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# The effect of ISA 701 on audit quality, audit costs, and corporate governance ´ s mediating effect

Masteroppgave i Regnskap og revisjon

Veileder: Mahmoud Hosseinniakani

Medveileder: Anders Berg Olsen

Mai 2022



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Norges teknisk-naturvitenskapelige universitet  
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Kunnskap for en bedre verden



## Preface

This master thesis represents my final assignment as a student of the master's program in Master of Accounting and Auditing at NTNU Business School. This thesis amounts to 30 credits.

The main objective of this master thesis is to analyze if the implementation of ISA 701 has led to increased audit quality and costs by comparing a pre-period from 2012 to 2015 to a post-period from 2016 to 2019. The thesis examines four different study models to investigate the consequences of the new auditing requirement introduced by ISA 701. The process of working with this thesis has given me an academic dive into the costs and benefits of implementing new auditing standards.

I would like to thank my supervisors, Mahmoud Hosseinniakani and Anders Berg Olsen, for valuable guidance and constructive feedback throughout the process of this thesis.

The contents of this master thesis reflect the author's personal views and are not necessarily endorsed by NTNU Business School. The content of this thesis is solely at the author's expense and responsibility.

Trondheim

24.05.2022



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Heidi Treu Os



## Abstract

This thesis aims to examine whether introducing ISA 701 has led to improved audit quality and audit costs for Swedish listed companies. ISA 701 introduced a new reporting regime that requires an auditor to disclose key audit matters in the audit report to enhance the communicative value of the report. The thesis is a quantitative study focused on examining the costs and benefits of implementing a new auditing standard, with firm-year observations from 2012 to 2019. Audit quality is proxied by the absolute value of abnormal accruals and the likelihood of a company reporting a small earnings increase. Furthermore, audit costs are proxied by audit fees and the costs associated with the delay between the fiscal year-end and the date of the publication of the audit report.

This thesis exploits the auditor reporting changes in Sweden and observes a significant decrease in audit fees and a significant increase in the audit delay. Indeed, the clients benefit from this delay, which implies greater auditor effort, and the audit fees decrease. However, the greater auditor effort did not reflect the proxies of audit quality used in this thesis. Moreover, additional analyses revealed that disclosure of more key audit matters than the calculated mean is associated with a significant increase in both audit fees and the audit delay, but not higher audit quality. The thesis also studies the mediating effect of corporate governance on audit quality and audit costs. By examining the interaction between the implementation of ISA 701 and whether a company has an audit committee or not, the thesis does not find significant evidence that corporate governance affects either audit quality or audit costs.

## Sammendrag

Formålet med denne masteroppgaven er å undersøke om implementeringen av ISA 701 har ført til økt revisjonskvalitet og økte revisjonskostnader for svenske børsnoterte selskaper. ISA 701 introduserte et nytt rapporteringsregime, som stiller krav til at revisor skal omtale sentrale forhold ved revisjonen for å øke informasjonsverdien til revisjonsberetningen.

Masteroppgaven er en kvantitativ studie som fokuserer på kostnader og nytte av å innføre en ny revisjonsstandard, i perioden fra 2012 til 2019. Revisjonskvalitet måles ved absoluttverdien til unormale periodiseringer og sannsynligheten for at et selskap vil rapportere en liten inntektsøkning. Revisjonskostnadene måles ved revisjonshonoraret samt kostnader knyttet til forsinkelse av revisjonsberetningen. Sistnevnte beregnes ved å se på antall dager mellom regnskapsårets slutt og datoen for offentliggjøring av revisjonsberetningen.

Masteroppgaven undersøker endringene i revisjonsberetningen i Sverige og finner en signifikant nedgang i revisjonshonoraret samt en signifikant økning i antall dager mellom regnskapsårets slutt og offentliggjøring av revisjonsberetningen. Klienter drar fordel av denne forsinkelsen da dette tyder på økt innsats fra revisorene, samtidig som revisjonshonoraret reduseres. Økt innsats fra revisor reflekteres derimot ikke i revisjonskvaliteten. Masteroppgaven finner også evidenser som peker i retning av at dersom revisor omtaler flere sentrale forhold ved revisjonen enn det kalkulerte snittet, så gir det en signifikant økning i revisjonskostnadene. Det er derimot ingen signifikante endringer i revisjonskvaliteten. Masteroppgaven analyserer også effekten av corporate governance i sammenheng med implementering av den nye revisjonsstandard. Ved å se på interaksjonen mellom implementeringen av ISA 701 og om et selskap har revisjonskomite, så tilsier resultatene at det ikke er noen signifikante endringer i revisjonskvalitet eller revisjonskostnader.



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## Abbreviations

CAM	Critical Audit Matters
EBIT	Earnings Before Interest and Taxes
ERC	Earnings Response Coefficient
EU	The European Union
FRC	The Financial Reporting Council
IAASB	The International Auditing and Assurance Standard Board
ISA	The International Standard on Auditing
JOA	Justification of Assessments
KAM	Key Audit Matters
PCAOB	The Public Company Accounting Oversight Board
POB	Public Oversight Board
SEC	The Securities and Exchange Commission
UK	The United Kingdom

## 1. Introduction

The complexity of financial statements has increased during the last decades, including uncertain estimates based on management's subjective perceptions (Christensen et al., 2012). At the same time, the content of the audit report has changed relatively little, even though the purpose of an audit is to "provide financial statement users with an opinion by the auditor on whether the financial statements are presented fairly, in all material respects [...]" (ISA 200.3). Still, the audit report only gives a standardized "pass or fail" statement with an unqualified opinion, providing stakeholders with little information about the company beyond the auditor's opinion. The global financial crisis has addressed a need for auditors to provide more relevant information in the audit report based on the performed audit (IAASB, 2013). In addition, stakeholders desired more significant information to be communicated by the auditors (IAASB, 2015a). Therefore, the International Auditing and Assurance Standard Board (IAASB) implemented the International Standard on Auditing (ISA) 701, which requires all listed firms to disclose key audit matters (KAM). According to the auditor's judgment, key audit matters are the most significant matters. This study aims to analyze the effect of ISA 701 on audit quality, audit costs, and the mediating effect of corporate governance. ISA 701 provides a framework for auditors to determine the key audit matters, which should be specific to the entity to give relevant information to users (IAASB, 2015a). Therefore, disclosure of key audit matters may increase stakeholders' confidence in the audit and the financial statements (IAASB, 2015a). ISA 701 became effective for audits of financial statements for fiscal years that ends on or after December 15<sup>th</sup>, 2016. The reporting of key audit matters in Europe is similar to the requirement from the Public Company Accounting Oversight Board (PCAOB) to disclose critical audit matters (CAM) in the United States (Gutierrez et al., 2018).

Several studies have examined the relationship between key audit matters and audit quality. Bédard et al. (2019) examined the impact of the first-time implementation of "Justifications of Assessments" (JOAs) and new JOAs in subsequent years in France. They did not observe a significant effect on audit quality, fees, or the audit report lag. Li et al. (2019) used data from New Zealand and discovered a significant increase in audit quality and fees. Zeng et al. (2021) conducted a study with Chinese data, and their analyses revealed that audit quality improved following the requirement to disclose key audit matters. Reid et al. (2019) found that the United Kingdom's (UK) new reporting regime is associated with improved financial

reporting quality due to a decrease in abnormal accruals. As for audit costs, they did not find any significant change in audit fees or audit delay. On the other hand, Gutierrez et al. (2018) also explored the UK. Their analyses showed no evidence of higher audit quality or costs after the expanded auditor report requirement. One potential reason for the UK's mixed results is the new standard issued by Financial Reporting Council (FRC) that complemented the changes made to the UK Corporate Governance Code in October 2012 (Gutierrez et al., 2018). These changes require audit committees to issue a separate report on critical accounting matters and a general statement by the board that earnings are "fair, balanced and understandable" (Francis & Li, 2019). The purpose of the FRC's contemporaneous changes to the UK Corporate Governance Code and the new auditing standard was to reinforce the effectiveness of the stewardship model (Gutierrez et al., 2018). Furthermore, the studies from the UK used different methods, which may explain the mixed results.

This study examines the effect of ISA 701 on audit quality, audit costs, and the mediating effect of corporate governance from 2012 to 2019. High-quality audits increase the credibility of the financial statements and can protect the economic interest of the owners by enhancing the value of the financial statements (Sulaiman, 2017). It is expected that ISA 701 leads to higher audit quality since disclosure of key audit matters may make the auditors more accountable for their work. As a result of this, auditors perform additional procedures to improve the audit quality (Gold et al., 2020). Moreover, disclosure of key audit matters can improve the communicative and informative value of audit reports (Suttipun, 2021). The main proxies for audit costs are audit fees and costs related to the delay between the fiscal year-end and the date of the publication of the audit report. The requirement to disclose key audit matters may lead to higher audit costs due to the increased workload for the auditors and a longer delay before the audit report is published. In addition, ISA 701 requires that auditors directly communicate key audit matters with those in charge of governance, which motivates this study to examine the mediating effect of corporate governance. Corporate governance deals with how stakeholders can exercise control over the management, such that their interests are protected (John & Senbet, 1998). Previous studies observed that firms with strong governance mechanisms are less likely to conduct earnings management than firms with weak mechanisms (Tang & Chang, 2014). Moreover, previous studies conclude that audit committee independence has a significant and positive association with audit fees (Abbott et al., 2003). Therefore, corporate governance may positively affect both audit quality and audit costs.

The context of this study is a Swedish setting, using a sample of Swedish companies listed on Nasdaq Stockholm, the Swedish Stock Exchange. This study adds new evidence from a different context and period than previous studies and examines corporate governance, which has not previously been associated with the implementation of ISA 701. In Sweden, corporate governance characteristics include concentrated ownership with controlling shareholders and high transparency toward shareholders (Achtenhagen et al., 2018). Sweden is an appropriate setting to study since Swedish auditors must follow IAASB's standards on auditing, and Sweden was an early adopter of ISA 701 (Christofferson & Grönberg, 2018). In addition, most of the Swedish listed companies have an English annual report, compared to other countries in the European Union (EU), which gives a large sample to analyze. Last, Swedish companies are not obligated to have an independent audit committee, making it possible to compare companies with and without an audit committee to observe the effect of corporate governance. Since ISA 701 was effective from December 2016, this study compares data from four years before and four years after the implementation.

Using a balanced sample of listed companies in Sweden from 2012 to 2019, the study did not observe a significant change in abnormal accruals. On the other hand, the analysis provides evidence that the likelihood of a company reporting a small earnings increase significantly increased. As for the audit costs, the analysis showed a significant decrease in audit fees and a significant increase in the audit delay after the implementation of ISA 701. The study also conducted an additional analysis to examine the effect of the number of disclosed key audit matters. The results show that if an auditor disclose more key audit matters in the audit report than the mean of Swedish companies, there were no significant changes in audit quality, but the audit costs significantly increased. These results may be due to higher auditor efforts. Lastly, the study investigates the relation between one corporate governance function and audit quality and costs. In particular, the study examines if the presence of an audit committee affect audit quality and costs. However, the study fails to find evidence that corporate governance influences any of the two parameters.

By showing that disclosure of key audit matters in Sweden has significant consequences on the propensity to report a small earnings increase and audit costs, the study extends previous studies by examining the effect of a regulatory change regarding the content and format of the audit report (Reid et al., 2019; Gutierrez et al., 2018; Li et al., 2019; Bédard et al., 2019; Zeng

et al., 2021). The study also contributes to the existing literature by studying the effect of key audit matters disclosures in a new context. This augments similar research that examines the consequences of ISA 701 in a European setting. Regarding the significant influence, the number of key audit matters disclosed has on audit costs, the results suggest that auditors may be pricing the audit due to their increased liability and workload since they are disclosing more information. Moreover, this is the first study to examine the mediating effect of corporate governance on key audit matters, which may contribute to a broader understanding of the corporate governance mechanisms.

The remainder of the paper proceeds as follows. Section 2 provides the institutional setting, while section 3 provides a literature review and hypotheses development. Section 4 describes the research method, and section 5 outlines the results of the regression analysis. Section 6 provides an additional analysis. Finally, section 7 provides the discussion and conclusion.



## 2. Institutional background

### 2.1 Key audit matters (ISA 701)

Since accounting estimates are subjective, they might cause concerns for auditors and cause a decrease in stakeholders' trust in auditors (Christensen et al., 2012). Even though financial statement users often value the auditor's opinion, they show little interest in reading the actual audit report due to the standardized format (Christensen et al., 2012). Traditional audit reports follow a standardized format which offered low communicative value (Suttipun, 2021).

Therefore, users of the financial statements have called for more entity-specific and relevant information in the audit reports (Kumar & Zattoni, 2013). ISA 701 requires auditors to describe which accounting estimates are considered key audit matters and explain the appropriate audit process. In addition, auditors must describe how they address these matters and why they are considered important in the audit. These requirements make the audit report tailored to each company by highlighting engagement-specific information. Auditors should vary the key audit matters according to each engagement, even if the engagements are tied to the same industry. This way, the key audit matters will be specific to the audit. In other words, auditors now provide publicly, available, detailed client-specific information.

Disclosure of key audit matters may improve the informativeness of the audit report and direct the auditor's attention to the management's actions and judgments. ISA 701 provides guidelines for determining if a matter is significant for the audit. However, the standard gives little guidance for determining the number of key audit matters to be reported. Therefore, the number of key audit matters and which matter to report are based on the auditor's professional judgment (Sirois et al., 2018).

IAASB and EU regulators believe that implementing key audit matters will lead to enhanced transparency since the professional judgment process and auditors' professional competence will be presented to the public. Furthermore, this new requirement may lead to enhanced information value and meet financial statement users' informational needs. Prior literature has observed that potential benefits of increased transparency include an increase in individuals' accountability for decision-making and reduced information asymmetry (Gold et al., 2020). In addition, greater transparency reduces the likelihood of earnings management activities due to the market participants' higher risk of detection (Gold et al., 2020). Reporting key audit matters can direct stakeholders' attention to important issues of the audit engagement and may hold auditors more accountable for their actions during an audit engagement. This will give the auditors greater responsibility to present an accurate assessment and expose auditors to

increased litigation risk (Suttipun, 2021). Stakeholders might receive more valuable information about the audit through the disclosures of key audit matters, which can increase stakeholders' confidence in the financial statements. At the same time, there is a concern that financial statement users blindly rely on the information from key audit matters and use this information as a substitute for understanding the financial statements (Sirois et al., 2018).

## 2.2 The Swedish setting

Auditors in Sweden must comply with both EU regulations and the IAASB. Due to this, auditors of listed companies in Sweden must include key audit matters in the audit report. This requirement applies to all audit reports of listed companies with the fiscal year-end on or after 15<sup>th</sup> December 2016. Before this, matters that the auditor considered to be of significance were only disclosed at the Annual General Meeting and not in the audit report (Christofferson & Grönberg, 2018). The most common key audit matters in the Swedish setting are the valuation of intangible assets and revenue recognition. These matters are an important area of focus for investors since these matters may affect companies' future cash flow.

According to the European Parliament and the Council of the European Union Directive 2013/34/EU, publicly traded companies in a regulated market must include a corporate governance statement in their management report (Achtenhagen et al., 2018). The Swedish Corporate Governance Code ("the Code") defines good corporate governance as "ensuring that companies are run sustainably, responsibly and as efficiently as possible on behalf of their shareholders" (Board, 2020). Corporate governance in Swedish listed companies is regulated by both written rules and generally accepted practices. These regulations include the Swedish Companies Act ("the Act") and the Swedish Annual Accounts Act, with support from the Code (Board, 2020). The Code complements legislation and regulations to help listed companies practice good corporate governance. However, the Code is just a set of norms and it is not mandatory for Swedish listed companies to follow the Code. The Act contains regulations about the organization of companies, stating that companies must have three decision-making bodies, hence the shareholder's meeting, the board of directors, and the chief executive officer. The statutory auditor works as a control body. The shareholders' meeting is the highest decision-making body and can decide on any company matter that does not fall within the competence of another corporate body (Board, 2020).

Ownership structure in European countries differs significantly from countries like the United States. Ownership in Sweden often consists of a single or a small number of major shareholders, while listed companies in the United States have a diverse ownership structure (Board, 2020). Furthermore, shareholders in Sweden often play an active ownership role by, for example, being seated on the board of directors. Through this, shareholders take responsibility for the company. The board of directors is an essential mechanism in corporate governance since they are responsible for a company's organization and management of the company's business (Board, 2020). In line with the Code, at least two board members must be independent of the company's major shareholders to ensure responsible ownership, and the General Assembly appoints the firm's external auditor (Board, 2020).

ISA 701 also requires auditors to communicate the potential audit matters with the audit committee. The audit committee is a complementary monitoring mechanism that improves management disclosures of significant accounting estimates (Hosseinniakani et al., 2021). Therefore, audit committees are expected to have a key role in ensuring high standards in financial reporting (Collier & Zaman, 2005). A survey from 1998 studied the adoption rate of audit committees in Europe discovered that, based on 65 major European companies from eight different countries, Sweden had the lowest adoption rate (Collier & Zaman, 2005; Keegan and DeGeorge, 1998, pp.116-117). Today, Sweden is considered to be a role model regarding its high adoption of corporate governance (Achtenhagen et al., 2018). Moreover, Swedish companies can choose whether they will have an audit committee or not. In the absence of an audit committee, the entire board is responsible for carrying out the audit committee's tasks. If the board has established an audit committee, most of the committee's members must be independent of the company and its executive management (Board, 2020).

### 3. Literature review and hypotheses development

#### 3.1 Literature review

The value of auditing originates from its ability to assure that the clients' financial statements reflect the underlying economics (DeFond & Zhang, 2014). The purpose of the audit opinion is to provide reasonable assurance that the company's financial statements are fairly presented in all material respects (Segal, 2019). Auditors are required to apply professional judgment when expressing an audit opinion. Suppose a clean or unmodified opinion is given, no further confirmation from the auditor is required. This is because a clean audit report states that a fair presentation without any major material misstatements has been made. After the financial crisis in 2008, regulators and stakeholders questioned the value of the audit report and required changes in the report (Mock et al., 2013). There has been an expectation gap between what financial statement users expect the audit to deliver and what the auditors think the audit provides (Mock et al., 2013). This gap was even more visible after the economic crisis in 2008, and the value of the pass/fail model of the audit reports has been discussed. In addition, the information gap arises as "the difference between what users desire, and what is available to them through the entity's audited financial statements and the audit report" (Mock et al., 2013). As a result of these gaps, audit users demanded more transparency about the audit process and the audit report. This led to the PCAOB and the IAASB to request comments concerning the disclosure of additional information in the audit report that would be of interest to the users (Mock et al., 2013). The main changes in the audit report aim to increase audit transparency and reduce the information gap (Li et al., 2019). As a result, ISA 701 was implemented for the financial statements of all listed companies with fiscal year-end in 2016 and this requirement is one of the most significant changes to the audit report (Li et al., 2019). IAASB defines key audit matters as "those matters that, in the auditor's professional judgment, were of most significance in the audit of the financial statements [...]" (IAASB, 2015b). ISA 701 deals with the auditor's responsibility to disclose key audit matters in the audit report (IAASB, 2015b). The disclosure of key audit matters affects the perception of both the users and the auditors themselves. Stakeholders may perceive this requirement as placing more responsibility on the auditor by making the audit scope more comprehensive. The auditor must disclose key audit matters even when the audit leads to an unmodified opinion (Segal, 2019).

A growing body of literature have studied the effects of several new reporting requirements over the last years. First, Carcello and Li (2013) investigated the effects on audit quality and

audit fees after implementing the requirement for engagement partners to sign the audit report in the UK. The background for this requirement was to increase partner accountability and transparency. They did observe an increase in audit quality after introducing the requirement for partner signature. Reid et al. (2019) examined the relationship between the disclosure of key audit matters and the outcomes related to the audit in the UK setting. Reid et al. (2019) suggested that the new requirement may lead to more auditor effort during the audit process due to the increased sense of accountability for the auditors. Furthermore, this heightened sense of accountability can improve audit quality. The authors discovered that the new reporting requirements significantly improved audit quality but did not observe a significant increase in audit costs. On the contrary, Gutierrez et al. (2018) found no significant relationship between the new reporting regime and audit quality and costs in the UK setting. Li et al. (2019) examined the costs and benefits associated with the new reporting requirement in New Zealand. They observed that both audit quality and audit fees significantly improved upon implementing the new reporting regime. Bédard et al. (2019) examined the effect of "justifications of assessment" (JOAs) in France. Since JOAs include a summary of the auditor's assessments, procedures, and an auditor's opinion, these disclosures are equivalent to the disclosure of key audit matters (Gold & Heilmann, 2019). The auditors did not find a significant market reaction to the disclosure of JOAs in the first year after implementation or the disclosure of new JOAs in subsequent years. They observed similar results for audit quality and audit fees; hence the expanded audit report has no significant impact on the audit. These findings are inconsistent with the results reported by Reid et al. (2019) and Li et al. (2019). Lastly, Zeng et al. (2021) examined whether the key audit matters requirement improved audit quality in a Chinese setting and observed an improvement in audit quality after the new reporting regime. Furthermore, they discovered that when auditors communicate the reason for identifying an issue as a key audit matter, it "manifests more audit responsibility during the audit process" (Zeng et al., 2021).

Corporate governance often refers to "the set of mechanisms that influence the decisions made by managers when there is a separation of ownership and control" (Larcker et al., 2005). Corporate governance is a solution to the agency problem, which involves managers engaging in activities for their benefit rather than the benefits of the firm's shareholders (Chen et al., 2012). Agency conflicts increase the client's demand for third-party assurance, and this additional assurance can lead to higher audit quality. Furthermore, firms with greater agency costs are more likely to demand a higher quality audit and thus have lower non-audit fee

ratios (DeFond & Zhang, 2014). Earnings management occurs when the management makes an accounting decision to change the firm's bottom line (Mulyadi & Anwar, 2015). Corporate governance plays an essential role in constraining opportunistic earnings management and ensuring that managers act in the interest of shareholders (Tang & Chang, 2014). As a result, corporate governance is a mechanism to separate ownership and control.

## 3.2 Hypotheses development

### 3.2.1 Audit quality

Audit quality is the fundament in the audit market since the audit itself has no value if the stakeholders have no confidence in the assurance given (Segal, 2017). Traditionally, audit quality is defined as "The market-assessed joint probability that an external auditor incorporates their competencies to discover an error in financial statements. The auditor then reports this error through an independent judgment" (DeAngelo, 1981). With this definition, audit quality is based on the auditors' competencies and independence. Audit quality is challenging to measure since you cannot observe the amount of assurance provided. DeFond and Zhang (2014) argue that audit quality is determined by the relationship between the auditor supply and the client demand, meaning that audit quality depends on both the auditor and the client's incentives and competence. Therefore, DeFond and Zhang (2014) suggest that audit quality can be seen as "greater assurance that the financial statements faithfully reflect the firm's underlying economics, conditioned on its financial reporting system and innate characteristics." This definition reflects the auditors' broad responsibilities and acknowledges audit quality as a component of financial reporting quality. At the same time, there is no one-size-fits-all measure of audit quality. DeFond and Zhang (2014) argue that two methods can measure audit quality. The first way to measure audit quality is through output-based proxies, which attempt to measure the level of audit quality delivered. Moreover, input-based proxies are observable inputs such as auditor characteristics. Using audit quality measures across categories give researchers a clearer view of how their interest factors affect audit quality. In addition, DeFond and Zhang (2014) point out that input-based measures capture perceived audit quality and not actual audit quality.

Previous studies have provided inconclusive evidence on whether ISA 701 improves audit quality. Key audit matters are intended to enhance the quality of audit reports by increasing the communicative and informative value of the reports (Kitiwong & Sarapaivanich, 2020). Disclosure of key audit matters responds to users' demand for more information provided by

the auditor and draws users' attention to important matters. By doing this, users are better prepared to understand the financial statements and areas with significant risk. Moreover, disclosure of key audit matters leads to higher transparency since stakeholders get more insight into the audit process. As a result, financial statement users may increase their confidence in the audit and the financial statements. In addition, disclosing key audit matters may give auditors an incentive to gather more and better evidence regarding the relevant matters, increasing auditors' professional skepticism. Auditors are exposed to a high degree of litigation risk, and litigation against an audit firm can damage their reputation for the quality of their services (Seetharaman et al., 2002). Litigation risk is a motivational factor for auditors to report audit results as accurately as possible and give auditors an incentive to prepare higher-quality audits. Additionally, disclosure of key audit matters make the auditors feel more accountable for their work and perform additional procedures to improve the audit quality.

However, ISA 701 states that the auditor must report what they have done during the year, which may not influence the behavior of the management or the auditor. Moreover, disclosing key audit matters could put additional pressure on auditors, resulting in decreased audit quality (Li et al., 2019). From this point of view, ISA 701 may not lead to higher audit quality.

The first hypothesis is:

*H1: The implementation of key audit matters is likely to increase audit quality.*

### 3.2.2 Audit costs

Audit costs can be measured through audit fees and other costs due to a delay between the fiscal year-end and the publication of the audit report. Audit fees are expected to capture auditors' effort levels (DeFond & Zhang, 2014). It is expected that the new, expanded audit report will be more costly, both in resources and time. Previous literature also states that audit fees should be sensitive to litigation risk differences across client groups (Seetharaman et al., 2002). Disclosure of key audit matters is expected to require additional auditor effort to determine, prepare, document, and review the key audit matters in the audit report (Bédard et al., 2019). Therefore, auditors of firms with higher audit fees may disclose more specific key audit matters since these auditors put more effort into their client relationships (Christofferson & Grönberg, 2018). Auditors may also feel more accountable for the audit even though

disclosure of key audit matters does not necessarily require additional audit procedures. In addition, ISA 701 leads to higher transparency of the audit process. The increased transparency might lead to higher costs, as misstatements that are discovered in the future and made available to the public, increase both the reputational and litigation risks. Therefore, auditors may be pricing the audit services higher due to the increased auditor liability (Li et al., 2019). The disclosure of key audit matters improves audit transparency, leading auditors to be more cautious about audit risks, expanding the scope of substantive audit procedures and thereby increase audit costs (Li, 2020).

On the other hand, if the additional information imposed by ISA 701 require auditors to collect is information they already were examining under existing requirements, the auditor's workloads will not increase. In this scenario, the audit costs will not increase. Most of the additional information is not new and can be found in the auditor's summary for the audit committee (Reid et al., 2019). Furthermore, communicating key audit matters in the audit report does not change auditors' underlying responsibilities (IAASB, 2015a). As a result, it is not significantly more work for the auditor, and the audit costs will not increase with ISA 701.

The second hypothesis is:

*H2: The implementation of key audit matters increases audit costs.*

### 3.2.3 Corporate governance

Corporate governance is a dynamic and integrated approach to address stakeholders' financial, social, and economic concerns (Shan et al., 2022). Following the framework of DeFond and Zhang (2014), corporate governance is the demand side of audit quality. DeFond and Zhang (2014) found consistent evidence that strong corporate governance is associated with higher audit quality since corporate governance can create a higher level of control and transparency (Mulyadi & Anwar, 2015).

ISA 701 requires that auditors directly communicate key audit matters to those in charge of governance, either the board of directors or the audit committee. Audit committees were introduced as a reaction to corporate failures in the US and have later been accepted by European countries (Collier & Zaman, 2005). Audit committees have been highly pronounced following recent corporate scandals, such as Enron and WorldCom (Collier & Zaman, 2005). The Securities and Exchange Commission (SEC) and the Public Oversight Board (POB) have



stressed the role of the audit committee in providing active oversight of the financial reporting process and in monitoring the relationship between a firm's management and its external auditor (Abbott et al., 2003). An audit committee seeking a higher level of assurance could demand greater audit coverage (Abbott et al., 2003). By overseeing and strengthening the audit process, the audit committee contributes to higher quality audits, thereby reducing the risk of the auditor giving an incorrect audit opinion (Goodwin-Stewart & Kent, 2006). Moreover, one of the main functions of the audit committee is to safeguard the external auditor's independence and act as an internal control mechanism to monitor the audit process effectively (Al-Najjar, 2011). Independent auditors are less likely to influence their judgment by external factors, which may improve the audit quality (Carcello & Neal, 2003). Independence is considered an essential quality for an audit committee to fulfill its oversight role (Chtourou et al., 2001). An audit committee is independent if the committee is comprised entirely of outside, independent directors (Abbott et al., 2003). Audit committee performance should be of high quality when members are independent and have more governance and financial expertise (Carcello & Neal, 2003). Previous studies observed that audit committee independence was associated with lower levels of earnings management (Chtourou et al., 2001). Clients whose audit committees consist of independent members with more governance expertise are more effective in protecting the auditor from dismissal following the issuance of a going-concern report (Carcello & Neal, 2003). Therefore, an effective and independent audit committee is expected to improve audit quality.

Previous research observed contradictory arguments concerning the role of audit committees in earnings management. Beasley (1996) argues that the presence of an audit committee does not reduce the probability of earnings management. Still, Dechow et al. (1996) find evidence that audit committees are important in monitoring the management. DeFond and Jiambalvo (1991) support this evidence and argues that the possibility of overstating earnings is less likely in the presence of an audit committee. In addition, other studies argue that financial reporting quality is higher when firms have effective audit committees (Habbash, 2013). Moreover, some research outlines that companies without an audit committee have lower quality on their financial statements (Franck & Sundgren, 2012). The size of the audit committee is an important characteristic of the audit committee. DeFond and Zhang (2014) argue that increasing the audit committee size is not necessarily associated with higher audit quality since a larger board may be less efficient due to agency costs (Hermalin and Weisbach, 2003).

The third hypothesis is:

*H3: The mediating effect of corporate governance is positively associated with audit quality and audit fees.*

## 4. Methodology

### 4.1 Sample

Listed companies with a fiscal year-end on or after 15<sup>th</sup> December 2016 are obligated to comply with ISA 701 and report key audit matters in the annual report. The sample in this study consists of Swedish listed companies from 2012 to 2019. This is an eight-year period, with four years before and four years after the implementation of ISA 701. Panel A-F in Table 1 presents the sample of the different analyses. Some conditions were assumed to make the datasets as reliable as possible. First, each sample is generated by excluding observations missing complete data for both the pre-and post-periods, resulting in the sample only containing companies that existed before and after 2016. In addition, the datasets only include continuous firm-year observations to make the calculations for both the dependent variables and the control variables correct. Both of these assumptions contribute to the reduction of observations. The final data requirement allows the comparison of firms in the pre-period to the same firms in the post-period. Missing values may impair the representativeness of the dataset, and some of the variables missed values. Therefore, other missing values were deleted from the dataset. The final sample for the abnormal accruals analysis contains 3 193 firm-year observations. The sample for the analysis of the likelihood of a company reporting a small earnings increase includes 2 912 firm-year observations. The sample for the audit costs analysis includes 2 919 observations. Because the sample for audit fees and audit delay are the same, the calculated differences of the means of the control variables in the univariate analysis will be the same. *ROA* was removed from the abnormal accruals analysis due to many missing values. When using *KAM* as the main variable of interest, the sample is further reduced since the analysis only includes years after the introduction of ISA 701, hence from 2016. The sample for the analysis of *KAM* associated with abnormal accruals is 524 firm-year observations, and the sample for the analysis of the likelihood of a company reporting a small earnings increase is 543. Last, the sample for the audit costs analysis contains 509 firm-year observations. Data related to the first year ( $t$ ) of adopting ISA 701 and data from the pre-adoption period ( $t-1$ ) are collected from Compustat, Eikon/Datastream, and Audit Analytics. A hand-collection of data from the annual reports collects information about corporate governance and the number and type of key audit matters. The data are managed and analyzed in Python.

**Table 1: Sample construction**

<b>Panel A: Abnormal accruals sample</b>	Firm-year observations
Listed firms in the pre- and post-periods from Compustat:	5 389
Missing necessary data to calculate <i>ABS_ACC</i>	(1 909)
Missing data necessary to compute control variables	(287)
<b>Final sample for the abnormal accruals analysis</b>	<b>3 193</b>
<b>Panel B: Small earnings increase sample</b>	Firm-year observations
Listed firms in the pre- and post-periods from Compustat:	5 265
Missing necessary data to calculate <i>INCREASE</i>	(115)
Missing data necessary to compute control variables	(2 238)
<b>Final sample for the increase analysis</b>	<b>2 912</b>
<b>Panel C: Audit fee and sample</b>	Firm-year observations
Listed firms in the pre- and post-periods from Compustat:	5 265
Missing necessary data to calculate <i>LN_FEE</i>	(1 853)
Missing data necessary to compute control variables	(493)
<b>Final sample for audit fee analysis</b>	<b>2 919</b>
<b>Panel D: Audit delay sample</b>	Firm-year observations
Listed firms in the pre- and post-periods from Compustat:	5 265
Missing necessary data to calculate <i>DELAY</i>	(206)
Missing data necessary to compute control variables	(2 140)
<b>Final sample for audit fee analysis</b>	<b>2 919</b>

<b>Panel E:</b> Corporate governance sample	Firm-year observations
Listed firms in the pre- and post-periods:	1 730
Missing data necessary to compute <i>AUD_COM</i>	(757)
Missing data necessary to compute control variables for abnormal accruals	(133)
<b>Final sample for corporate governance analysis for abnormal accruals</b>	<b>840</b>
Missing data necessary to compute control variables for increase	(27)
<b>Final sample for corporate governance analysis for increase</b>	<b>946</b>
Missing data necessary to compute control variables for audit fees	(99)
<b>Final sample for corporate governance analysis for audit fees</b>	<b>874</b>
Missing data necessary to compute control variables for audit delay	(27)
<b>Final sample for corporate governance analysis for audit delay</b>	<b>946</b>
<hr/>	
<b>Panel F:</b> Key audit matters sample	Firm-year observations
Listed firms in the post-periods:	2 718
Missing necessary data to compute <i>KAM</i>	(2 160)
Missing data necessary to compute control variables for abnormal accruals	(34)
<b>Final sample for abnormal accruals</b>	<b>524</b>
Missing data necessary to compute control variables for increase	(15)
<b>Final sample for increase</b>	<b>543</b>
Missing data necessary to compute control variables for audit costs	(49)
<b>Final sample for audit costs analysis</b>	<b>509</b>

## 4.2 Models

### 4.2.1 Audit quality

Two financial reporting proxies are employed to capture audit quality, and these are (i) absolute abnormal accruals (*ABS\_ACC*) and (ii) the probability of a company reporting a small earnings increase (*INCREASE*). Audit quality is higher if clients have lower abnormal accruals and are less likely to report a small earnings increase. Both of the proxies are measures of earnings management, which is defined as "when managers use judgment in financial reporting and in structuring transactions to alter financial report to mislead stakeholders about the underlying economic performance of the company [...]" (Kjærland et al., 2021; Healy & Wahlen, 1999). Earnings management is the choice of the management to affect earnings intentionally, which can undermine the credibility of the financial statements

(Man & Wong, 2013). A company's earnings are often seen as the most important item in the financial statements. Therefore, analysts use earnings management when analyzing a company's performance, focusing on management's use of discretionary accruals.

Furthermore, earnings management increases if both abnormal accruals and the likelihood of a company reporting small earnings increase. In other words, audit quality will increase when earnings management decreases. Therefore, improved audit quality will result from lower abnormal accruals and a lower probability of a company reporting a small earnings increase.

Audit quality is challenging to measure. No single proxy will fully capture audit quality, and the abnormal accruals model have some weaknesses. Abnormal accruals can be calculated in many ways, meaning there is little consensus on how abnormal accruals should be measured (DeFond & Zhang, 2014). This study adopts the modified Jones model (1991). The most common reported key audit matters in Sweden include impairment of goodwill and other intangible assets and valuation of plant, property, and equipment. These key audit matters may indirectly affect earnings, and earnings are required to estimate abnormal accruals. Therefore, abnormal accrual is an appropriate proxy for audit quality in this study.

The modified Jones model estimates non-discretionary accruals during the event period (Dechow et al., 1995). This model assumes that the change in revenue minus the change in receivables is free from managerial discretion (Larcker et al., 2005). Discretionary accruals are estimated by subtracting the predicted non-discretionary accruals from total assets, scaled by lagged total assets. Total accruals are computed as net income after-tax – operating cash flow, deflated by lagged total assets in year  $t$ . Lagged values are used when it is assumed that the forecast of the next period depends on past values in the same series. Revenue, receivables, and net plant, property, and equipment are included to control for size, changes in sales and accounts receivables, and the level of property, plant, and equipment (Kjærland et al., 2021). The residuals of the regression represent the discretionary accruals and are therefore the component of interest in this regression model.

This regression model represents the proxy for abnormal accruals:

$$TACC_t = \alpha_1 \frac{1}{A_{t-1}} + \alpha_2 \frac{(\Delta REV_t - \Delta REC_t)}{A_{t-1}} + \alpha_3 \frac{PPE_t}{A_{t-1}} + \varepsilon_t$$

Where:

$TACC_t$  = Total accruals in year  $t$  divided by the total assets in year  $t-1$

$\Delta REV_t$  = Revenues in year  $t$  less the revenues in year  $t-1$

$\Delta REC_t$  = Receivables in year  $t$  less the receivables in year  $t-1$

$PPE_t$  = Level of property, plant, and equipment in year  $t$

$A_{t-1}$  = Total assets in year  $t-1$

$\alpha_1, \alpha_2$  and  $\alpha_3$  = Parameters to be estimated, alphas

$\varepsilon_t$  = Residuals or discretionary accruals in year  $t$

The following model examines the relationship between the new ISA 701 and abnormal accruals:

$$ABS\_ACC = \beta_0 + \beta_1 POST + \beta_2 SIZE + \beta_3 LOSS + \beta_4 MB + \beta_5 LEVERAGE + \beta_6 CFO + \beta_7 BIG4 + Industry\ Fixed\ Dummies + \varepsilon_t$$

The main variable of interest is *POST*, a binary variable that equals one if the fiscal year is after the implementation of ISA 701 and zero otherwise. It is predicted that  $\beta_1$  will be negative and significant since it is expected that audit quality will improve after the new reporting requirement. Similar to other studies, the model controls for different firm-level characteristics that may impact abnormal accruals (Reid et al., 2019; Li et al., 2019). These control variables are total assets (*SIZE*), profitability (*ROA* and *LOSS*), market-to-book ratio (*MB*), total liabilities (*LEVERAGE*), cash flow from operations (*CFO*), the use of a Big 4 auditor (*BIG4*) and industry fixed dummies, to account for differences across industries.

The following model tests the association between audit quality and reporting a small earnings increase:

$$INCREASE = \beta_0 + \beta_1 POST + \beta_2 SIZE + \beta_3 ROA + \beta_4 LOSS + \beta_5 MB + \beta_6 LEVERAGE + \beta_7 CFO + \beta_8 BIG4 + Industry\ Fixed\ Dummies + \varepsilon_t$$

*INCREASE* is a binary variable that is coded one if the difference between a firm's earnings before interest and taxes (EBIT) in years  $t$  and  $t-1$ , scaled by the market value at the end of year  $t-1$ , falls in the interval of  $[0.00, 0.02]$  and 0 otherwise (Carcello & Li, 2013). *POST* is the main variable of interest. The other control variables are the same as in the first equation. The study predicts a negative relationship between *INCREASE* and *POST*.

#### 4.2.2 Audit costs

There are two proxies for studying the audit costs related to the implementation of ISA 701, which are (i) audit fees and (ii) audit delay. The following model represents audit fees:

$$\begin{aligned} LN\_FEE = & \beta_0 + \beta_1 POST + \beta_2 SIZE + \beta_3 ROA + \beta_4 LOSS + \beta_5 MB + \beta_6 LEVERAGE \\ & + \beta_7 CFO + \beta_8 BIG4 + \beta_9 INV + \beta_{10} REC + \beta_{11} BUSY \\ & + \text{Industry Fixed Dummies} + \varepsilon_t \end{aligned}$$

The dependent variable is *LN\_FEE*, which is the natural logarithm of audit fees. Since audit fees may differ from industry to industry and from which auditor a company use, the model uses the logarithm of audit fees to take these variations into account. Since it's predicted that the audit costs will increase, it is expected that  $\beta_1$  will be positive. In addition to the same control variables as the models (1) and (2), this model controls for inventory (INV), receivables (REC) and auditor busy season (BUSY).

The audit costs may increase due to a longer delay between a firm's fiscal year-end and the issuance of the audit report. This model captures the association between the audit delay and the costs:

$$\begin{aligned} DELAY = & \beta_0 + \beta_1 POST + \beta_2 SIZE + \beta_3 ROA + \beta_4 LOSS + \beta_5 MB + \beta_6 LEVERAGE \\ & + \beta_7 CFO + \beta_8 BIG4 + \beta_9 INV + \beta_{10} REC + \beta_{11} BUSY + \beta_{12} LN\_FEE \\ & + \text{Industry Fixed Dummies} + \varepsilon_t \end{aligned}$$

The dependent variable, *DELAY*, equals the number of calendar days between a firm's fiscal year-end and the publication of the audit report (Reid et al., 2019). The model controls for the same variables as model (3) and controls for audit fees (*LN\_FEE*). A complete list of all the variables is presented in Appendix 1.



#### 4.2.3 Corporate governance

Furthermore, this study will examine the mediating effect of corporate governance on audit quality and audit costs. The following regression model will capture this effect:

$$DEPVAR = \beta_0 + \beta_1 POST + \beta_2 AUD\_COM + \beta_3 POST * AUD\_COM + Controls + \varepsilon_t$$

This regression model examines the interaction between the audit committee and the disclosure variable *POST*. The interaction term will be the main independent variable and is the interaction between *POST* and whether a company has an audit committee. Since it is not mandatory for Swedish companies to have an audit committee, this interaction be an indicator of a company's corporate governance performance. If a company has an audit committee, it may suggest that the company have a good corporate governance performance. If a company do not have an audit committee, it may indicate a weakness in the corporate governance function. The audit committee equals one if the board has separate audit committee and zero otherwise. The control variables are the same as models (1)-(4).

## 5. Results

### 5.1 Summary of findings

#### 5.1.1 Univariate results

Table 1 summarizes the sample selection for the audit quality and the audit costs analyses.

Table 2, panel A provides descriptive statistics of the dependent and independent variables for both before and after 2016. Panels B-F compares the means of the variables used in each audit quality and audit cost analysis for the period before 2016 (POST = 0) and the period after 2016 (POST = 1). All continuous variables are winsorized at the 1st percent and 99th percent levels.

Panel B of the univariate analysis reports the outcomes for abnormal accruals. The absolute value of mean abnormal accruals is insignificantly higher in the post-period, compared to the pre-period. Since the study compare the same firms in the pre- and post-period, their litigious industry status is the same in the two periods. The third Panel of Table 2 reports the univariate results for the likelihood of a firm reporting a small earnings increase in the pre-period compared to the post-period. The propensity to report a small earnings increase is significantly higher in the post-disclosure requirement period compared to the pre-period. Panel D of Table 2 reports the univariate results for the audit fee analysis. There is a significant increase in audit fees in the post-period compared to the pre-period. Panel E of Table 2 reports the univariate results of the audit delay analysis which reports a significant increase in the number of calendar days between the fiscal year-end and the date of the publication of the audit report. Thus, at the univariate level, the study find significant change in audit costs, proxied by an increase in both audit costs and the audit delay from the pre-period compared to the post-period. Moreover, Panel F reports the univariate results of the mediating effect of corporate governance. The analysis provides significant evidence that the occurrence of audit committees has increased in the post-period, compared to the pre-period.

**Table 2: Descriptive statistics**

Univariate analysis

<b>Panel A: Descriptive statistics for audit quality and audit costs</b>						
	<i>N</i>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>25%</b>	<b>75%</b>
ABS_ACC	3 193	0,162	1,671	0,056	0,021	0,130
LN_FEE	2 919	13,696	1,607	13,516	12,565	14,738
DELAY	2 919	91,574	33,093	92,000	78,000	110,000
INCREASE	2 912	0,262	0,440	1,000	0,000	1,000
POST	2 912	0,566	0,496	1,000	0,000	1,000
REC	2 912	0,195	0,162	0,168	0,066	0,275
INV	2 912	0,103	0,129	0,047	0,000	0,164
CFO	2 912	-0,045	0,384	0,049	-0,096	0,115
BIG4	2 912	0,616	0,489	1,000	0,000	1,000
SIZE	2 912	6,043	2,345	5,818	4,306	7,604
LOSS	2 912	0,418	0,493	0,000	0,000	1,000
LEV	2 912	0,477	0,322	0,484	0,290	0,621
BUSY	2 912	0,924	0,265	1,000	1,000	1,000
ROA	2 912	-0,043	0,421	0,072	-0,101	0,135
MB	2 912	4,431	32,847	2,000	0,000	4,000
AUD_COM	946	0,770	0,487	1,000	1,000	1,000

**Panel B: Abnormal accruals analysis**

	<b>POST = 0</b>	<b>POST = 1</b>	<b>+/-</b>	<b>Difference</b>	<b>t-stat</b>
ABS_ACC	0,133	0,177	+	0,044	0,702
SIZE	5,919	5,743		(0,176)	-1,868*
LOSS	0,412	0,501	+	0,089	4,680***
MB	4,560	3,579		(0,981)	-1,272
LEV	0,470	0,465		(0,005)	-0,334
CFO	-0,024	-0,119		(0,095)	-5,850***
BIG4	0,627	0,551		(0,076)	-4,074***

**Panel C: The likelihood of reporting a small earnings increase analysis**

	<b>POST = 0</b>	<b>POST = 1</b>	<b>+/-</b>	<b>Difference</b>	<b>t-stat</b>
INCREASE	0,215	0,298	+	0,083	5,073***
SIZE	5,889	6,163	+	0,274	3,142**
ROA	-0,022	-0,058		(0,036)	-2,310*
LOSS	0,417	0,418	+	0,001	0,011
MB	4,753	4,209		(0,544)	-0,443
LEV	0,466	0,485	+	0,019	1,560
CFO	-0,018	-0,066		(0,048)	-3,318***
BIG4	0,634	0,603		(0,031)	-1,746*

**Panel D: Audit fees analysis**

	<b>POST = 0</b>	<b>POST = 1</b>	<b>+/-</b>	<b>Difference</b>	<b>t-stat</b>
LN_FEE	13,615	13,758	+	0,143	2,340*
SIZE	5,887	6,163	+	0,276	3,159**
ROA	-0,023	-0,058		(0,035)	-2,255**
LOSS	0,419	0,418		(0,001)	-0,077
MB	4,727	4,205		0,115	-0,426
LEV	0,466	0,485	+	(0,522)	1,574
CFO	-0,019	-0,066		(0,047)	-3,301***
BIG4	0,634	0,602		(0,032)	-1,734*
INV	0,108	0,099		(0,009)	-1,855*
REC	0,207	0,187		(0,02)	-3,477***
BUSY	0,920	0,927	+	0,007	0,716

**Panel E: Audit delay analysis**

	<b>POST = 0</b>	<b>POST = 1</b>	<b>+/-</b>	<b>Difference</b>	<b>t-stat</b>
DELAY	89,542	93,132	+	3,59	2,909**
SIZE	5,887	6,163	+	0,276	3,159**
ROA	-0,023	-0,058		(0,035)	-2,255*
LOSS	0,419	0,418		(0,001)	-0,077
MB	4,723	4,205		(0,518)	-0,426
LEV	0,466	0,485	+	0,019	1,574
CFO	-0,019	-0,067		(0,048)	-3,301***
BIG4	0,634	0,602		(0,032)	-1,734*
INV	0,108	0,097		(0,011)	-1,855*
REC	0,207	0,186		(0,021)	-3,477***
BUSY	0,920	0,927	+	0,007	0,716
LN_FEE	13,615	13,758	+	0,143	2,390*

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**Panel F: Corporate governance analysis**

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	<b>POST = 0</b>	<b>POST = 1</b>	<b>+/-</b>	<b>Difference</b>	<b>t-stat</b>
AUD_COM	0,699	0,828	+	0,129	3,955***

In summary, the univariate analysis fails to report significant evidence that abnormal accruals changed from the pre-period to the post-period. Regarding the probability of a company reporting a small earnings increase, the results show a significant increase with the p-value < 0,01. The univariate analysis provides evidence that the mean of both audit fees and the audit delay has increased upon the implementation of the new reporting requirements for auditors, with p-values < 0,1 and 0,05, respectively. Last, the univariate analysis also provides results that the presence of audit committees significantly increased after the implementation of ISA 701.

### 5.1.2 Regression results

Table 3 and 4 present the regression results for the financial reporting quality and audit costs analyses. Table 5 reports the results of the mediating effect of corporate governance. Robust t-statistics adjusted for firm clustering effects are presented in parentheses below the coefficients. \*, \*\* and \*\*\* indicate significance at the 0,10, 0,05 and 0,01 levels, respectively. All models are tested heteroscedasticity through a White's Test and tested for multicollinearity. In addition, correlation matrixes were made for all the regressions models. The results of the tests and the matrixes are attached in the Appendix 2.1-2.3.

Overall, the regression models are significant. Panel A of Table 3 reports the results of first hypothesis. The regression model has low explanatory power, with an adjusted  $R^2$  of 0,025. The coefficient on *POST* is positive, but insignificant. Thus, the analysis cannot provide evidence that abnormal accruals changed in the post-period compared to the pre-period for Swedish listed companies. This result is consistent with the univariate analysis. Regarding the control variables, larger firms are significantly associated with lower abnormal accruals with the p-value < 0,01. In addition, companies with more debt or companies that are audited by a BIG 4 auditor are significantly associated with higher abnormal accruals, with the p-value equal or less than 0,01 and 0,1, respectively. Due to autocorrelation, the regression analysis does not test for prior years accruals.

**Table 3: Regression analysis of audit quality****Panel A: Abnormal accruals analysis**

Variables	<i>ABNORMAL ACCRUALS</i>
POST	0,045 (0,711)
SIZE	-0,069*** (-4,081)
LOSS	-0,019 (-0,242)
MB	0,000 (0,139)
LEV	0,526*** (5,841)
CFO	-0,110 (-1,299)
BIG4	0,124* (1,874)
Industry fixed effects included	Yes
Constant included	Yes
Observations	3 193
Adjusted R <sup>2</sup>	0,025

Panel B of Table 3 present the regression results for the likelihood of firm reporting a small earnings increase in the post-period compared to the pre-period. The adjusted R<sup>2</sup> are 0,107. *POST* is significantly positive with  $p < 0,01$ , meaning that the propensity to report a small earnings increase will be higher in the post-period, compared to the pre-period. These results are on the contrary to the second hypothesis. Thus, it appears that the financial reporting quality decreased after the implementation of ISA 701. *SIZE*, *LOSS* and *LEV* are significant at 1% and 5%, respectively. Large companies tend to have a higher likelihood of reporting a small earnings increase. Moreover, loss firms and companies with more debt, are less likely to reporting a small earnings increase.

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**Panel B: The likelihood of a company reporting a small earnings increase**

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<b>Variables</b>	<b><i>INCREASE</i></b>
POST	0,076*** (4,875)
SIZE	0,029*** (6,478)
ROA	0,034 (6,901)
LOSS	-0,163*** (-7,901)
MB	0,000 (0,385)
LEV	-0,057** (-2,158)
CFO	-0,000 (-0,008)
BIG4	0,004 (0,202)
Industry fixed effects included	Yes
Constant included	Yes
Observations	2 912
Adjusted R <sup>2</sup>	0,107

Panel A of Table 4 reports the result of audit fees. The model has high explanatory power, with an adjusted R<sup>2</sup> of 0,857. The results shows that the coefficient on *POST* is negative and significant with a p-value less than 0,1. It may occur extra costs for auditors after the new reporting requirement, but due to the decrease in the audit fee, these costs were not passed along to the client as audit fees. Therefore, the clients benefit from the new reporting requirement due to the decrease in the audit fee. Regarding the control variables, all the variables are significant, except *CFO* and *BIG4*.

**Table 4: Regression analysis of audit costs****Panel A: Audit fees analysis**

Variables	<i>AUDIT FEE</i>
POST	-0,046* (-2,015)
SIZE	0,672*** (98,391)
ROA	-0,250*** (-4,541)
LOSS	0,157*** (5,034)
MB	0,001** (2,361)
LEV	0,360*** (8,570)
CFO	-0,090 (-1,584)
BIG4	0,014 (0,533)
INV	0,423*** (3,770)
REC	0,755*** (8,909)
BUSY	0,200*** (4,513)
Industry fixed effects included	Yes
Constant included	Yes
Observations	2 919
Adjusted R <sup>2</sup>	0,857

Panel B of Table 4 reports the result of the audit delay model. On the contrary to the results from the audit fee analysis, the audit delay analysis provides significant evidence ( $p < 0,01$ ) that audit costs increased after the implementation of ISA 701. Consistent with the univariate analysis, the audit delay has increased in the post-period, meaning that the number of days between the fiscal-year end and the publication of the audit report has increased. This result suggests that the expanded audit report require more work from the auditor. *SIZE*, *LEV* and *REC* are significant at 1%, while *LOSS* is significant at 5%. Both *SIZE* and *LN\_FEE* may contain multicollinearity (Appendix 2.1, Panel D). Running the regression analysis without these control variables did not change the results of the regression. Therefore, the variables were retained.



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**Panel B: Audit delay analysis**

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<b>Variables</b>	<b>AUDIT DELAY</b>
POST	4,191*** (3,511)
SIZE	-4,223*** (-5,708)
ROA	3,630 (1,265)
LOSS	4,608** (2,829)
MB	0,016 (0,861)
LEV	17,527*** (7,951)
CFO	3,110 (1,059)
BIG4	1,340 (1,059)
INV	-9,340 (-1,437)
REC	-18,119*** (-4,056)
BUSY	3,806 (1,644)
LN_FEE	1,007 (1,043)

Industry fixed effects included	Yes
Constant included	Yes
Observations	2 919
Adjusted R <sup>2</sup>	0,091

To conclude, the study did not find evidence that the new reporting requirements had a significant effect on abnormal accruals. Taken together with the increase in the propensity to reporting a small earnings increase, the results suggests that the standard setter's intention to provide higher audit quality are not shown in the Swedish setting. Moreover, the study observed a significant decrease in audit fees. This finding supports the statement from Reid et al. (2019) that the additional information to disclose in the audit report is information the auditors collected under already existing requirements. The information is not new and do not lead to an increased workload or costs for the auditors. Therefore, the clients benefits from the new reporting requirements by paying lower audit fees, but this benefit may be at the expense of the audit quality. As for the significant increase in the audit delay, this may indicate that

the expanded audit report leads to more discussions with the management and the audit committee, which makes the audit to take longer time to finish.

The first Panel of Table 5 reports the results of analysis of the mediating effect of corporate governance on abnormal accruals. The coefficient of *AUD\_COM* is insignificant, and this study cannot argue that the presence of an audit committee affects abnormal accruals. Therefore, the hypothesis is not supported by the regression analysis. Regarding the control variables *SIZE*, *LOSS* and *LEV* are significant at 1%. Moreover, *CFO* is significant at 5%. The VIF-index suggested that it might be multicollinearity regarding *CFO*. However, the results did not change if *CFO* was removed. Therefore, the control variable was not deleted (See Appendix 2.1, Panel E).

**Table 5: Regression analysis of the mediating effect of corporate governance**

<b>Panel A: The mediating effect of corporate governance on abnormal accruals</b>	
<b>Variables</b>	<b><i>ABNORMAL ACCRUALS</i></b>
POST	-0,008 (-0,663)
AUD_COM	-0,012 (-1,326)
POST * AUD_COM	0,017 (1,250)
SIZE	-0,012*** (-6,335)
LOSS	0,038*** (3,951)
MB	0,002 (0,574)
LEV	0,078*** (4,463)
CFO	0,123** (2,996)
BIG4	0,004 (0,574)
BUSY	-0,012 (-1,005)
Industry fixed effects included	Yes
Constant included	Yes
Observations	840
Adjusted R <sup>2</sup>	0,130

Panel B of Table 5 presents the results of the mediating effect of corporate governance on the likelihood of a company reporting a small earnings increase. The analysis do not find significant evidence that the relation between the new reporting requirements and audit committee affect the probability of a company reporting a small earnings increase. *SIZE*, *ROA*, *LOSS* and *MB* are significant at the level of 0,05, while *LEV* is significant at the level of 0,1. Taken together with the results of the analysis of abnormal accruals, corporate governance does not affect audit quality in combination with the implementation of ISA 701. The analysis detected multicollinearity regarding *ROA* and *CFO*. Since removing these control variables did not change the results, the variables was retained (See Appendix 2.1, Panel F).

<b>Panel B: The mediating effect of corporate governance on increase</b>	
<b>Variables</b>	<b><i>INCREASE</i></b>
POST	0,082 (1,383)
AUD_COM	-0,010 (-0,256)
POST * AUD_COM	0,001 (0,019)
SIZE	0,025** (2,564)
ROA	0,520** (2,364)
LOSS	-0,110** (-2,292)
MB	0,021** (4,023)
LEV	-0,162* (-1,758)
CFO	-0,240 (-1,133)
BIG4	0,032 (0,837)
Industry fixed effects included	Yes
Constant included	Yes
Observations	946
Adjusted R <sup>2</sup>	0,086

Panel C of Table 5 provides the result for the mediating effect of corporate governance on audit fees. However, the results of this analysis shows that the coefficient on both *AUD\_COM* and the interaction term are insignificant, which does not provide evidence that the relation

between the new auditor reporting requirements and audit fees are stronger for companies with an audit committee compared to those without. These results suggest that the clients do not absorb the costs of the new reporting requirements in the presence of an audit committee. *SIZE*, *MB* and *LEV* are significant at with the p-value less than 0,01, while *BUSY* and *BIG4* are significant at 0,05 and 0,1, respectively. As for multicollinearity, it occurred in relation with *ROA*. However, the results stayed the same when removing the variable. Therefore, *ROA* was not deleted (See Appendix 2.1, Panel G).

<b>Panel C: The mediating effect of corporate governance on audit fee</b>	
<b>Variables</b>	<b>AUDIT FEE</b>
POST	0,076 (1,008)
AUD_COM	-0,010 (-0,209)
POST * AUD_COM	-0,131 (-1,576)
SIZE	0,692*** (52,688)
ROA	-0,257 (-0,884)
LOSS	-0,025 (-0,400)
MB	-0,025*** (-3,712)
LEV	0,548*** (4,628)
CFO	-0,118 (-0,419)
BIG4	-0,100* (-2,084)
BUSY	0,211** (2,696)
Industry fixed effects included	Yes
Constant included	Yes
Observations	874
Adjusted R <sup>2</sup>	0,861

Panel C of Table 5 provide the result for the effect of corporate governance on the audit delay. The coefficient to the interaction term is positive, but insignificant. This result suggest that the relation between the new auditor reporting requirements and audit delay are not affected by

the fact that a company have an audit committee. As for the control variables, *SIZE* and *MB* are significant at the level of 0,01. *LOSS*, *BIG4* and *BUSY* are significant at the level of 0,05. Regarding multicollinearity, the VIF-index shows that *ROA* contains multicollinearity. Removing the variable did not change the results, and the variable was retained (See Appendix 2.1, Panel H).

<b>Panel C: The mediating effect of corporate governance on audit delay</b>	
<b>Variables</b>	<b>AUDIT DELAY</b>
POST	1,535 (0,488)
AUD_COM	-1,950 (-0,901)
POST * AUD_COM	4,630 (1,228)
SIZE	-4,140*** (-7,259)
ROA	-4,296 (-0,339)
LOSS	5,622** (2,024)
MB	1,717*** (5,733)
LEV	2,746 (0,516)
CFO	9,029 (0,738)
BIG4	-5,796** (-2,643)
BUSY	-9,940** (-2,816)
Industry fixed effects included	Yes
Constant included	Yes
Observations	946
Adjusted R <sup>2</sup>	0,223

To summarize, this study examined if the relation between the implementation of ISA 701 and audit quality and costs are stronger in the presence of audit committees. Still, the regression analysis did not provide significant results that the new reporting requirements led to higher audit quality and costs for companies with an audit committee, compared to those without.

## 6 Additional analysis

### 6.1 Analysis of risks of material misstatements

To further examine the impact of ISA 701, this study conduct an additional analysis using the content of the audit report by hand-collecting the number of key audit matters (*KAM*) disclosed in Swedish listed companies from 2016 to 2019. This additional analysis replicates the previous regression models, but with *KAM* as the main variable of interest. The number of key audit matters disclosed are directly associated with the number of risks of material misstatements, which will affect the audit quality and the audit costs. It is expected that if the risks impact financial reporting quality and audit costs, the quality and costs will increase as the number of risks increases. *KAM* equals one if the firm's number of key audit matters is equal to or above the estimated median for each year and zero otherwise. The control variables are the same as in models (1)-(4). These regression models capture the effects of disclosures of key audit matters:

$$ABS\_ACC = \beta_0 + \beta_1 KAM + Controls + Industry\ Fixed\ Dummies + \varepsilon_t$$

$$INCREASE = \beta_0 + \beta_1 KAM + Controls + Industry\ Fixed\ Dummies + \varepsilon_t$$

$$LN\_FEE = \beta_0 + \beta_1 KAM + Controls + Industry\ Fixed\ Dummies + \varepsilon_t$$

$$DELAY = \beta_0 + \beta_1 KAM + Controls + Industry\ Fixed\ Dummies + \varepsilon_t$$

### 6.2 Summary of findings

#### 6.2.1 Univariate results

Panel A of Table 6 provides descriptive statistics for the *KAM* variable, the dependent variables and the control variables. Panel B shows the univariate results if the absolute value of abnormal accruals, the likelihood of reporting a small earnings increase, audit fees and audit delay are influence by the number of key audit matters disclosed in the audit report. However, the number of key audit matters disclosed in the audit report do not affect audit quality. As for the audit costs, the univariate analysis shows a significant increase in the mean of audit fees and a significant decrease in the mean of audit delay in the post-period, compared to the pre-period. Thus, the univariate analysis fail to provide evidence that the

number of risks are associated with audit quality, but the number of key audit matters are strongly associated with audit costs at the univariate level.

**Table 6: Descriptive statistics**

Univariate analysis

<b>Panel A: Descriptive statistics</b>						
	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>25%</b>	<b>75%</b>
ABS_ACC	524	0,052	0,090	0,029	0,013	0,062
INCREASE	543	0,354	0,479	0,000	0,000	1,000
LN_FEE	509	15,037	1,402	14,914	13,973	15,817
DELAY	509	85,973	19,222	86,000	75,000	97,000
KAM	509	0,334	0,472	0,000	0,000	1,000
SIZE	509	8,069	1,861	7,921	6,628	9,203
ROA	509	0,065	0,204	0,099	0,062	0,449
LOSS	509	0,287	0,390	0,000	0,000	0,000
MB	509	2,766	3,893	2,000	1,000	3,000
CFO	509	0,045	0,193	0,077	0,337	0,120
BIG4	509	0,794	0,405	1,000	1,000	1,000
INV	509	0,104	0,118	0,075	0,003	0,160
REC	509	0,193	0,144	0,174	0,088	0,260
BUSY	509	0,916	0,278	1,000	1,000	1,000
PRIOR_ACCRUALS	524	-0,035	0,103	-0,031	-0,060	-0,002

**Panel B: KAM analysis**

	<b>KAM = 0</b>	<b>KAM = 1</b>	<b>+/-</b>	<b>Difference</b>	<b>t-stat</b>
ABS_ACC	0,053	0,050		(0,003)	-0,368
INCREASE	0,374	0,316		(0,058)	-1,358
LN_FEE	14,807	15,496	+	0,689	5,366***
DELAY	83,743	76,197		(7,546)	-3,108**
SIZE	7,835	8,755	+	0,920	5,535***
ROA	0,057	0,082	+	0,025	1,419
LOSS	0,174	0,187	+	0,013	0,356
MB	3,191	1,570		(1,621)	-4,825***
LEV	0,494	0,544	+	0,050	2,966**
CFO	0,034	0,064	+	0,030	1,722*
BIG4	0,797	0,808	+	0,011	0,311
PRIOR_ACCRUALS	-0,028	-0,047		(0,019)	-1,936*

### 6.2.2 Regression results

Table 7 show the regressions analysis with *KAM* as the main variable of interest. In line with the other regression models, all models significant and are tested for heteroscedasticity through a White's Test and are tested for multicollinearity. Regarding multicollinearity, both

*ROA* and *CFO* had a VIF-score suggesting that there is some multicollinearity present. Still, the results was the same when the variables was removed. Therefore, the variables was not deleted from the models (Appendix 2.1, Panels I-L).

Panel A of Table 7 show the results of the abnormal accrual analysis. In line with the univariate analysis, the coefficient to *KAM* is negative, but insignificant. Thus, the regression model cannot provide evidence that abnormal accruals decreases as the number of key audit matters increases. The adjusted R<sup>2</sup> of the model are 0,393. *SIZE*, *MB*, *CFO* and *PRIOR\_ACC* are significant at 1% while *ROA* and *LEV* are significant at 5%.

**Table 7: Regression analysis of key audit matters**

<b>Panel A: Analysis of KAM on abnormal accruals</b>	
Variable	<i>ABNORMAL ACCRUALS</i>
KAM	-0,002 (-0,331)
SIZE	-0,010*** (-4,790)
ROA	-0,60** (-3,191)
LOSS	0,018 (1,612)
MB	0,004*** (3,776)
LEV	0,065** (3,010)
CFO	0,188*** (3,770)
BIG4	-0,012 (-1,419)
PRIOR_ACC	-0,459*** (-14,260)
Industry fixed effects included	Yes
Constant included	Yes
Observations	524
Adjusted R <sup>2</sup>	0,393

The results of the effect of disclosing key audit mattes on *INCREASE* are presented in Panel B. The coefficient of *KAM* is negative and insignificant. Taken together with the results from the abnormal accruals analysis, the study cannot provide evidence that audit quality changes



when the number of risks increases. Regarding the control variables, *LOSS* and *MB* are significant with a p-value less than 0,05, and *SIZE* are significant with a p-value less than 0,1.

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**Panel B:** Analysis of KAM on the likelihood of a company reporting a small earnings increase

Variable	<i>INCREASE</i>
KAM	-0,055 (-1,260)
SIZE	0,026* (1,862)
ROA	0,300 (0,932)
LOSS	-0,160** (-2,231)
MB	0,016** (2,565)
LEV	-0,148 (-1,081)
CFO	-0,004 (-0,011)
BIG4	0,035 (0,672)
Industry fixed effects included	Yes
Constant included	Yes
Observations	543
Adjusted R <sup>2</sup>	0,080

Panel C of Table 7 provides the regression analysis for audit fees. The coefficient of *KAM* is positive and significant, meaning that the audit fee will increase if a company disclose more key audit matters in the audit report than the calculated mean. The explanatory power is high, with an adjusted R<sup>2</sup> of 0,844. Moreover, *SIZE* and *REC* are significant at the 0,01 level, while *ROA*, *MB* and *BIG4* are significant with a p-value less than 0,05 and 0,1, respectively.

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**Panel C: Analysis of KAM on audit fees**

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Variable	<i>AUDIT FEE</i>
KAM	0,5142** (2,576)
SIZE	0,713*** (38,176)
ROA	-0,856** (-1,973)
LOSS	0,141 (1,573)
MB	-0,014* (-1,859)
LEV	0,415 (0,790)
CFO	0,415 (0,961)
BIG4	-0,125* (-1,947)
INV	0,440 (1,521)
REC	1,147*** (5,368)
BUSY	0,009 (0,090)

Industry fixed effects included	Yes
Constant included	Yes
Observations	509
Adjusted R <sup>2</sup>	0,844

The last Panel of Table 7 reports the analysis for the audit delay. *KAM* is positive and significant with a p-value<0,05. The analysis shows that the audit delay will be longer if a company disclose more than the calculated mean of key audit matters. Thus, this study provides significant evidence that the number of key audit matters are positively associated with the auditors' workload. The adjusted R<sup>2</sup> are 0,247. *SIZE* is significant with the p-value<0,01. Moreover, *LEV*, *BIG4* and *INV* are significant with a p-value<0,05, while *LOSS* and *MB* are significant with the p-value<0,1.

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**Panel D: Analysis of KAM on audit delay**

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Variable	<i>AUDIT DELAY</i>
KAM	3,313** (1,991)
SIZE	-3,909*** (-3,726)
ROA	-7,597 (-0,596)
LOSS	4,907* (1,830)
MB	0,396* (1,736)
LEV	15,414** (2,996)
CFO	13,101 (1,028)
BIG4	-5,048** (-2,604)
INV	-22,808** (-2,617)
BUSY	-2,424 (-0,793)
LN_FEE	-0,328 (-0,248)

Industry fixed effects included	Yes
Constant included	Yes
Observations	509
Adjusted R <sup>2</sup>	0,247

In summary, the lack of significant effects for the abnormal accruals and propensity to report a small earnings increase analysis suggests that, on the contrary to standard setters' expectations, key audit matters are not associated with an increase in audit quality. These results are consistent with the results of Gutierrez et al. (2018), who did not find significant consequences on the audit quality of the expanded audit report in the United Kingdom. On the other hand, the analysis provides significant evidence that both audit fees and the audit delay increases as the number of key audit matters increases.

## 7. Discussion and conclusion

The audit report is the only instrument for auditors to communicate the audit process to stakeholders. Financial statement users have requested more transparency and information in the audit report beyond the standardized format. Therefore, standard setters worldwide released a revised auditor reporting standard to enhance the information value for investors. One significant change of the previous pass/fail audit report model is the implementation of key audit matters. Key audit matters provide information about the most significant matters auditors encounter during the audit process. This study examined the costs and benefits associated with implementing key audit matters as described by ISA 701. Using a sample of listed companies in Sweden, the main results did not find an increase in audit quality after the introduction of ISA 701. Thus, these findings do not support the argument that the new auditing standard has achieved the intended benefit of improved audit quality. These results are in line with the results of Bédard et al. (2019) and Gutierrez et al. (2018). Furthermore, the costs of implementing of the new auditing standard are associated with audit fees and audit delay. The decrease related to audit fees combined with the increase in the audit delay suggests that the auditors may have increased their workload after the implementation of ISA 701, but did not pass these costs to the clients in the form of audit fees. The result indicates that the additional disclosures require substantial audit efforts, by for example, the auditor must expand the scope of substantive audit procedures, resulting in an increased audit delay. Still, the higher costs of the expanded audit report are not charged to the clients, implying that auditors spread the amount of work over a longer period. Li et al. (2019) also observed a significant increase in audit costs, but this study measured audit costs only through audit fees. Still, the results of this study support the arguments of Li et al. (2019), that implementing the new audit standard may be costly.

Moreover, the additional analysis show that audit costs significantly increase when an auditor discloses more key audit matters than the calculated mean. These results are consistent with the findings of Gutierrez et al. (2018) who argued that long audit reports and many risks are associated with higher audit fees. To the extent that audit fees capture the auditor's effort, these results indicate a positive relationship between risk and effort. Moreover, the audit delay model also partially confirmed the higher auditor efforts. There are several reasons that may explain the increased audit costs. First, disclosure of key audit matters requires more time, including more discussions among the management, the auditor and the audit committee. This might explain the increase in the prolonged audit delay. Second, disclosure of key audit

matters in the expanded audit report may increase auditors' effort when comprehending the financial statements items. Moreover, the increase in audit fees may be due to the increased auditor effort and time. However, the study did not find the effect on audit quality with the proxies used. These results are contrary to the intention of the new auditing standard, which was to enhance the communicative and informative value of the audit report for financial statement users. This is aligned to the results of Gutierrez et al. (2018). Future studies may perceive the increased auditor effort's effect on audit quality if they use other measures or another study design. Previous research argues that audit committees demand a higher-quality audit and that the existence of audit committees is associated with higher audit fees (Goodwin-Stewart & Kent, 2006, Abbott et al., 2003). Contrary to previous studies, this study does not find any significant association between the existence of audit committees, and audit quality and costs. Due to this, the study cannot report that the relation between the new auditor reporting requirements, audit quality and costs is changed when a company has an audit committee compared to those without a committee. Taken together, this study documents that the new auditor reporting requirements are associated with a significant increase in audit costs without a significant improvement in financial reporting quality.

This study is subject to some limitations. First, this study does not include the investor's perspective, for example, by analyzing the earnings response coefficient. ERCs capture the investors' perceptions of audit quality, but this is outside the scope of this study. This paper focuses only on the views of the parties directly involved in reporting key audit matters. External stakeholders do not observe the entire audit process and their perspective is not as detailed as the auditors. Second, the number of observations for the corporate governance analysis are low due to incomplete datasets. The small sample for this analysis offers a plausible explanation for the insignificant results.

Notwithstanding these limitations, the study provides timely and relevant evidence on the costs and benefits of the new auditor reporting requirements. As the period of this study includes all the years from 2012 to 2019, the results are relevant and persist for future years. The study stands to extend the existing literature by examining the value of audit reports and the consequences of implementing a new auditing standard. The previous studies in the United Kingdom observed mixed results, which may be because other changes occurred in the United Kingdom around the time of the new auditor report. This could for example be the simultaneous introduction of the audit committee requirement. These changes did not happen

in Sweden. Therefore, this study contributes to the existing research by explicitly examining the effect of ISA 701 without other regulatory changes that can affect the results. This study also contributes to the corporate governance literature. Since Swedish companies are not obligated to have a separate audit committee, it is an appropriate setting to examine the effect of the presence of audit committees. The results augment similar studies that examine corporate governance mechanisms.

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## APPENDIX

### 1. Variable descriptions

#### 1.1 Main variables

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<b>Main dependent variables and test variables</b>	
ABNORMAL	Performance adjusted absolute abnormal accruals. Estimated using
ACCRUALS	the modified Jones (1991) model. Direct measurement of audit quality.
INCREASE	Binary variable. Equals one if the difference between a firm's EBIT in years $t$ and $t-1$ falls in the interval of $[0.00, 0.02]$ , and zero otherwise.
LN_FEE	Represents the natural logarithm of audit fees.
DELAY	Equals the number of calendar dates between a firm's fiscal year end and the date of its audit report.
POST	Binary variable. This is the variable of interest, which equals zero if the fiscal year is before 2016, and one if the fiscal year is 2016 or after.
KAM	Binary variable. The main variable of interest. Shows the relationship between the number of KAMs, audit quality and audit fees. Mean variable, which equals one if the firm has number of KAM equal or above the mean, zero otherwise.

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<b>Main control variables</b>	
AUD_COM	Binary variable. Equal one if the company has an audit committee, zero otherwise.
BIG4	Binary variable. The use of the Big 4 auditor. Equal to one if the company is audited by a Big 4 firm in year $t$ , zero otherwise.
BUSY	Binary variable. Auditor busy season. Equal to one if the company's fiscal year-end is during the month of December, zero otherwise.
CFO	Cash flow from operations, divided by total assets at the end of the year.
INV	Total inventory divided by total assets at the end of the year.
LEV	Total debt divided by total assets at the end of the year.

LOSS	Profitability. Binary variable which equals one if the company's net income is less than 0, zero otherwise.
MB	Market-to-book ratio. Calculated by market value divided by book value at the end of the year.
PRIOR_ACCRUALS	The prior year's accruals. Total current accruals for the prior year scaled by total assets at the end of the prior year.
REC	Total accounts receivable divided by total assets at the end of the year.
ROA	EBIT in year $t$ divided by total assets at the of the year.
SIZE	The natural logarithm of total assets at the end of the year.

### 1.2 Industry Dummy Variables

SIC\_1: A dummy variable given the value of 1 if the company is in agriculture, forestry, fishing and mining industry, and 0 otherwise. (SIC Code: 100-1499).

SIC\_2: A dummy variable given the value of 1 if the company is in construction industry, and 0 otherwise. (SIC Code: 1500-1799).

SIC\_3: A dummy variable given the value of 1 if the company is in manufacturing industry, and 0 otherwise. (SIC Code: 2000-3999)

SIC\_4: A dummy variable given the value of 1 if the company is in transportation, communications, electric, gas and sanitary services industry, and 0 otherwise. (SIC Code: 4000-4999)

SIC\_5: A dummy variable given the value of 1 if the company is in wholesale trade and retail trade, and 0 otherwise. (SIC Code: 5000-5999).

SIC\_6: A dummy variable given the value of 1 if the company is in finance, insurance and real estate industry, and 0 otherwise. (SIC Code: 6000-6799).

SIC\_7: A dummy variable given the value of 1 if the company is in services industry, and 0 otherwise. (SIC Code: 7000-8999).

SIC\_8: A dummy variable given the value of 1 if the company is I public administration industry, and 0 otherwise. (SIC Code: 9100-9729).

SIC\_9: A dummy variable given the value of 1 if the company is in an industry that is non classifiable, and 0 otherwise (SIC Code: 9900-9999).

## 2. Additional tests

### 2.1 VIF-indexes (multicollinearity)

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<b>Panel A: Abnormal accruals</b>	
<b>Variable</b>	<b>VIF</b>
POST	1,022
SIZE	2,040
LOSS	1,835
MB	1,013
LEV	1,372
CFO	4,234
BIG4	1,253

---

<b>Panel B: The likelihood of reporting a small earnings increase</b>	
<b>Variable</b>	<b>VIF</b>
POST	1,018
SIZE	1,892
ROA	4,174
LOSS	1,745
MB	1,017
LEV	1,209
CFO	3,742
BIG4	1,203

---

<b>Panel C: Audit fee</b>	
<b>Variable</b>	<b>VIF</b>
POST	1,025
SIZE	2,034
ROA	4,247
LOSS	1,876
MB	1,018
LEV	1,442
CFO	3,732
BIG4	1,210
INV	1,646
REC	1,488
BUSY	1,093

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**Panel D: Audit delay**

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<b>Variable</b>	<b>VIF</b>
POST	1,026
SIZE	8,825
ROA	4,277
LOSS	1,892
MB	1,020
LEV	1,478
CFO	3,735
BIG4	1,211
INV	1,654
REC	1,529
BUSY	1,100
LN_FEE	7,057

---

**Panel E: The mediating effect of corporate governance on abnormal accruals**

---

<b>Variable</b>	<b>VIF</b>
POST	4,419
AUD_COM	2,184
POST * AUD_COM	6,014
SIZE	2,024
LOSS	1,958
MB	1,335
LEV	1,529
CFO	7,609
BIG4	1,106

---

**Panel F: The mediating effect of corporate governance on increase**

---

<b>Variable</b>	<b>VIF</b>
POST	4,252
AUD_COM	1,608
POST * AUD_COM	5,095
SIZE	1,978
ROA	8,344
LOSS	1,867
MB	1,335
LEV	1,508
CFO	7,622
BIG4	1,105

---

**Panel G: The mediating effect of corporate governance on audit fee**

---

<b>Variable</b>	<b>VIF</b>
POST	4,104
AUD_COM	1,619
POST * AUD_COM	4,945
SIZE	1,955
ROA	2,292
LOSS	1,880
MB	1,325
LEV	1,483
CFO	8,518
BIG4	1,114
BUSY	1,307

---

**Panel H: The mediating effect of corporate governance on audit delay**

---

<b>Variable</b>	<b>VIF</b>
POST	4,277
AUD_COM	1,623
POST * AUD_COM	5,129
SIZE	1,978
ROA	8,347
LOSS	1,871
MB	1,337
LEV	1,508
CFO	7,625
BIG4	1,117
BUSY	1,250

---

**Panel I: KAM as the main variable of interest with abnormal accruals**

---

<b>Variable</b>	<b>VIF</b>
TOTAL_KAM	1,110
SIZE	1,856
LOSS	1,973
ROA	10,649
MB	1,471
LEV	1,721
CFO	9,517
BIG4	1,098
PRIOR_ACCRUALS	1,128

---

**Panel J: KAM as the main variable of interest with increase**

---

<b>Variable</b>	<b>VIF</b>
TOTAL_KAM	1,107
SIZE	1,858
ROA	10,486
LOSS	1,934
MB	1,430
LEV	1,704
CFO	9,380
BIG4	1,094

---

**Panel K: KAM as the main variable of interest with audit fees**

---

<b>Variable</b>	<b>VIF</b>
TOTAL_KAM	1,117
SIZE	1,200
ROA	13,008
LOSS	2,031
MB	1,445
LEV	1,903
CFO	11,507
BIG4	1,124
INV	1,922
REC	1,564
BUSY	1,334

---

**Panel L: KAM as the main variable of interest with audit delay**

---

<b>Variable</b>	<b>VIF</b>
TOTAL_KAM	1,127
SIZE	6,966
ROA	12,407
LOSS	1,999
MB	1,438
LEV	1,723
CFO	11,070
BIG4	1,126
INV	1,929
BUSY	1,323
LN_FEE	6,250



## 2.2 Heteroscedasticity

<b>Panel A: Abnormal accruals</b>	
Test Statistic	948,112
Test Statistic p-value	6,803
F-Statistic	11,946
F-test p-value	0,000
<b>Panel B: The likelihood of a company reporting a small earnings increase</b>	
Test Statistic	449,220
Test Statistic p-value	1,533
F-Statistic	4,645
F-test p-value	2,245
<b>Panel C: Audit fees</b>	
Test Statistic	645,259
Test Statistic p-value	1,743
F-Statistic	4,892
F-test p-value	0,000
<b>Panel D: Audit delay</b>	
Test Statistic	298,403
Test Statistic p-value	1,995
F-Statistic	1,963
F-test p-value	3,315
<b>Panel E: The mediating effect of corporate governance on abnormal accruals</b>	
Test Statistic	452,077
Test Statistic p-value	0,000
F-Statistic	6,784
F-test p-value	0,000
<b>Panel F: The mediating effect of corporate governance on increase</b>	
Test Statistic	204,438
Test Statistic p-value	0,000
F-Statistic	2,050
F-test p-value	0,000
<b>Panel G: The mediating effect of corporate governance on audit fees</b>	
Test Statistic	233,684
Test Statistic p-value	0,000
F-Statistic	2,246
F-test p-value	0,504
<b>Panel H: The mediating effect of corporate governance on audit delay</b>	
Test Statistic	308,939
Test Statistic p-value	0,000
F-Statistic	3,181
F-test p-value	0,078

<b>Panel I: KAM and abnormal accruals</b>	
Test Statistic	468,406
Test Statistic p-value	9,842
F-Statistic	37,960
F-test p-value	0,000
<b>Panel J: KAM and increase</b>	
Test Statistic	209,389
Test Statistic p-value	2,579
F-Statistic	3,572
F-test p-value	0,000
<b>Panel K: KAM and audit fees</b>	
Test Statistic	184,040
Test Statistic p-value	0,000
F-Statistic	2,561
F-test p-value	0,000
<b>Panel L: KAM and audit delay</b>	
Test Statistic	162,336
Test Statistic p-value	0,000
F-Statistic	2,086
F-test p-value	0,000

## 2.3 Correlation matrixes

**Panel A: Correlation matrix for abnormal accruals**

	ABS_ACC	POST	SIZE	LOSS	MB	LEV	CFO	BIG4
ABS_ACC	1,000	0,012	-0,085	0,056	0,008	0,104	-0,083	-0,010
POST	0,012	1,000	0,108	0,067	-0,05	-0,058	-0,050	-0,003
SIZE	-0,085	0,108	1,000	-0,584	-0,045	0,024	0,400	0,438
LOSS	0,056	0,067	-0,584	1,000	0,0147	-0,114	-0,474	-0,280
MB	0,008	-0,005	-0,045	0,147	1,000	0,017	-0,012	0,005
LEV	0,104	-0,058	0,024	-0,114	0,017	1,000	-0,190	0,039
CFO	-0,083	-0,060	0,400	-0,474	-0,012	-0,190	1,000	0,165
BIG4	-0,010	-0,003	0,438	-0,280	0,005	0,039	0,165	1,000

**Panel B: Correlation matrix for increase**

	INCREASE	POST	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4
INCREASE	1,000	0,094	0,265	0,197	-0,280	-0,012	-0,017	0,176	0,104
POST	0,094	1,000	0,058	-0,043	0,000	-0,008	0,030	-0,061	-0,032
SIZE	0,265	0,058	1,000	0,435	-0,539	0,087	0,114	0,406	0,386
ROA	0,197	-0,043	0,435	1,000	-0,508	-0,044	-0,219	0,851	0,184
LOSS	-0,280	0,000	-0,539	-0,508	1,000	0,026	-0,089	-0,480	-0,245
MB	-0,012	-0,008	-0,087	-0,044	0,026	1,000	-0,005	-0,037	0,000
LEV	-0,017	0,030	0,114	-0,219	-0,089	-0,005	1,000	-0,134	0,052
CFO	0,176	-0,061	0,406	0,851	-0,480	-0,037	-0,134	1,000	0,194
BIG4	0,104	-0,032	0,386	0,184	-0,245	0,000	0,052	0,194	1,000

**Panel C: Correlation matrix for audit fees**

	LN_FEE	POST	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4	INV	REC	BUSY
LN_FEE	1,000	0,044	0,910	0,311	-0,464	-0,062	0,226	0,296	0,355	0,165	0,039	-0,002
POST	0,044	1,000	0,058	-0,042	-0,001	-0,008	0,029	-0,061	-0,032	-0,032	-0,064	0,013
SIZE	0,910	0,058	1,000	0,435	-0,539	-0,087	0,114	0,406	0,385	0,146	-0,056	-0,437
ROA	0,311	-0,042	0,435	1,000	-0,508	-0,043	-0,220	0,850	0,182	0,124	0,103	-0,010
LOSS	-0,46	-0,001	-0,539	-0,508	1,000	0,260	-0,087	-0,800	-0,246	-0,154	-0,263	0,027
MB	-0,062	-0,008	-0,087	-0,043	0,260	1,000	-0,047	-0,037	0,001	-0,003	0,017	0,011
LEV	0,226	0,029	0,114	-0,220	-0,087	-0,047	1,000	-0,133	0,051	0,128	0,325	0,002
CFO	0,296	-0,061	0,406	0,850	-0,800	-0,037	-0,133	1,000	0,193	0,111	0,094	-0,002
BIG4	0,355	-0,032	0,385	0,182	-0,246	-0,246	0,051	0,193	1,000	0,001	0,041	-0,061
INV	0,165	-0,032	0,146	0,124	-0,154	-0,003	0,128	0,111	0,001	1,000	0,064	-0,066
REC	0,039	-0,064	-0,056	0,103	-0,263	0,017	0,325	0,094	0,041	0,064	1,000	0,074
BUSY	-0,02	0,013	-0,437	-0,010	0,027	0,011	0,002	-0,002	-0,061	-0,066	0,074	1,000

---

**Panel D: Correlation matrix for audit delay**


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	DELAY	POST	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4	INV	REC	BUSY	LN_FEE
DELAY	1,000	0,054	-0,238	-0,123	0,175	0,031	0,105	-0,098	-0,076	-0,083	-0,011	0,043	-0,199
POST	0,054	1,000	0,058	-0,042	-0,001	-0,009	0,029	-0,061	-0,032	-0,034	-0,064	0,013	0,044
SIZE	-0,238	0,058	1,000	0,435	-0,539	-0,097	0,114	0,406	0,385	0,146	-0,056	-0,044	0,910
ROA	-0,123	-0,042	0,435	1,000	-0,508	-0,043	-0,220	0,850	0,184	0,124	0,103	-0,010	0,311
LOSS	0,175	-0,001	-0,539	-0,508	1,000	0,026	-0,086	-0,480	-0,246	-0,154	-0,263	0,027	-0,466
MB	0,031	-0,009	-0,097	-0,043	0,026	1,000	-0,05	-0,037	0,001	-0,003	0,017	0,011	-0,062
LEV	0,105	0,029	0,114	-0,220	-0,086	-0,005	1,000	-0,133	0,051	0,128	0,325	0,002	0,226
CFO	-0,098	-0,061	0,406	0,850	-0,480	-0,037	-0,133	1,000	0,193	0,111	0,094	-0,002	0,296
BIG4	-0,076	-0,032	0,385	0,184	-0,246	0,001	0,051	0,193	1,000	0,001	0,041	-0,061	0,355
INV	-0,083	-0,034	0,146	0,124	-0,154	-0,003	0,128	0,111	0,001	1,000	0,064	-0,066	0,165
REC	-0,011	-0,064	-0,056	0,103	-0,263	0,017	0,325	0,094	0,041	0,064	1,000	0,074	0,039
BUSY	0,043	0,013	-0,044	-0,010	0,027	0,011	0,002	-0,002	-0,061	-0,066	0,074	1,000	-0,002
LN_FEE	-0,199	0,044	0,910	0,311	-0,466	-0,062	0,226	0,296	0,355	0,165	0,039	-0,002	1,000

---

**Panel E: Corporate governance and abnormal accruals**


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	ABS_ACC	POST	AUDCOM	POST X AUDCOM	SIZE	LOSS	MB	LEV	CFO	BIG4
ABS_ACC	1,000	-0,009	-0,117	-0,038	-0,248	0,233	0,012	0,035	-0,095	-0,031
POST	-0,009	1,000	0,192	0,821	0,114	-0,003	0,015	0,010	-0,059	0,019
AUDCOM	-0,117	0,192	1,000	0,543	0,384	-0,085	-0,125	0,100	0,035	0,053
POST X AUD_COM	-0,038	0,821	0,543	1,000	0,257	-0,048	-0,071	0,081	-0,024	0,037
SIZE	-0,248	0,114	0,384	0,257	1,000	-0,337	-0,297	0,450	0,273	0,263
LOSS	0,233	-0,003	-0,085	-0,048	-0,337	1,000	-0,046	-0,202	-0,611	-0,099
MB	0,012	0,015	-0,125	-0,071	-0,297	-0,046	1,000	-0,275	0,048	-0,112
LEV	0,035	0,010	0,100	0,081	0,450	-0,202	-0,275	1,000	0,186	0,1225
CFO	-0,095	-0,059	0,035	-0,024	0,273	-0,611	0,048	0,186	1,000	0,096
BIG4	-0,031	0,019	0,053	0,037	0,263	-0,099	-0,112	0,1225	0,096	1,000

---

**Panel F: Corporate governance and increase**


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	INCREASE	POST	AUDCOM	POST X AUDCOM	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4
INCREASE	1,000	0,100	0,037	0,089	0,106	0,216	-0,218	0,131	-0,007	0,186	0,042
POST	0,100	1,000	0,140	0,839	0,090	-0,039	-0,029	0,014	0,011	-0,050	0,020
AUDCOM	0,037	0,140	1,000	0,421	0,343	0,072	-0,088	-0,111	0,099	0,062	0,060
POST X AUDCOM	0,089	0,839	0,421	1,000	0,221	-0,008	-0,064	-0,063	0,076	-0,021	0,040
SIZE	0,106	0,090	0,343	0,221	1,000	0,312	-0,342	-0,300	0,452	0,271	0,265
ROA	0,216	-0,039	0,072	-0,008	0,312	1,000	-0,627	0,077	0,193	0,928	0,083
LOSS	-0,218	-0,029	-0,088	-0,064	-0,342	-0,627	1,000	-0,038	-0,198	-0,583	-0,090
MB	0,131	0,014	-0,111	-0,063	-0,300	0,077	-0,038	1,000	-0,284	0,049	-0,117
LEV	-0,007	0,011	0,099	0,076	0,452	0,193	-0,198	-0,284	1,000	0,162	0,135
CFO	0,186	-0,050	0,062	-0,021	0,271	0,928	-0,583	0,049	0,162	1,000	0,081
BIG4	0,042	0,020	0,060	0,040	0,265	0,083	-0,090	-0,117	0,135	0,081	1,000

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**Panel G: Corporate governance and audit fees**


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	LN_FEE	POST	AUDCOM	POST X AUDCOM	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4	BUSY
LN_FEE	1,000	0,078	0,301	0,193	0,911	0,258	-0,310	-0,265	0,424	0,217	0,206	-0,021
POST	0,078	1,000	0,133	0,832	0,092	-0,044	-0,023	0,009	0,015	-0,048	0,022	-0,015
AUDCOM	0,301	0,133	1,000	0,420	0,355	0,068	-0,077	-0,112	0,115	0,064	0,056	-0,071
POST X AUD_COM	0,193	0,832	0,420	1,000	0,0230	-0,010	-0,060	-0,066	0,080	-0,017	0,034	-0,018
SIZE	0,911	0,092	0,355	0,0230	1,000	0,326	-0,008	-0,282	0,450	0,290	0,258	-0,082
ROA	0,258	-0,044	0,068	-0,010	0,326	1,000	-0,635	0,085	0,198	0,936	0,083	-0,026
LOSS	-0,310	-0,023	-0,077	-0,060	-0,008	-0,635	1,000	-0,055	-0,198	-0,592	-0,075	-0,018
MB	-0,265	0,009	-0,112	-0,066	-0,282	0,085	-0,055	1,000	-0,265	0,055	0,097	0,041
LEV	0,424	0,015	0,115	0,080	0,450	0,198	-0,198	-0,265	1,000	0,164	0,121	-0,055
CFO	0,217	-0,048	0,064	0,017	0,290	0,936	-0,592	0,055	0,164	1,000	0,049	-0,020
BIG4	0,206	0,022	0,056	0,034	0,258	0,083	-0,075	0,097	0,121	0,049	1,000	-0,080
BUSY	-0,021	-0,015	-0,071	-0,018	-0,082	-0,026	-0,018	0,041	-0,055	-0,020	-0,080	1,000

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**Panel H: Corporate governance and audit delay**


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	DELAY	POST	AUDCOM	POST X AUDCOM	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4	BUSY
DELAY	1,000	0,064	-0,115	-0,001	-0,389	-0,118	0,165	0,258	-0,176	-0,090	-0,154	-0,011
POST	0,064	1,000	0,140	0,836	0,090	-0,039	-0,029	0,014	0,010	-0,050	0,020	-0,016
AUDCOM	-0,115	0,140	1,000	0,421	0,343	0,071	-0,087	-0,111	0,100	0,062	0,060	-0,068
POST X AUDCOM	-0,001	0,836	0,421	1,000	0,221	-0,008	-0,064	-0,063	0,076	-0,021	0,040	-0,017
SIZE	-0,389	0,090	0,343	0,221	1,000	0,312	-0,342	-0,298	0,452	0,271	0,265	-0,061
ROA	-0,118	-0,039	0,071	-0,008	0,312	1,000	-0,627	0,077	0,193	0,928	0,084	-0,024
LOSS	0,165	-0,029	-0,087	-0,064	-0,342	-0,627	1,000	-0,038	-0,120	-0,582	-0,090	-0,023
MB	0,258	0,014	-0,111	-0,063	-0,298	0,077	-0,038	1,000	-0,284	0,0490	-0,117	0,023
LEV	-0,176	0,010	0,100	0,076	0,452	0,193	-0,120	-0,284	1,000	0,162	0,135	-0,040
CFO	-0,090	-0,050	0,062	-0,021	0,271	0,928	-0,582	0,0490	0,162	1,000	0,081	-0,018
BIG4	-0,154	0,020	0,060	0,040	0,265	0,084	-0,090	-0,117	0,135	0,081	1,000	-0,069
BUSY	-0,011	-0,016	-0,068	-0,017	-0,061	-0,024	-0,023	0,023	-0,040	-0,018	-0,069	1,000

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**Panel I: KAM and abnormal accruals**


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	ABS_ACC	KAM	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4	PRIOR_ACCRUALS
ABS_ACC	1,000	-0,016	-0,085	-0,089	0,056	0,008	0,104	-0,083	-0,010	-0,985
KAM	-0,016	1,000	0,219	0,057	0,015	-0,194	0,129	0,072	-0,002	-0,084
SIZE	-0,085	0,219	1,000	0,402	-0,584	-0,045	0,024	0,400	0,437	0,046
ROA	-0,089	0,057	0,402	1,000	-0,474	-0,016	-0,233	0,895	0,149	0,038
LOSS	0,056	0,015	-0,584	-0,474	1,000	0,147	-0,114	-0,474	-0,270	-0,033
MB	0,008	-0,194	-0,045	-0,016	0,147	1,000	0,017	-0,012	0,005	-0,005
LEV	0,104	0,129	0,024	-0,233	-0,114	0,017	1,000	-0,190	0,039	-0,081
CFO	-0,083	0,072	0,400	0,895	-0,474	-0,012	-0,190	1,000	0,165	0,045
BIG4	-0,010	-0,002	0,437	0,149	-0,270	0,005	0,039	0,165	1,000	-0,014
PRIOR_ACCRUALS	-0,985	-0,084	0,046	0,038	-0,033	-0,005	-0,081	0,045	-0,014	1,000

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**Panel J: KAM and increase**


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	INCREASE	KAM	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4
INCREASE	1,000	-0,058	0,232	0,061	0,015	-0,203	0,127	0,074	0,012
KAM	-0,058	1,000	0,091	0,232	-0,235	0,112	0,007	0,212	0,050
SIZE	0,232	0,091	1,000	0,296	-0,343	-0,329	0,489	0,281	0,250
ROA	0,061	0,232	0,296	1,000	-0,645	0,071	0,251	0,943	0,033
LOSS	0,015	-0,235	-0,343	-0,645	1,000	0,002	-0,244	-0,593	-0,069
MB	-0,203	0,112	-0,329	0,071	0,002	1,000	-0,376	0,031	-0,102
LEV	0,127	0,007	0,489	0,251	-0,244	-0,376	1,000	0,255	0,045
CFO	0,074	0,212	0,281	0,943	-0,593	0,031	0,255	1,000	0,405
BIG4	0,012	0,050	0,250	0,033	-0,069	-0,102	0,045	0,041	1,000

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**Panel K: KAM and audit fees**


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	LN_FEE	KAM	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4	INV	REC	BUSY
LN_FEE	1,000	0,232	0,893	0,218	-0,282	-0,256	0,428	0,207	0,160	0,184	-0,002	-0,048
KAM	0,232	1,000	0,212	0,055	0,035	-0,183	0,102	0,069	-0,010	-0,001	-0,076	0,081
SIZE	0,893	0,212	1,000	0,311	-0,353	-0,312	0,491	0,297	0,231	0,195	-0,010	-0,112
ROA	0,218	0,055	0,311	1,000	-0,649	0,076	0,256	0,951	0,033	0,183	0,233	-0,411
LOSS	-0,282	0,035	-0,353	-0,649	1,000	-0,010	-0,244	-0,601	-0,067	-0,239	-0,268	0,073
MB	-0,276	-0,183	-0,312	0,076	-0,010	1,000	-0,371	0,031	-0,081	-0,056	0,141	0,112
LEV	0,428	0,102	0,491	0,256	-0,244	-0,371	1,000	0,263	0,031	0,072	0,205	-0,116
CFO	0,207	0,069	0,297	0,951	-0,601	0,031	0,263	1,000	0,044	0,138	0,164	-0,058
BIG4	0,160	-0,010	0,231	0,033	-0,067	-0,081	0,031	0,044	1,000	-0,036	-0,034	-0,155
INV	0,184	-0,001	0,195	0,183	-0,239	-0,056	0,072	0,138	-0,036	1,000	0,049	-0,098
REC	-0,002	-0,076	-0,010	0,233	-0,268	0,141	0,205	0,164	-0,034	0,049	1,000	0,136
BUSY	-0,048	0,080	-0,112	-0,411	0,073	0,112	-0,116	-0,058	-0,155	-0,098	0,136	1,000

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**Panel L: KAM and audit delay**


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	DELAY	KAM	SIZE	ROA	LOSS	MB	LEV	CFO	BIG4	BUSY	INV	LN_FEE
DELAY	1,000	0,001	-0,425	-0,126	0,200	0,168	-0,112	-0,104	0,198	0,095	-0,233	-0,362
KAM	0,001	1,000	0,212	0,055	0,035	-0,183	0,102	0,069	-0,010	0,080	-0,001	0,232
SIZE	-0,425	0,212	1,000	0,311	-0,353	-0,312	0,491	0,297	0,231	-0,112	0,195	0,893
ROA	-0,126	0,055	0,311	1,000	-0,649	0,076	0,256	0,951	0,033	-0,041	0,183	0,218
LOSS	0,200	0,035	-0,353	-0,649	1,000	-0,010	-0,244	-0,601	-0,067	0,073	-0,239	-0,282
MB	0,168	-0,183	-0,312	0,076	-0,010	1,000	-0,371	0,031	-0,081	0,113	-0,056	-0,276
LEV	-0,112	0,102	0,491	0,256	-0,244	-0,371	1,000	0,263	0,031	-0,116	0,072	0,428
CFO	-0,104	0,069	0,297	0,951	-0,601	0,031	0,263	1,000	0,044	-0,058	0,138	0,207
BIG4	0,198	-0,010	0,231	0,033	-0,067	-0,081	0,031	0,044	1,000	-0,155	-0,036	0,160
BUSY	0,095	0,080	-0,112	-0,041	0,073	0,113	-0,116	-0,058	-0,155	1,000	-0,098	-0,48
INV	-0,233	-0,001	0,195	0,183	-0,239	-0,056	0,072	0,138	-0,036	-0,098	1,000	0,184
LN_FEE	-0,362	0,232	0,893	0,218	-0,282	-0,276	0,428	0,207	0,160	-0,048	0,184	1,000



