eye-tracking technology to examine the informational value of KAMs, and their results showed that a limited number of KAMs in an audit report have attention-directing effects because the participants concentrate on KAM-related disclosures. While [Hu et al. \(2023\)](#) investigated the decision usefulness of KAM disclosure from the perspective of financial analysts⁶, [Christensen et al. \(2014\)](#) documented the decision usefulness of KAMs for investors. They designed an experimental study with business alumni and found that investors are more likely to abandon an investment if a CAM (KAM) paragraph is included in an audit report. [Köhler et al. \(2020\)](#) were unable to find any communicative value of a KAM section relating to goodwill for nonprofessional investors, but they did identify such value among professional investors. They distinguished between negative and positive KAM sections and found that the economic situation of a company is better evaluated amid a negative KAM condition, i.e., when small changes in the key assumptions could eventually lead to a goodwill impairment. Furthermore, [Carver et al. \(2023\)](#) found evidence that the disclosure of a CAM improves perceived auditor credibility, but the disclosure also has the unintended consequence of increasing feelings of information overload. More importantly, the disclosure of a CAM has a significant, positive total effect on perceived audit quality. This effect, in turn, lowers investors' perceptions of investment risk. [Dennis et al. \(2019\)](#) suggested that management can mitigate negative valuation effects that may arise from auditor disclosures and implied that visual cues in audit reports can prompt managers to increase disclosure transparency. This also implies that nonprofessional investors might struggle to weigh fully narrative auditor disclosures in their valuation judgments without corresponding management disclosures. [Rapley et al. \(2021\)](#), in a different setting comparing the effects of KAM identification versus no KAM identification, found that disclosing CAMs reduces investment intentions relative to no CAM identification. Studying the interaction of a CAM with accounting standards, [Ozlanski \(2019\)](#) reported that CAMs lower investors' perceptions of management's reporting credibility when the financial statement area discussed by the CAMs is governed by precise accounting standards. In contrast, using data from the UK, [Lennox et al. \(2023\)](#) did not find any informative value of KAMs for investors at all. This confirmed the findings of [Gutierrez et al. \(2018\)](#), which formed the basis for the investigation by [Lennox et al. \(2023\)](#), where the authors explored three potential explanations for why investors do not find additional auditor risk disclosures informative. The lack of investor reaction was not attributed to a delayed response or to auditors disclosing irrelevant information. Instead, the authors demonstrated that this lack of reaction results from investors already being aware of the financial reporting risks before they were disclosed by auditors in the extended audit reports.

Studies focusing on aspects of the quality of financial statements and audits have shown mixed results. An analysis by [Hu et al. \(2023\)](#) suggested that KAM disclosures have contributed to simultaneous improvements in both management disclosures and audit quality. Furthermore, auditor characteristics, such as dependence on client fees and industry specialization, as well as firm-specific factors like ownership structure and social

connections with the auditor, appear to influence the informativeness of KAM disclosures. [Boolaky and Quick \(2016\)](#) investigated whether information on KAMs has an impact on the quality of financial statements, of an audit and audit report, and of credit approval decisions as perceived by German bank directors. They could not provide evidence of a positive effect for any of the investigated factors. [Bédard et al. \(2019\)](#) examined the effects of justifications of assessments (JOAs) in France, which are similar to KAMs, on investors (measured by abnormal returns and abnormal trading volumes) and on audits (audit quality, cost, and efficiency). They found no market reactions or significant effects on aspects of an audit and concluded that JOAs do not have the predicted outcomes.

[Gold et al. \(2020\)](#) investigated whether KAMs affect managers' reporting behavior in the case of earnings management activities. In their study, participants who received an audit report with KAMs, including firm-specific content, were less willing to manage earnings than those who received a traditional audit report without a KAM section, leading to higher financial reporting quality. [Bentley et al. \(2021\)](#) studied whether and how a CAM disclosure affects managers' real operating decisions and found that a CAM disclosure reduces managers' risk-decreasing activities more than their risk-increasing activities. [Kang \(2019\)](#) focused on the effect of investor sophistication and the prospect of CAM disclosure on AC members' propensity to ask challenging questions about the management's significant accounting estimates. Her findings showed that AC members tend to ask more challenging questions amid a more unsophisticated investor base and when there is the prospect of additional CAM disclosures.

Relating to auditor judgment, [Asbahr and Ruhnke \(2019\)](#) analyzed whether reporting an accounting estimate as a KAM can influence an auditor's judgment and their corresponding actions regarding an accounting estimate and found that a judgment-action gap exists. [Ratzinger-Sakel and Theis \(2019\)](#) focused on KAM considerations and client pressures on auditor judgment performance, finding that auditors exhibit significantly less skepticism in their judgment (as part of auditor judgment performance) when KAM considerations are present.

According to the theory of social responsibility norms, humans are socialized to help individuals in need ([Baumeister 1982](#); [Eagly and Crowley 1986](#); [Schwartz 1975](#)). Combining this with the theory of helping behavior, humans tend to have a higher incentive to help other people if they need help or, rather, are dependent on the help of others ([Bekkers and Wiepking 2011](#); [Bornstein 1994](#); [Kang 2019](#)). Based on these theories, AC members should be psychologically motivated to help and protect shareholders. As such, they should help and support the investors who are dependent on an AC's monitoring function and who trust in its capability to ensure the reasonability of financial statements. It is an AC's fiduciary duty to oversee the financial reporting and auditing processes, protecting investors' interests ([Bierstaker et al. 2012](#); [DeZoort et al. 2002](#); [Kang 2019](#)).

AC members' fundamental helping behavior and their feelings of responsibility for investors can be influenced by material changes to their reporting environment through, for example, the duty to disclose KAMs in an auditor's report ([Kang 2019](#)). By disclosing KAMs, the most critical issues of an audit and an auditor's responses to these risks become transparent to investors. KAMs in the auditor's report might also have an impact on the company's AC as KAMs "are selected from matters communicated with those charged with governance" (ISA 701, Para. 8) to "provide intended users a basis to further engage with [...] those charged with governance about certain matters relating to the entity, the audited financial statements, or the audit that was performed" (ISA 701, Para. 3). As prior empirical research highlights the fact that investors pay attention to the issues of financial statements addressed in KAMs ([Sirois et al. 2018](#)) and consider these aspects in their investment decisions and evaluations of a company's performance ([Christensen et al. 2014](#); [Köhler et al. 2020](#)), KAMs in an auditor's report receive more attention from investors, which involves greater accountability on the part of the responsible persons in management ([Fuller et al. 2021](#); [Gold et al. 2020](#)) or of an AC ([Kang 2019](#)). Hence, we predict that KAMs increase AC members' financial statement accountability and strengthen their feelings of responsibility to help and protect investors ([Kang 2019](#)).

2.2. AC Member Independence

Prior research on AC independence measured by stock ownership provided mixed results. Studies showed that stock ownership impacts the decision and reporting behavior of an AC. For example, [Vafeas \(2005\)](#) found that increasing committee stock ownership reduces the likelihood of avoiding negative earnings surprises, suggesting that equity investment aligns the interests of AC members with the interests of other shareholders. In contrast, [Carello and Neal \(2003\)](#) suggested that an AC that is more independent as a result of owning less company stock is more effective in protecting the auditor from dismissal following the issuance of a going-concern report.

Prior research also considered measures other than stock ownership (the number of members that are independent directors, stock compensation) to indicate important findings, even if the studied measure was stock ownership ([Rose et al. 2013](#)). Archival studies indicated that the independence of an audit committee can increase financial reporting quality⁷ ([Bédard et al. 2004](#); [Cassell et al. 2018](#); [Krishnan 2005](#); [Raimo et al. 2021](#); [Sharma et al. 2011](#); [Yang and Krishnan 2005](#)) because the incentives of AC members are aligned with shareholders' incentives ([Archambeault et al. 2008](#); [Fama and Jensen 1983](#); [Magilke et al. 2009](#); [Monks and Minow 2001](#); [Williamson 1984](#)). In contrast, stock compensation could accompany a loss of objectivity because an AC member might act for selfish reasons to maximize their own outcomes. For example, prior experimental research showed that stock ownership changes audit committee members' reporting behavior. Findings indicated that AC members prefer biased reporting when compensated with stock-based compensation. As such, AC members who do not receive stock-based compensation are the most objective ([Magilke et al. 2009](#)). Nonetheless, compensation through long-term options supports more conservative accounting decisions ([Bierstaker et al. 2012](#); [Magilke et al. 2009](#)).

As such, the extent of an AC's helping behavior might also be affected by the independence of AC members.

2.3. Stock Ownership and KAM Transparency

Stock ownership might place AC members in a dilemma because, in addition to their oversight duty, they have an interest in maximizing their company's profit to maximize their personal outcomes. Prior KAM-related research focusing on such dilemmas suggested that KAMs can serve as disclaimers to legitimize self-serving decisions. For example, auditors might face a conflict of interest when they are mandated by the shareholders of a company to objectively audit its financial statements as independent parties while being paid by management at the same time ([Ratzinger-Sakel and Theis 2019](#)). [Asbahr and Ruhnke \(2019\)](#) and [Ratzinger-Sakel and Theis \(2019\)](#) interpreted KAMs to be disclaimers in this contextual setting and highlighted how auditors are more willing to act in their client's interest when KAMs are present than when they are absent. [Kachelmeier et al. \(2020\)](#) indicated a forewarning effect of CAM disclosures in an auditor's report. They experimentally showed that CAM disclosure lowers assessments of auditor responsibility when a misstatement that was previously disclosed as a CAM in the auditor's report occurs. [Brasel et al. \(2016\)](#) showed similar results, as their study also provided experimental evidence that KAMs can reduce the auditor liability judgments of jurors. The reason for this is that disclosures of information (e.g., as KAMs) can compensate for potential inaccuracies and legitimize self-serving decisions because investors were previously informed of them ([Cain et al. 2011](#); [Griffin 2014](#)). As prior KAM research showed this disclaimer effect of KAMs on the auditors who issue KAM disclosures, we assume that there are similar effects on AC members, i.e., on AC members who use KAMs as a psychological tool to inform shareholders about risky issues and thereby unconsciously legitimize them to make more self-serving decisions. As the disclosed matters in an auditor's report are selected from matters communicated with those charged with governance (ISA 701, Para. 8), the AC's involvement in this process is known, and the AC is informed about the issues disclosed as KAMs because these KAMs will have been extensively discussed with the AC prior to their disclosures. Furthermore, given the IAASB's intention to enhance the communication

about matters relating to the entity or the audit between financial statement users and the AC (ISA 701, Para. 3), an AC might be aware that in addition to investors' focus on its auditors, the investors also focus on the AC when discussing KAMs.⁸ Accordingly, KAMs might also be considered as disclaimers by an AC, leading them to act in a more self-serving manner. When an accounting issue is disclosed as a KAM, the investing public is informed about a potential accounting inaccuracy or, rather, a risk concerning this issue, providing a reasonable defense for AC members to explain why they do not call for an accounting adjustment (Griffin 2014). Therefore, we assume that stock-owning AC members are more likely to make a less conservative financial reporting decision if a discussed issue is published as a KAM in an auditor's report. We state this hypothesis formally below:

H1a: *Stock-owning AC members tend to prefer a less conservative accounting approach if a KAM is disclosed compared to a KAM being not disclosed.*

Rose et al. (2013) in contrast find that the transparency of internal discussions which are included in the minutes of the board meetings (and as such, shareholders are aware of the conflict) overwhelms the effects of public disclosure of disagreements for stock-owning directors but not for non-stock-owning directors. As such, non-stock-owning AC members' decision-making setting is not affected by any additional incentives and might react more conservatively when additional disclosure is provided to the public. We state this hypothesis formally below:

H1b: *Non-stock-owning AC members tend to prefer a more conservative accounting approach if a KAM is disclosed compared to a KAM not being disclosed.*

3. Material and Methods⁹

3.1. Administration and Sample

To increase participation in our experiment, we created a web-based case study with the online survey software Unipark (version 2.3). The study was distributed in two different ways: (i) the link to the survey was published in the cover letter to *Audit Committee Quarterly* (III/2018), which is a journal published by the German KPMG Audit Committee Institute; and (ii) an invitation to participate was sent by e-mail to potential participants who belonged to PIEs in the third quarter of 2018. By using an electronic version instead of a handwritten survey, we were able to ensure that each question was answered if specific answers were possible (e.g., age), and participants were not allowed to return to prior pages except where explicitly intended. Each IP address was allowed to participate only once. Incumbent or former non-executive directors of German companies participated in this research. We mailed our task materials and questionnaire to 988 supervisory board members. The first reminder was sent 54 days later, and the second reminder was sent 113 days after the first. Therefore, the overall data collection was closed by the end of 2018. The e-mail request resulted in 56 responses, constituting a participation rate of 5.7%.¹⁰ Additionally, 125 persons accessed the URL provided in *Audit Committee Quarterly*, of which 11 participants were recruited, representing a participation rate of 8.8%.¹¹ Thus, the final sample consisted of 67 responses.

3.2. Experiment Task and Materials

We conducted a 2-x-2 between-participant experiment. The experimental materials were administered in German. The materials included a general introduction that introduced us and assured the participants of their anonymity and our confidentiality. To ensure empirical validity and clarity in the case materials, we discussed the case with a highly experienced AC member and an audit partner of a Big 4 company. Furthermore, the questionnaire was pretested by three auditing researchers and a few auditing and accounting students. The pretest resulted in a few minor amendments.

To ensure that participants truly belonged to our target group of non-executive directors, we asked whether they are or were a member of a supervisory board before the case materials were presented. If they replied in the negative, they were immediately screened out.¹²

As illustrated in Figure 1, all participants received a short description of the study's fictitious company, including the existence of a EUR 17 million goodwill amount.¹³ They were randomly assigned to one of four groups. First, they were either informed that they should assume that they own shares of the fictitious company and that the share ownership is significant to their personal investment portfolio or that they do not currently own shares of the fictitious company in their personal investment portfolio (Manipulation 1, see Appendix A). On the next page, the case study was described: A disagreement had occurred between management and the external auditor concerning a goodwill amortization of a cash-generating unit. The auditor supported an adjustment of EUR 9 million because he or she evaluated future cash flows more critically than management, which supported an adjustment of EUR 5 million.

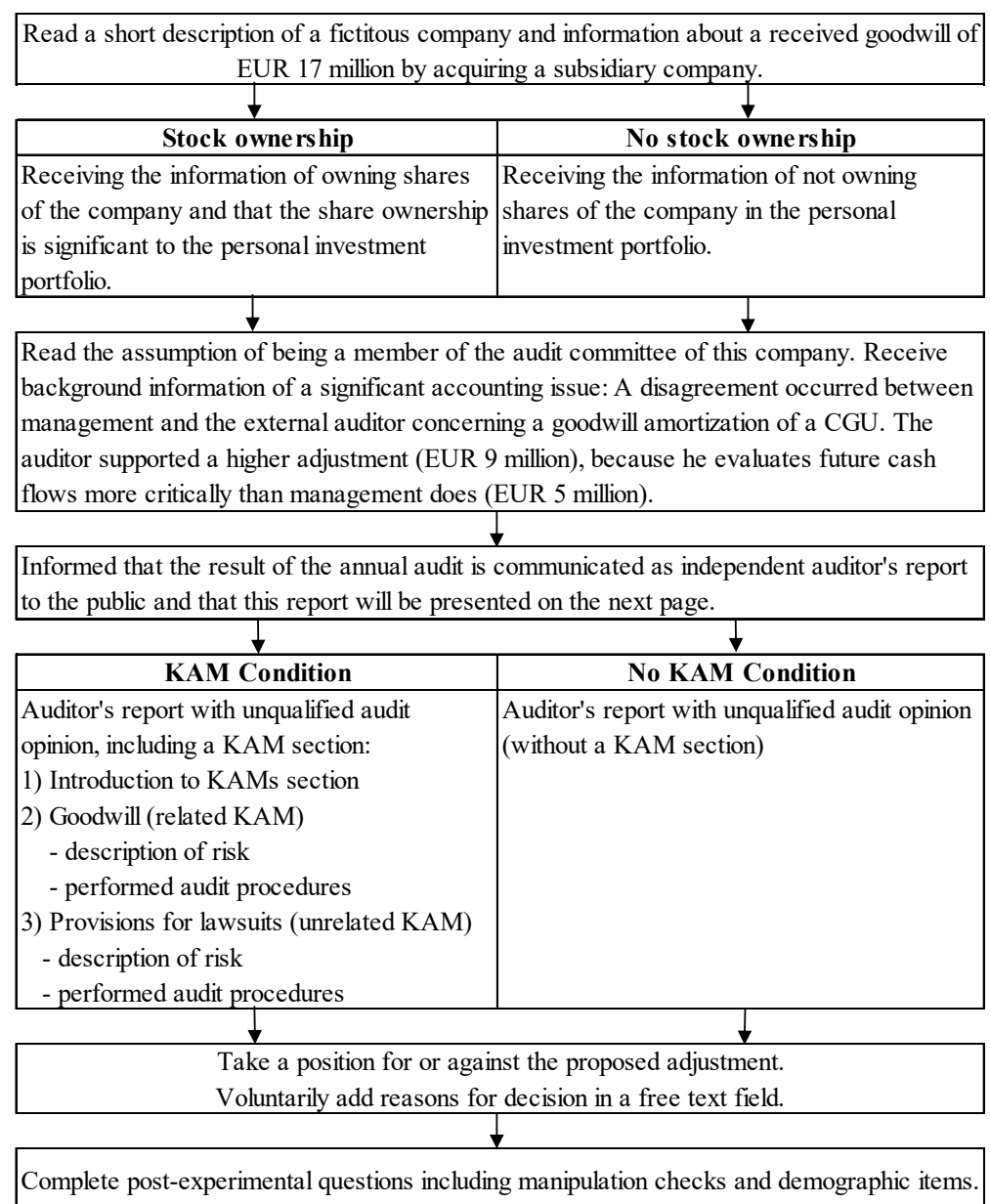


Figure 1. Experimental procedures.

The consequences of not accepting the adjustment were then presented. Internally, the issue was added to the summary of uncorrected audit misstatements as an attachment to the auditor's report to AC¹⁴; externally, the result of the annual audit was communicated as an independent auditor's report. Then, the second treatment was introduced. Participants were randomly presented with one of two potential audit reports for the current year (Manipulation 2). Participants in the KAM condition received an ISA 700 audit report with a KAM (goodwill) related to the previously described case and an unrelated KAM (provision for lawsuits). Participants in the no-KAM condition received the same background information concerning the goodwill impairment and a standard audit report (based on pre-ISA 700) without KAMs.¹⁵ Since we are interested in identifying a possible transparency effect of the provision of KAMs, we reported a debatable accounting issue to all treatment groups to ensure that all groups are aware of an issue possibly affecting the audit. Given this equivalent information base, we should then be able to measure the pure transparency effect provided by the KAM/no-KAM condition (see Appendix B for the KAM manipulation).¹⁶

We investigated the effect of these factors on the decision behavior of directors concerning an decreasing income issue and, consequently, on financial reporting quality. To measure this effect, participants were asked whether they voted for or against the adjustment on a 10-point Likert scale (1 = I vote for the adjustment; 10 = I vote against the adjustment), which represented our dependent variable.¹⁷ On a voluntary basis, it was possible to add reasons for the opinion in an open text field. Following the experimental section, the participants responded to manipulation checks, psychological questions, and demographic items.

3.3. Manipulation Checks

To check whether the manipulation of the independent variables was successful and whether the case material was understood correctly, we included two manipulation check questions. We inquired, first, whether the case asked to assume that the participants were in possession of a material amount of stocks and, second, whether the presented audit report included KAMs. Both responses were on a Likert scale with endpoints from 1 ("strongly disagree") to 7 ("strongly agree"). A total of 15 participants failed to answer at least one of these questions correctly¹⁸, and their responses were consequently excluded from the ensuing analysis¹⁹, resulting in 52 usable answers.

Furthermore, we asked some attention-check questions concerning the public availability of the auditor's report and the summary of uncorrected audit misstatements as an attachment to the internal auditor's report as well as whether the described issue could result in a qualified audit opinion due to its materiality. All statements were assessed on a 7-point Likert scale with endpoints from 1 ("strongly disagree") to 7 ("strongly agree"). Overall, these questions were answered mostly correctly with a mean of 6.3 saying that the auditor's report is publicly available, a mean of 2.5 stating that the summary of uncorrected audit misstatements is not publicly available, and a mean of 3.0 affirming that the discussed issue is not material. The answers to these questions confirmed the expertise of the participants and their correct understanding of the presented information.²⁰

To test for nonresponse bias in the group contacted by e-mail, we compared early and late responses, assuming that late responses served as an indicator of nonresponses (Quick and Schmidt 2018; Wallace and Mellor 1988). We defined early responses as finalizing the questionnaire in January at the latest and late responses as finalizing the questionnaire in May. The test showed no significant differences between the two groups ($t = -2.90$, $p = 0.774$), and thus, a nonresponse bias did not exist.

Moreover, we checked for differences in responses between the two ways of contacting participants (e-mail vs. URL). These test results did not show a significant difference between the two groups (Asbahr and Ruhnke 2019).

Table 1 provides the demographic information of the participants. The average age was 52 years with the youngest being 28 and the oldest participant being 62 (AGE), and the participants were mostly men with 36 male (72.0%) and 14 female (28.0%) participants (GENDER). On average, the participants had 7 years ranging from 1 to 21 years of practical experience as non-executive directors (EXP), and 31 participants (67.4%) were currently part of an AC. Most were members of the supervisory board in an MDAX company or an SME. A total of 29 participants were representatives of shareholders, and 21 were representatives of employees (REP). Nine participants had at least five years of auditing experience, with an average of at least five years, and most of them were in a high position as managers or partners.

Table 1. Demographic items.

Variable	Obs	Mean	Std. Dev.
GENDER	50	1.72	0.45
AGE	48	51.69	7.78
EXP	49	7.02	5.70
NR_AC	46	1.48	2.02
DAX	50	0.24	0.43
MDAX	50	0.36	0.48
SDAX	50	0.16	0.37
TecDAX	50	0.06	0.24
BIG COMP	50	0.30	0.46
SME	50	0.36	0.48
REP	50	1.58	0.50
AUD_EXP	49	1.82	0.39

Explanation of variables:

GENDER: Female = 1/male = 2; AGE: Age of participant; EXP: Number of years the participant has been part of a supervisory board; NR_AC: Number of memberships in an audit committee; DAX: Membership in a supervisory board of a DAX company = 1, 0 otherwise; MDAX: Membership in a supervisory board of an MDAX company = 1, 0 otherwise; SDAX: Membership in a supervisory board of an SDAX company = 1; 0 otherwise; TecDAX: Membership in a supervisory board of a TecDAX company = 1, 0 otherwise; BIG COMP: Membership in a supervisory board of a large, nonlisted company = 1, 0 otherwise; SME: Membership in a supervisory board of a small or medium-sized enterprise = 1, 0 otherwise; REP: Representative of employees, yes = 1/no = 2; AUD_EXP: Practical experience in an audit company, yes = 1/no = 2.

4. Results

4.1. Test Results

Table 2, Panel A shows the descriptive statistics as the means, standard deviations, and sample sizes across the treatment conditions. The results of the ANOVA are presented in Table 2, Panel B²¹. As predicted, the interaction term of KAMs and stock ownership is statistically significant ($p = 0.017$), whereas these effects are not statistically significant individually (KAMs: $p = 0.638$ and stock ownership: $p = 0.470$).²² The corresponding interaction pattern is shown in Figure 2.

We conducted post hoc mean comparisons to determine the differences between the individual groups (Table 2, Panel C).

Table 2. Results.

Panel A: Likelihood of Agreeing with Management (on a Scale From 1 to 10; 10 = Highest Level of Agreement).					
Stock Ownership	KAM Disclosure		Absent	Total	
	Present				
Yes	Mean: 5.00		2.55	4.04	
	SD: (3.67)		(2.16)	(3.35)	
No	Sample size: {17}		{11}	{28}	
	2.33		4.00	3.17	
Total	(2.27)		(3.02)	(2.75)	
	{12}		{12}	{24}	
	3.90		3.30		
	(3.39)		(2.69)		
	{29}		{23}		
Panel B: ANOVA results.					
Source	Partial SS	df	Mean Square	F-value	p value
Model	66.66	3	22.22	2.54	0.067 *
Key Audit Matters (KAMs)	1.96	1	1.96	0.22	0.638
Stock Ownership (SO)	4.64	1	4.64	0.53	0.470
KAMs x SO	53.68	1	53.68	6.14	0.017 **
Error	419.39	48	8.74		
Total	486.06	51	9.53		
* Significant at the 0.1 level (two-tailed); ** significant at the 0.05 level (two-tailed).					
Panel C: Post hoc mean comparisons (least significant difference).					
KAMs/Stocks	vs.	No KAMs/Stocks	1.14		0.019 **
KAMs/Stocks	vs.	KAMs/No Stocks	1.11		0.022 ***
KAMs/No Stocks	vs.	No KAMs/No Stocks	1.21		0.087 *
No KAMs/Stocks	vs.	No KAMs/No Stocks	1.23		0.244
* Significant at the 0.1 level (one-tailed); ** significant at the 0.05 level (one-tailed); *** significant at the 0.05 level (two-tailed).					

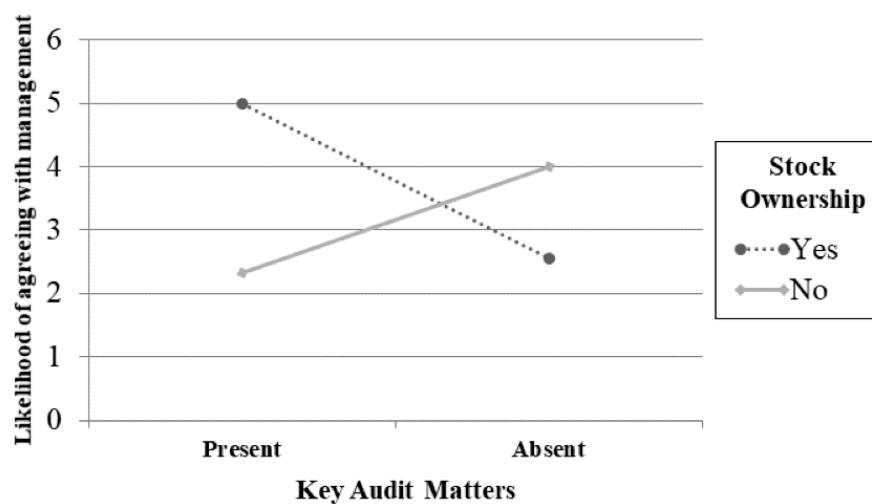


Figure 2. Interaction term.

We found a significant difference between the decision of stock-owning members receiving an audit report including KAMs and the group receiving an audit report without KAMs ($t = -2.15, p = 0.037$). The results show that stock-owning directors make a less conservative decision if KAMs are present (mean = 5.00) than if they are absent (mean = 2.55). This result supports H1a, indicating that stock-owning directors decide differently based on their incentives and, in this context, that a KAM disclosure seems to help legitimize a more self-serving decision. While the participants are mainly indifferent to whether the AC is generally responsible for informing the public about potential risks²³, they are aware of the increased attention on their work due to the disclosure of KAMs and the potential damage to their reputation if they make a less conservative decision in this scenario²⁴, as the overall reactions of the participants to a set of post-experimental questions show. Accordingly, it can be concluded that it is the disclosure of KAMs and not only the informational content that persuades AC members to make their decisions. As such, KAMs can be interpreted to be disclaimers that inform investors and thereby protect them from a reputational loss if a less conservative but self-serving decision is made.

Furthermore, the test results show that non-stock-owning AC members are more likely to vote for the adjustment, i.e., prefer more conservative accounting if this issue is disclosed as a KAM in the auditor's report (mean = 2.33) to a standard audit report without KAMs (mean = 4.00). Because the participants agreed that the disclosure of KAMs in the auditor's report discloses the supervisory board's work to the public²⁵, it can be concluded that this effect occurs due to the increased disclosure. However, the contrast test is not statistically significant ($t = 1.38, p = 0.174$); thus, H1b is not supported. As such, even if the direction of the results might indicate that non-stock-owning leads to less compromised decision making, the results could also imply that public disclosure such as KAM is not relevant, but the existence of the accounting problem is motivating for conservative accounting.

4.2. Open Text Field

A total of 21 participants (31.3%) used the open text field to comment on their decisions. Only stock-owning directors performed this action; this might support our theoretical reasoning as such stock owning might lead AC members to feel the need to explain their (unpopular) accounting preferences. In contrast, the non-answering by non-stock-owning AC members might highlight that they are more confident with respect to their accounting preferences. Overall, this supports our main findings related to stock owning. Out of the stock-owning participants, 13 belonged to the no-KAM condition and 8 to the KAM condition. While four participants of the no-KAM condition mentioned a conflict of interest and explained that they would agree with the auditor to avoid being blamed for their shareholding, only one participant in the KAM condition did the same. This finding can be interpreted in support of our main results, indicating that for stock-owning directors, this dilemma is not present if a KAM disclosure offers them the possibility of compensation. A total of three participants in each group preferred a conservative decision, referring to the predominant—in Germany—principle of prudence. This highlights the importance of investigating the effect of KAMs in settings different from the US. German accounting is dominated by the prudence principle, which has a huge impact on accounting preferences. Our additional qualitative findings support this notion. Furthermore, three participants explained that it was difficult to decide based on the presented information. We make use of this aspect and mention it as a limitation in our conclusion below.

5. Conclusions

Various standard setters introduced KAMs in auditors' reports to increase the transparency of auditors' reporting for investors and other addressees. Recent research has focused on the potential effects of KAMs on both professional and nonprofessional investors, auditors, and managers. We extended the existing research by focusing on the impact of KAMs on the accounting preferences of ACs.

We conducted an experiment with members of supervisory boards, serving as AC members, that were asked to decide on an accounting issue. We manipulated the auditor's report (KAMs present vs. KAMs absent) and the stock ownership of a fictitious company (yes vs. no), assuming the existence of an interaction between KAMs and stock ownership.

In detail, we assumed that non-stock-owning AC members tend to prefer a more conservative accounting approach if a KAM is disclosed compared to a KAM not being disclosed. The reason for this is that financially independent directors are likely aligned with the interests of financial statement users, which is based upon the theories of helping behavior and social responsibility norms. When KAMs are disclosed in an audit report, the independent directors' sense of duty to review the disclosed issues is strengthened because they are aware that investors rely on this information and feel more accountable for ensuring the reliability and reasonability of these aspects (Kang 2019). However, our non-significant results imply that additional public disclosure of an existing accounting problem might not be necessary to result in more conservative accounting decisions.

We assume that stock-owning AC members tend to prefer a less conservative accounting approach if a KAM is disclosed compared to a KAM not being disclosed and use KAMs as disclaimers to legitimize a more self-serving decision.

Our results show that stock-owning AC members are more likely to prefer a less conservative accounting approach when KAMs are included in an auditor's report than when they are not. Stock compensation is a personal incentive that might impact how deeply AC members feel responsible for helping investors. In this context, KAMs can work differently from other measures of transparency (e.g., internal discussions included in minutes of board meetings) and serve as disclaimers, legitimating a more self-serving decision by informing the investing public about a potential inaccuracy and a higher risk of an accounting issue.

Our study is not without limitations. First, the statistical power of our results is limited due to the small sample size. It is possible that our results do not reflect a real effect (Button et al. 2013) or that the observed effects would not occur with a larger sample (Simmons et al. 2011). Therefore, the statistical validity of our results might be weak. On the one hand, the results are more realistic, given the participation of incumbent supervisory board members; on the other hand, it is difficult to acquire a group of such high-level participants. Furthermore, we feel that our additional textual analysis of respondents' answers supports our findings. The involvement of non-AC supervisory board members, while valuable for enhancing the study's real-world applicability, introduces potential biases. As non-AC supervisory board members may have other perspectives, experiences, and responsibilities distinct from audit-educated AC members, their decision making may weaken our results.

WeW isolated the effects of KAMs and stock ownership on the accounting preferences of ACs, but we ignored other aspects that might influence directors' preferences, such as personal characteristics, which are hard to measure. Third, it is not possible to simulate realistic conditions, which are much more complex than experimental cases, through a fictitious case. We recognize that factors such as gender diversity, industry-specific expertise, and meeting frequency can significantly influence the decision-making processes of AC members. Although these characteristics are not the primary focus of this study, they are integral to a comprehensive understanding of AC effectiveness. Gender diversity, for instance, has been shown in prior research to contribute to diverse perspectives, potentially leading to more balanced and informed decisions within AC discussions (e.g., Chijoke-Mgbame et al. 2020). Similarly, industry-specific knowledge equips AC members with insights that enhance their capacity to identify and address unique challenges within their sector, potentially improving KAM-related deliberations (e.g., Alhababsah and Yekini 2021). Regular meeting frequency, on the other hand, fosters continuous engagement, facilitating timely and responsive AC actions (e.g., Stewart and Munro 2007).

However, our study centered on the foundational aspects of AC independence and general functionality, as they constitute essential elements in establishing a controlled and focused experimental framework. By concentrating on these core elements, we aimed to isolate and assess their impact on AC effectiveness without the added complexity of numerous variables. This approach balanced the necessity for experimental simplification with a recognition of the multifaceted nature of AC decision making in practice. Thus, while our experimental design prioritized independence and functionality, we acknowledged that a more exhaustive exploration of AC effectiveness would require a multi-dimensional perspective encompassing these additional influential factors.

Our participants were from Germany and belonged to German companies, being representative of European participants. The results might be different using participants of the Anglo-American one-tier system. Therefore, future research might use participants of one-tier governance systems to determine potential differences between the two governance systems. Furthermore, future research could focus on audit committee member from different industries as well as the effects of different KAM types. Alternatively, archival data could be used to simulate realistic conditions. Another line for future research is to investigate what other factors might change the mechanism that causes KAMs to affect the decision behaviors of different stakeholder groups. Additionally, tracking AC members' accounting preferences across multiple audit cycles and financial conditions could reveal the durability of these effects over time, offering valuable insights for future research into AC behavior and audit quality.

Our results are of particular interest to the standard setters and practitioners who deal with KAMs in a two-tier governance setting where accounting preferences of decision-makers are impacted by the dominant prudence principle in national GAAP. It is important to understand that disclosure efforts do not necessarily improve financial reporting quality but are part of the decision-making process of responsible persons and are influenced by other factors, such as independence or, rather, stock ownership. This might be also of interest for academic educators teaching new disclosure requirements meant to decrease transparency.

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Appendix A. Experimental Material—Manipulation of Stock Ownership

1. Stock-ownership
2. "You currently own Food AG shares, and your share ownership is significant to your personal investment portfolio."
3. Non-Stock-ownership
4. "You do not currently own shares of Food AG in your personal investment portfolio."

Appendix B. Experimental Material—Manipulation of Independent Auditor’s Report

Independent auditor’s report

To Food AG

Audit Opinion on the Consolidated Financial Statements

We have audited the consolidated financial statements of Food AG, Düsseldorf, and its subsidiary (the Group), which comprise the consolidated statement of financial position as of 31 December 2017, and the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from 31 January 2017, to 31 December 2017, and notes to the consolidated financial statements, including a summary of significant accounting policies.

According to § (Article) 322 Abs. (paragraph) 3 Satz (sentence) 1 zweiter Halbsatz (second half sentence) HGB (“Handelsgesetzbuch”: German Commercial Code), we state that, in our opinion, based on the findings of our audit, the accompanying consolidated financial statements comply, in all material aspects, with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB and give a true and fair view of the net assets and financial position of the Group as of 31 December 2017, as well as the results of operations for the financial year from 31 January 2017, to 31 December 2017, in accordance with these requirements.

Basis for Audit Opinion on Consolidated Financial Statements

We conducted our audit in accordance with Sec. 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW). We conducted an audit of the consolidated financial statements in supplementary compliance with International Standards on Auditing (ISA).

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from 31 January 2017, to 31 December 2017. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon, we do not provide a separate audit opinion on these matters.

Figure A1. *Cont.*

1) Recoverability of the carrying amount of goodwill

The risk—In the consolidated financial statements of Food AG as of 31 December 2017, goodwill of EUR 12 million is reported. In performing the impairment test for goodwill, which is conducted annually, the carrying amounts of the respective cash-generating units are compared with their respective recoverable amounts. The recoverable amount is determined at Food AG based on fair value and lower costs to sell. For this purpose, fair value is determined using a discounted cash flow model. Future cash flows are discounted using the weighted average cost of capital of the respective cash-generating unit. This measurement is highly dependent on estimates of future cash flows as well as on the cost of capital used and therefore subject to considerable uncertainty.

Our reaction

- Evaluation of the methodical approach
- Verification of calculation procedures
- Assessment of the appropriateness of assumptions such as future cash flows, perpetuity growth rates and discount rates
- Comparison with the current budget for the years 2018–2020 drawn up by management and approved by the supervisory board

2) Provisions

The risk—Food AG is involved in legal and out-of-court proceedings with public authorities, competitors, and other parties. These risks give rise to legal risks, particularly in the areas of product liability, tax law, and environmental protection.

Whether a pending legal dispute makes the recognition of a provision to cover the risk necessary and, if so, to what extent is determined to a large extent by estimates and assumptions by management.

In particular, a product-related dispute concerning the product “Fly High” was of particular significance from our point of view because it represents a material amount of other provisions (5 Mio. EUR).

Our reaction

- Assessment of the process established to ensure the recognition, the estimate of the outcome of the proceedings, and the accounting presentation of a legal dispute.
- Discussions with the company’s internal legal and tax department
- Making available the development of material legal disputes, including the estimates by management with regard to the possible outcomes of proceedings in writing
- Obtaining external attorney certificates and discussions with external experts in case of material legal disputes

[...]

Düsseldorf, February 19 2018

MIHO AG

Wirtschaftsprüfungsgesellschaft

Figure A1. Auditor’s report including KAMs.

Independent auditor's report

To Food AG

Audit Opinion on the Consolidated Financial Statements

We have audited the consolidated financial statements of Food AG, Düsseldorf, and its subsidiary (the Group), which comprise the consolidated statement of financial position as of December 31, 2017, and the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 31, 2017, to December 31, 2017, and notes to the consolidated financial statements, including a summary of significant accounting policies.

According to § (Article) 322 Abs. (paragraph) 3 Satz (sentence) 1 zweiter Halbsatz (second half sentence) HGB ("Handelsgesetzbuch": German Commercial Code), we state that, in our opinion, based on the findings of our audit, the accompanying consolidated financial statements comply, in all material aspects, with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB and give a true and fair view of the net assets and financial position of the Group as of December 31, 2017, as well as the results of operations for the financial year from January 31, 2017, to December 31, 2017, in accordance with these requirements.

Basis for Audit Opinion on Consolidated Financial Statements

We conducted our audit in accordance with Sec. 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW). We conducted an audit of the consolidated financial statements in supplementary compliance with International Standards on Auditing (ISA).

[...]

Düsseldorf, February 19 2018

MIHO AG

Wirtschaftsprüfungsgesellschaft

Figure A2. Standard audit report (without KAMs).

Notes

- ¹ This amendment to auditor reporting was established by standard setters and audit regulators worldwide, including the International Auditing and Assurance Standards Board (IAASB), the Public Company Accounting Oversight Board (PCAOB), the European Commission (EC), and the Financial Reporting Council (FRC). KAMs are defined as "those matters that, in the auditor's professional judgment, were of most significance in the audit of the financial statements of the current period" ([International Auditing and Assurance Standards Board \(IAASB\) \(2015\)](#), 11 (a)).
- ² We acknowledge that differences in governance structures, such as Germany's two-tier model compared to the single-tier models commonly found in the US or UK, may influence the generalizability of our findings. A comparative, cross-cultural study would be beneficial in evaluating the applicability of KAM management and stock ownership dynamics across various governance frameworks.
- ³ Similar instruments are critical audit matters (CAMs) in the United States and justifications of assessments (JOAs) in France.
- ⁴ To the best of our knowledge, the only studies concerning KAMs that focus on an AC are (1) the experimental study by [Kang \(2019\)](#), focusing on the joint effect of investor sophistication and the prospect of CAM disclosure on AC members' propensity to ask challenging questions about management's significant accounting estimates, and (2) archival studies that examine whether

audit committee characteristics in terms of gender, accounting and finance backgrounds, industry expertise, and legal expertise affect the number and content characteristics of KAMs reported (Bepari 2023; Boonlert-U-Thai and Suttipun 2023; Velte 2018).

In line with prior research, we define financial independence as a lack of compensation via stocks at the company for which one serves as a member of the AC, remaining financially unaffected by the company's performance (Bédard et al. 2004). We therefore use stock ownership as a proxy for directors' (financial) dependence.

The results of this study indicate a significant reduction in both forecast errors and dispersion for companies that disclose KAMs compared to those that do not.

The quality of financial reporting in these studies is mainly evaluated according to the extent of earnings management activities.

This prediction is empirically supported by a post-experiment question (p. 19).

Approval has been granted by the institution at which the experiment took place.

Eleven participants from the data collection via Email were screened out due to a lack of experience as a non-executive director. Moreover, we received 47 responses from participants who explained why they were not willing to participate. Thus, the actual response rate was 11.5% and therefore much higher than the participation rate.

Actually, 14 persons participated by using the the link to the survey published in the cover letter to *Audit Committee Quarterly*, but three participants were screened out due to lack of experience as non-executive directors and were therefore not counted as participants.

To become a subscriber of the *Audit Committee Quarterly*, one has to be part of a supervisory board or management. Furthermore, we only used personal e-mail addresses. The screening-out condition was an additional security step to ensure participants had board member experience.

For simplicity, any additional numerical financial information, such as balance sheet and income statement data (except for the goodwill amount), were not included in the description.

In Germany, a much more detailed audit report must be issued to management and the supervisory board, according to Paragraph 321 of the German Commercial Code. It is important to differentiate between the independent auditor's report that is publicly available and the auditor's report to AC that is only available to a company's legal representatives. Both reports are provided by the auditor at the end of an audit.

Prior research indicates the standards audit report as a default setting to serve as a meaningful control group when measuring transparency effects (Dennis et al. 2019).

Furthermore, it was made clear that the disputed amount was immaterial and that any resolution of the issue would not impact the content or form of the audit report. Otherwise, if the discussed amount was above the materiality threshold, the participants would have been unable to make their decisions without jeopardizing the issuance of an unqualified audit opinion (Rose et al. 2013). Participants were asked whether the described issue could result in a qualified audit opinion due to its materiality. The results were not significantly different for the KAMs vs. no-KAMs participants ($t = 0.07$, $p = 0.948$).

Surveys with auditors show that about half of their respondents indicated that an audit committee is involved in resolving contentious issues with management (Cohen et al. 2010); one third of audit partners indicated that they discussed significant disagreements they had with management with an audit committee (Cohen et al. 2002). Therefore, consistent with Rose et al. (2013), we chose the likelihood of siding with management or the external auditor in case of a disagreement between these two parties as the dependent variable to measure the participants' attitudes concerning this accounting issue.

We defined failure as choosing the "wrong" side of the Likert scale. Answers of four (the mean scale) were not excluded.

The failure rate on the manipulation check questions is comparable to other studies (e.g., Quick and Schmidt 2018; Ratzinger-Sakel and Theis 2019).

We repeated our analysis by including only participants who answered all manipulation and attention-check questions correctly. The results of the ANOVA (statistical significance of the interaction term) remained the same, which is why we included participants who missed the attention-check questions.

We ran ANCOVA models, where we included demographic items as covariates. None of the demographic variables correlated with our dependent variable, and therefore none were added to our model as covariates.

Using the full sample including the manipulation check failures (67 answers) leads to the following results: model: $p = 0.207$; KAMs: $p = 0.493$; stock ownership: $p = 0.165$; interaction term: $p = 0.090$. There exist significant differences only between the groups receiving an audit report with KAMs (stock ownership vs. no stock ownership) ($p = 0.037$), while all other differences remain non-significant. Thus, our hypotheses are not supported.

The overall mean (standard deviation) on a 5-point Likert scale with endpoints 1 ("strongly agree") to 5 ("strongly disagree") is 2.67 (1.40), indicating that the participants are mainly indifferent to whether the AC is responsible for informing the public about potential risks. We do not find significant differences between the groups' evaluation of this statement ($p > 0.1$).

The overall mean (standard deviation) on a 5-point Likert scale with endpoints 1 ("strongly agree") to 5 ("strongly disagree") is 2.43 (1.25), indicating that most of the participants fear a reputational loss if they refuse the higher impairment amount. This result reflects the general financial statement accountability toward the investors. We do not find significant differences between the groups' evaluation of this statement ($p > 0.1$).

- 25 The overall mean (standard deviation) on a 5-point Likert scale with endpoints from 1 (“strongly agree”) to 5 (“strongly disagree”) is 2.03 (0.98), emphasizing the relevance of KAMs and especially their influence on an AC, supporting a standard setter’s intention to provide financial statement users a basis to further engage with the AC (ISA 701).

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