Client importance and audit quality

This study analyzes the importance of the client in audit quality and whether this relationship is influenced by the change in the audit report, imposed by the European Union, which occurred from 2016. The sample consists of Spanish listed companies for the period from 2010 to 2022. The importance of the client is measured by audit/non-audit fees at the audit partner, audit office and audit firm level. While audit quality is measured through discretionary accruals and modified opinion, and as an additional test, through the number of key audit matters. It is concluded that the importance of the client increases the quality (measured by discretionary accruals) of the audit at the audit office level, but that it decreases it at the audit firm level, and no conclusion can be drawn in the case of the audit partner. When audit quality is measured through the modified opinion, no conclusion can be drawn regarding its relationship with the importance of the client. Regarding the influence of the audit report on the relations between the importance of the client and audit quality, it is concluded that this has decreased at the office audit level.

Keywords: client importance; audit quality; discretionary accruals; modified opinion.

M41 Accounting; M42 Auditing

1. Introduction

Auditing generates revenue in the form of fees, for example, for the audit partner, audit office or audit firm. This benefit is often associated with the concept of economic dependence, since some clients may be very important to the audit partner, audit office and audit firm because they could represent a large proportion of its revenue. However, there is a litigation and reputation issue, particularly when scandals or cases arise (Reynolds & Francis, 2001). Thus, we study whether client importance on the audit partner, audit office and audit firm has a positive or no influence on audit quality.

Furthermore, the European Union (EU) issued Directive 2014/56/EU and Regulation (EU) No. 537/2014 of the European Parliament and of the Council in 2014, applicable from June 2016, imposing some changes, especially in relation to the content and structure of the audit report. These changes are limited to the mandatory disclosure of the name and corresponding signature of the audit partner, the mandatory disclosure, in a specific paragraph, of events that cause material uncertainty regarding the audited company's ability to maintain its activity in the long term, the mandatory disclosure of key audit matters (KAM), the prohibition of the provision of a wide range of services other than auditing, among others. These changes can influence audit quality and thus we study the effect of these changes on the influence of client importance on audit quality.

The potential impact of a single client is certainly reduced in an audit firm, as it has a wide variety of clients (Reynolds & Francis, 2001). However, this may not be the case in an audit firm, and thus, it is more likely that there will be at least one client that represents a large proportion of the firm's revenue, making the client in question significantly more important. In addition, the firm constitutes the decision-making unit and is the place from which auditors contact clients, perform audit work and issue their report (Chung & Kallapur, 2003; Ferguson et al., 2004; Gaver & Paterson, 2007; Li, 2009;

Reynolds & Francis, 2001). Reynolds and Francis (2001) analyze companies listed in the United States of America (USA) audited by the Big 4 and conclude that audit quality is not compromised by the importance of the client. Hunt and Lulseged (2007) reach the same conclusion by analyzing listed companies. Chung and Kallapur (2003) find no relationship between the importance of the client and audit quality. Gaver and Paterson (2007) conclude similarly to Chung and Kallapur (2003) but for companies in the insurance industry.

However, it is also important to study the importance of the client at the audit partner level (DeFond & Francis, 2005). There are some non-financial benefits associated with retaining a significantly important client for the audit partner (such as job security, career promotion opportunities, among others), which can influence the auditor's independence (Chi et al., 2012). Furthermore, the execution of audit work is the responsibility of the audit partner and, therefore, the loss of a significantly important client, or the attraction of a new client, has greater economic importance (DeFond & Francis, 2005). Hossain et al. (2023) conclude that, at the audit partner level, audit quality increases with client importance, but at the audit firm and office level, they find no association between client importance and audit quality. Chen and Sun (2010) for a sample of Chinese companies from 1995 to 2004 conclude that, at the audit partner level, client importance jeopardizes audit quality in the period before 2001. However, after 2001, there is evidence of conservatism on the part of auditors, as they are even more demanding when dealing with significantly more important clients. Chi et al. (2012) study listed and unlisted companies and Big 4 and non-Big 4 audit firms and conclude that the audit partner does not compromise his or her independence, unlike in the case of companies audited by non-Big 4 firms.

The measurement of client importance is done in several ways (Chung & Kallapur, 2003; Craswell et al., 2002; Li, 2009; Reynolds & Francis, 2001; Gaver & Paterson, 2007). The first is for the total fees received by an audit firm in relation to total fees. A second is for the non-audit fees received by an audit firm in relation to the total fees received by that firm. A third is for the total fees received by an audit office in relation to the total fees received by that office. A fourth is for the non-audit fees received by an audit office in relation to the total fees received by that office. A fifth and final one is for the audit fees received by an audit partner in relation to the total fees received by that audit partner. Thus, we use a three-level measure (audit firm level, office level and audit partner level) to measure whether client importance is associated with audit quality. We follow Hossain et al. (2023) in separating the effects of client importance on audit quality at an audit partner level and not just at the audit firm/audit office levels. We also use separately the effects of audit and non-audit fees on audit quality.

The sample comprises listed companies of the Madrid Stock Exchange for the period between 2010 and 2022 since the objective is to analyze companies located in a country with strong legislation and less investor protection in opposite of the US and Australia settings (Craswell et al., 2002; Hossain et al., 2023; Reynolds & Francis, 2001).

To measure audit quality, we use earnings management and modified opinions, meaning that the higher likelihood of issuing a modified opinion and lower discretionary accruals are evidence of higher audit quality. As an additional test we use the number of KAM as a proxy for audit quality.[1]

[1] The International Audit and Assurance Board (IAASB) (2013) understands that changing the audit report may improve the audit quality or the user's perception of it.

Regarding the relationship between client importance and audit quality, the results do not allow us to conclude, based on discretionary accruals, that client importance affects audit quality at the audit partner and audit firm level (in this case measured by non-audit fees). When client importance is measured at the audit office's level, audit quality is positively related, and the opposite is true for the audit firm, confirming the theory of economic dependence. When audit quality is measured by issuing a modified audit report, it cannot be inferred that client importance affects it.

When the impact of changes in the audit report is related to the relationship between the importance of the client and audit quality (measured either by discretionary accruals or modified audit report), the results do not allow us to conclude at the partner and audit firm level that client importance (measured in this case by total fees) affects audit quality (except in the case of modified opinion). However, when client importance is measured by non-audit fees, this reduces audit quality (measured by discretionary accruals) at the audit firm level.

Using the number of KAMs as a proxy for audit quality, the results confirm that client importance at the audit partner, audit office and audit firm level positively influences audit quality.

This study makes several contributions to the literature on auditing. One, is that it complements the study by Hossain et al. (2023). In addition to not using a sample from an Anglo-American country where investor protection is strong, it measures the client importance at the audit partner level and uses the number of KAMs as a proxy for audit quality. By using a sample from Spain, we are studying a country where investor protection is weak, there is strong legislation and therefore the audit is more important. Furthermore, we study the impact of changes in the audit report on the relationship between client importance and audit quality. Studies that analyze client importance in

audit quality and at the audit partner level are scarce. And, providing non-audit services to audited companies is a topic of concern for regulatory bodies that want to ensure that the auditor is independent, and thus, we study whether providing non-audit services is a threat to audit quality.

The paper proceeds as follows. Section two summarizes studies on client importance and audit quality and develops the hypotheses. In section three we present the methodology (sample and the research design). Section four presents the results, discussion and an additional test using the number of KAM as a proxy for audit quality. The final section presents a summary and the conclusions.

2. Literature review and development of hypotheses

2.1. Client importance and audit quality

The relationship between the client and the auditor implies the existence of both benefits and some costs (Reynolds & Francis, 2001). The benefits come from the revenue that the auditor obtains from his clients. These benefits generate an incentive for the auditor to retain his clients, an incentive that is greater the more significant the client is in relation to the auditor's overall set of clients, with the risk of compromising his independence (Chen & Sun, 2010). Reynolds and Francis (2001) call this incentive economic dependence. Hunt and Lulseged (2007) say the same, that this economic dependence increases with the relative audit client importance, since larger clients pay higher fees, consequently there is a risk that the auditor will compromise his independence. On the other hand, costs arise from the possible negative impact on the auditor's reputation, as well as from possible legal costs when the auditor compromises his objectivity and independence in the relationship with his client (Reynolds & Francis, 2001). These costs motivate the auditor to maintain his independence, which is why this motivation is called

reputation protection (Reynolds & Francis, 2001).

When studying the relationship between client importance and audit quality at the audit firm level, the loss of a client has little impact since the large number of clients of a Big 4 firm ensures that no client is significantly important to the firm in terms of revenue (Reynolds & Francis, 2001). When the analysis is reduced to the audit office level, the loss of a client may already cause a significant loss of revenue for the office in question (resulting in dismissals and lower salaries) and, in addition, the office constitutes the decision-making unit and is the place from which auditors contact clients, perform audit work and issue their report (Chung & Kallapur, 2003; Ferguson et al., 2004; Gaver & Paterson, 2007; Li, 200; Reynolds & Francis, 2001).

Reynolds and Francis (2001), based on the USA listed companies audited by the Big 4 in 1996, conclude that clients with greater relative importance do not receive more favorable treatment either in terms of earnings management or in terms of issuing going concern opinions, suggesting that economic dependence does not outweigh the concern that auditors have regarding their reputation. Hunt and Lulseged (2007) conclude the same but for companies audited by Big 4 and non-Big 4 firms for the years 2001 to 2003.

Chung and Kallapur (2003) analyze the impact of client importance at the audit office level on audit quality (measured through discretionary accruals by the Jones (1991) model), using a sample of companies in 2003, and find no relationship between client importance and audit quality. Gaver and Paterson (2007) do the same but use a different model from Jones (1991) and reach the same conclusions. Chen and Sun (2010) also report that client importance has no significant impact on audit quality.

Since the audit work is carried out by the audit partner from an audit office, generally located in the same location as the client's location, the loss of a significantly important client, or a new client, has greater economic importance for the auditor and for

the respective audit office than for the audit firm (DeFond & Francis, 2005). Furthermore, there are some non-financial benefits associated with retaining a significantly important client for the audit partner, such as job security, opportunities for career promotions, among others, which can influence the auditor's independence (Chi et al., 2012). On the other hand, the requirement, in some countries, for the audit partner to sign the audit report serves as an incentive for the latter not to compromise his independence, since his reputation may be put at risk (Chi et al., 2012). Despite the recommendation of DeFond and Francis (2005), there are few studies that analyze client importance at the audit partner level (only Chen and Sun (2010), Chi et al. (2012) and Hossain et al. (2023) do that), while there are several studies at the audit office and audit firm level.

Hossain et al. (2023) conclude (for Australian companies) that audit quality increases when client importance increases at the audit partner level. However, when client importance is measured across the audit office and audit firm, they find no association with audit quality. Chen and Sun (2010), analyzing Chinese companies for the years 1995 to 2004, conclude that before 2001, client importance at the audit partner level decreases audit quality, but after this period they are more conservative, that is, audit quality increases. At the audit office level, they find no evidence that client importance has an impact on audit quality, supporting the recommendation of DeFond and Francis (2005). Chi et al. (2012) for listed and unlisted companies and audited by Big 4 and non-Big 4, conclude that in the case of Big 4, the audit partner does not compromise their independence, but in the case of non-Big 4, it does. Goodwin and Wu (2016), studying Australian companies from 1999 to 2010, conclude that client importance at the audit partner level does not influence audit quality (measured by discretionary accruals and the issuance of a going concern opinion).

Currently, there is a growing increase in the non-audit fees and, therefore, there is concern on the part of regulatory bodies about the impact of this reality on audit quality (Lisic et al., 2019). Besides the economic dependence that may arise, the non-audit fees may appear as an incentive to create a closer link between the audit client and the auditors, thus jeopardizing audit quality (Felix. et al., 2005). Ferguson et al. (2004) study listed companies in the United Kingdom (UK) from 1996 to 1998 and the impact of audit and non-audit services on earnings management. They conclude that the greater the economic dependence between the auditor and the client, caused by the non-audit services, the less likely the auditor is to prevent earnings management practices by the client. These irregular practices consisted of overvaluation of revenue, incorrect capitalization and delay in recognizing expenses, overestimates in the residual value of assets, inadequate estimates of the fair value of some assets, among others.

Li (2009) analyzes the influence of non-audit fees on auditor independence before and after 2000, concluding that before that year there is no relationship, but after that year there is clear evidence that non-audit fees do not affect auditor independence. Craswell et al. (2002) conclude similarly that auditors appear to be willing to issue qualified opinions regardless of the economic client importance (measured by non-audit fees). Lisic et al. (2019) also fails to detect evidence that audit quality is compromised, and Kinney et al. (2004) even detects that when it comes to tax and tax management services, audit quality increases.

Thus, although there is ongoing concern that providing simultaneous audit and non-audit services may affect the auditor's professional judgment as well as his/her independence and objectivity, several studies have found a lack of relationship between the respective elements or even concluded that there is a positive relationship (Li, 2009; Kinney et al., 2004). These findings are consistent with the argument that auditors report

more conservatively when dealing with clients of high relative importance, mainly associated with non-audit services, to protect their reputation and avoid legal costs (Li, 2009).

As the results regarding the influence of client importance (measured both through audit and non-audit services) on audit quality are contradictory, not all studies have focused on the different ways of measuring client importance (firm, office and partner) and were conducted essentially in countries with strong investor protection, we present the first research hypothesis (H1):

H1: Client importance measured by audit and non-audit fees has a positive influence on audit quality.

2.2 New audit report

After the 2008 financial crisis the audit standard setters began to change the audit report. In 2006 the IAASB and the Auditing Standards Board (ASB) of the American Institute of Certified Public Accountants (AICPA) asked to academic research to provide insights on user's perception on audit and auditor report, being those research studies finished in 2009. The objective was to enhance the communicative value of the audit report. The audit report is the only means that the auditor by which he/she communicates information to the users of the audit of financial statements (IAASB, 2013). However, the previous audit report was viewed as highly standardized and so insufficiently useful (Church et al., 2008).

The project was initiated in May 2011 when the IAASB issued a consultation paper (CP), Enhancing the value of auditor reporting: exploring options for change, to improve the communicative value of the audit report by changing its structure and content (IAASB, 2011). The project was finished in January 2015 when IAASB released the new ISA 701 on communicating KAM, as well the revised ISA 700 (Revised) on forming an

opinion and reporting on financial statements, ISA 570 (Revised) on going concern, ISA 705 (Revised) on modifications of the opinion, and ISA 706 (Revised) on emphasis of matter paragraphs, to be applied for periods ending on or after 15 December 2016 (IAASB, 2015).

The main changes of the IAASB's project and mandatory for listed companies were a new section in the audit report to communicate KAM. KAM are those matters which are more significant for the auditor's judgment, such as areas of higher assessed risks of material misstatement, areas in financial statements involving significant management judgement (including estimates) and the effect on the audit of significant events. Other changes were the disclosure of the name of the engagement partner for listed companies and mandatory ones for all audits, where to present the opinion section first followed by the basis for opinion section. Moreover, the auditor must add a separate section when a material uncertainty about going concern exists and an affirmative statement about the auditor's independence and fulfilment of relevant ethical responsibilities, with disclosure of the jurisdiction of origin of those requirements. The last change is enhanced description of the responsibilities of the auditor and key features of the audit.

The EU response to the 2008 financial crisis was the release of the green paper Audit policy: lessons from the Crisis, questioning the role of the statutory audit. To improve audit quality in public-interest-entities (PIE) the EU issued in April 2014 the Regulation No. 537/2014, and to enhance the single market for statutory audits issued at the same date the Directive 2014/56/EU, both by the European Parliament and of the Council, which came into effect for accounting periods beginning on or after June 2016. The main provisions included in the Regulation and Directive were the prohibition and capping of non-audit services, mandatory firm rotation, auditor reporting (namely a

description of the most significant assessed risks of material misstatement, which is similar to one type of KAM), new definitions (example of PIE), independence and objectivity, quality assurance and adoption of ISA (UE, 2014a; UE, 2014b).

In the US the PCAOB was concerned too about the lack of relevance of the audit report and began a project to change the form and content of the audit report (PCAOB, 2011). In 2013 the PCAOB released a proposed new auditing standard to change the audit report (PCAOB, 2013) and in 2017 the PCAOB issued a new auditing standard (AS 3101) requiring the communication on the audit report of critical audit matters (CAM) (the same as KAM), the addition on the audit report of elements related to auditor independence, auditor tenure, and the auditor's responsibilities, and enhancements to existing language in the auditor's report related to the auditor's responsibilities for fraud and notes to the financial statements. These provisions are to be effective for fiscal years ending on or after 30 June 2019 in the case of large accelerated fillers and 15 December 2020 for other companies (PCAOB, 2017). Furthermore, the PCAOB requires an opinion of internal control or in the audit report or in a separate report (Prasad & Chand, 2017).

One of the first countries to require disclosure of the KAM (the one related to risks of material misstatements) was the UK through publication in 2013 of ISA 700 (UK and Ireland) by the FRC, mandatory for audits of financial statements for periods beginning on or after 1 October 2012, and companies with a premium listing of equity shares on London Stock Exchange (LSE) (FRC, 2013). This change in the audit report requires a description of risks of material misstatement (one of possible KAM), determination of materiality and explanation of audit scope. In 2016 the FRC published ISA 701 (UK and Ireland) based in IAASB's ISA 701 required for audits on or after 17 June 2016 (FRC, 2016).

Another country where an expanded audit report became mandatory was France, in 2003, including the justifications of assessments (JOA), like KAM, being those matters that are important in understanding financial statements, namely the implementation of accounting policies, critical accounting estimates and elements of internal control (Bédard et al., 2019).

The changes on the audit report may have a positive impact on audit quality or users' perception of it (IAASB, 2013; PCAOB 2016). This could be achieved by providing information about KAM (IAASB 2011; PCAOB 2013). Audit quality may increase because management can adopt more acceptable accounting behavior and auditors can perform additional procedures (Reid et al. 2019). Reid et al. (2019) analyze non-financial UK listed firms and find evidence of improved audit quality just like Li et al. (2018) but for New Zealand non-financial listed firms. However, Gutierrez et al. (2018) do not find, for non-financial UK listed firms, evidence of the new audit report's influence on audit quality, like Al-mulla and Bradbury (2012) but for New Zealand listed companies and just like Bédard et al. (2019), but for French listed companies.

As auditing standard setters believe that disclosing KAMs can increase audit quality, despite the contradictory conclusions of studies regarding the influence of KAMs on audit quality, we define the second research hypothesis (H2) regarding the effect of client importance on audit quality:

H2: Changes in the audit report have a positive impact on the influence of client importance, measured by audit and non-audit fees, on audit quality.

3. Methodology

3.1. Sample

The sample consists of companies listed on the Madrid Stock Exchange and the analysis

period covers the years between 2010 and 2022. The initial sample consists of 1560 observations as it is shown in Table 1. We exclude companies for which we do not have all the financial data for the period of analysis, thus withdrawing 689 observations. Companies in the financial sector are excluded, thus withdrawing 65 observations, considering the different specifications and legislation of this sector. There are two companies that have joint audits that are not removed because it is possible to define the main auditor. The financial data is obtained from Refinitiv Eikon and the auditors' name, type of audit report issued, audit and non-audit fees and number of KAM are hand collected from the annual report.

See Table 1

3.2. Research design

We want to test whether client importance influences audit quality and thus we use the following ordinary least squares (OLS)/logistic regression (equation (1)):

$$AQ_{jt} = \alpha_0 + \alpha_1 FEES_{jt} + \alpha_2 SIZE_{jt} + \alpha_3 LEV_{jt} + \alpha_4 ROA_{jt} + \alpha_5 PBV_{jt} + \alpha_6 LOSS_{jt} + \alpha_7 CFO_{jt} + \alpha_8 BIG4_{jt} + \alpha_9 TAA_{jt} + \alpha_{10} ID + \alpha_{11} Year + \varepsilon_{jt} \quad (1)$$

where the variable *AQ* is audit quality measured by two proxies. Our first measure is the absolute value of discretionary accruals (*AQ*-|*DA*|) calculated by the Jones (1991) model, modified by Kothari et al. (2005). The lower is *AQ*-|*DA*| the higher is audit quality. Our second measure is the likelihood of issuing a modified opinion (including explanatory paragraphs) (*AQ-MO*), which is a dummy variable being 1 if an auditor issues a modified opinion for the client in the current year, and 0 otherwise. The higher the likelihood of issuing a modified opinion the higher is audit quality. All the variables are defined in Appendix.

Our variable of interest is *FEES* that is the audit and non-audit fees to measure the client importance on a audit firm/audit office/audit partner level. We include fixed effects for industry and year.

The other variables are control variables. We include client (firm) size (*SIZE*) measured by the natural logarithm of total assets. Smaller clients are more likely to make accounting errors and therefore more likely to receive qualified opinion (Craswell et al., 2002) and are more likely to manage earnings (Hossain et al., 2023). Leverage (*LEV*) is measured by the quotient between liabilities and assets. Companies with a higher leverage ratio are expected to have greater incentives to manage earnings (Reynolds & Francis, 2001). Return on assets (*ROA*) is calculated by the ratio of net income to total assets. Losses (*LOSS*) is a variable that takes the value of 1 if net income is negative and 0 otherwise. Both variables, *ROA* and *LOSS*, are indicative of the operational risk of the business and influence the level of auditor independence and the audit quality (Craswell et al., 2002), with companies with negative results in consecutive years having a greater probability of bankruptcy (Reynolds & Francis, 2001; Li, 2009). Price book value (*PBV*) is the ratio of market value to book value. The *PBV* will be higher the smaller the discretionary accruals and the less likely they are to receive a qualified opinion from the auditor (Hossain et al., (2023). Cash flow from operations (*CFO*) is the ratio of cash flow from operations to total assets and is negatively related to accruals accounting (Chi et al. (2012). Big 4 (*BIG4*) takes the value of 1 if the company has a Big 4 auditor and 0 otherwise. Total accruals (*TAA*) are calculated using balance sheet accrual estimates and divided by total assets.

To measure audit quality our first measure is the absolute value of discretionary accruals (AQ-$|DA|$) calculated by the Jones (1991) cross-sectional model modified by

Kothari et al. (2005) being the absolute value of residuals from the following OLS regression as equation (2) estimated by year for each industry:

$$TA_{jt}/A_{jt-1} = \alpha_0 + \alpha_1(1/A_{jt-1}) + \alpha_2(\Delta REV_{jt}/A_{jt-1}) + \alpha_3(PPE_{jt}/A_{jt-1}) + \alpha_4 ROA_{jt} + \varepsilon_{jt} \quad (2)$$

where *TA* is total accruals; *A* is total assets; ΔREV is the change in revenues (revenue in period *t* less revenue in period *t-1)*; *PPE* is the gross amount of property, plant, and equipment; and the *ROA* is the return on assets.

All the variables are lagged by total assets, intending to mitigate heteroskedasticity in residuals (White, 1980). As in Kothari et al. (2005), our model has a constant in the estimation providing an additional control for heteroskedasticity not alleviated by using assets as the deflator, mitigating problems stemming from an omitted size variable.

Total accruals are calculated using balance sheet accrual estimates as shown below (equation (3):

$$TA_{jt} = (\Delta CA - \Delta Cash) - (\Delta CL - \Delta LOANS) - Dep \quad (3)$$

where *ΔCA* is change in current assets, *ΔCASH* is change in cash, *ΔCL* is change in current liabilities and *ΔLoans* is change in current debt and *DEP* is depreciation.

To find out if client importance affects audit quality, we use several fee measures (Craswell et al., 2002; Chung & Kallapur, 2003; Ferguson et al., 2004; Gaver & Paterson, 2007; Ghosh et al., 2009; Hunt & Lulseged, 2007; Li, 2009; Hossain et al., 2023). One first measure of fees is the total fees received by an audit firm in relation to the total fees received by that firm (*FIRM*). The total fees of the audit firm are calculated on a sample basis. The non-audit fees in relation to the total non-audit fees are separate (also calculated on a sample basis) (*FIRM_NAF*).

To the extent that the loss of a client for the firm is likely to have a small impact on the audit firm revenue, we measure client importance at the audit office level (Reynolds & Francis, 2001). Thus, our second fee measure is the ratio of the total fees received by the audit office from the client to the total fees received by that audit office from all clients (*OFFICE*). To measure the importance of the firm based on non-audit fees, we use the *OFFICE_NAF* variable, which is the proportion of the client's non-audit fees in the total fees received from all clients.

Because audit fees affect audit partner compensation (DeFond & Francis, 2005; Hossain et al, 2023) we use as our third fees measure the audit fees at a audit partner level (*PARTNER*). We calculate this variable by the ratio between the audit fees received by the engaged audit partner for the audit of a client in relation to the total audit fees received by that audit partner.

To test the influence of the new audit report on the relationship between client importance and audit quality we use the following ordinary least squares (OLS)/logistic regression (equation (4)):

$$AQ_{jt} = \alpha_0 + \alpha_1 FEES_{jt} + \alpha_2 POST + \alpha_3 FEES_{jt} \times \alpha_4 POST + \alpha_5 SIZE_{jt} + \alpha_6 LEV_{jt} + \alpha_7 ROA_{jt} + \alpha_8 PBV_{jt} + \alpha_9 LOSS_{jt} + \alpha_{10} CFO_{jt} + \alpha_{11} BIG4_{jt} + \alpha_{12} TAA_{jt} + \alpha_{10} ID + \varepsilon_{jt} \quad (4)$$

We added to the equation (1) one new variable. The variable is *POST* that takes the value of 1 for periods after 2016 and 0 otherwise. Our variable of interest is the interaction between *POST* and *FEES*. We expect that the sign of the coefficient of the interaction to be negative (positive), meaning that after the changing of the audit report audit quality improves (discretionary accruals (modified opinion)).

4. Results

4.1. Descriptive statistics

Table 2 provides descriptive statistics for all the variables of the discretionary accruals and modified opinion proxies for audit quality. The variables with extreme observations are winsorized at the top and bottom 1%/5%. The mean of the variables that measure client importance (*PARTNER*, *OFFICE* and *OFFICE_NAF*, *FIRM* and *FIRM_NAF*) confirm that fees are more significant at the audit partner level, contrary to what is observed at the audit firm level where the mean is much lower, which confirms the results of Reynolds and Francis (2001). The mean of 0.159 for the *DO_MO* variable means that most opinions are clean. The *SIZE* variable has a mean of approximately 9,064,585.94 thousand euros, i.e., most of the companies analyzed are large companies. The *LEV* variable shows a mean higher than 0.5 (0.666), meaning that the sample is made up of companies that, for the most part, have a large proportion of their liabilities over their resources (assets). The *ROA* is considerably low (1.3%), i.e., the profitability that, on mean, companies generate in relation to assets is low. The *PBV* has a mean of 1.857, indicating that the stock market price is higher than the book value. The *LOSS* variable has a low mean of 0.251 and, therefore, shows that, in general, companies obtain positive net income. The *CFO* variable has a very low mean (0.060). Finally, the *BIG4* variable is practically 1 (0.904) meaning that most companies are audited by a Big 4 audit firm (Deloitte, KPMG, PwC or EY). The mean of *TAA* is negative 0.034.

See Table 2

4.2. Correlations

Table 3 shows the correlation matrix. The variables of interest *PARTNER*, *OFFICE* and *FIRM_NAF* do not present a significant correlation with the dependent variable |*AQ_DA*|.

However, the variables *OFFICE_NAF* and *FIRM* present a significant relationship with the variable *AQ_|DA|* (at a 0.01 level). The variable *OFFICE_NAF* presents a negative relationship, meaning that the increase in non-audit fees at the audit office level increases audit quality. In contrast, the sign of the coefficient of the variable *FIRM* is positive, that is, the increase in client importance through the audit firm's total fees, decreases audit quality. Regarding the relationship between client importance and the audit quality measured through the modified opinion, the variables *PARTNER*, *OFFICE_NAF* and *FIRM_NAF* show a significant correlation (at a 0.05 level or better) with the variable *AQ_MO*, while the variables *OFFICE_NAF* and *FIRM_NAF* do not present a significant correlation with *AQ_MO*. Since the sign of the coefficient of the variables *PARTNER*, *OFFICE_NAF* and *FIRM_NAF* is negative, it means that an increase in client importance decreases the probability of issuing a modified opinion and therefore the audit quality.

The low values of the correlation coefficients among independent/control variables and the value inflated factors (VIF<10) indicate that collinearity problems are minimal (Hair et al., 2006).

See Table 3

4.3. Regression results

4.3.1. Client importance and audit quality

Table 4 presents the results of the relation between client importance and absolute value of discretionary accruals. Column 1 is the client importance measured by the audit partner fees, columns 2 and 3 are for audit office fees and columns 4 and 5 are for audit firm fees. This estimation separate is for isolating the effect of client importance on each type of fees (at partner, office and audit firm level) following Hossain et al. (2023). The coefficients of the variables *OFFICE* and *OFFICE_NAF* are negative and statistically

significant (at a level of 0.10 and 0.01, respectively), allowing us to conclude that client importance measured at the office level (total fees and non-audit fees) increases audit quality (as in the studies by Hossain et al. (2023), Gaver & Paterson (2007) and Reynolds & Francis (2001)). It can be said that the risk of loss of reputation and the risk of litigation dominate the possible economic dependence (Hunt & Lulseged, 2007). It can also be said that the independence of auditors is not only not compromised by non-audit services, but their profile is more conservative for clients whose non-audit services fees are higher.

The coefficient of the variable *FIRM* is also statistically significant (at a level of 0.01) but in this case it is positive, meaning that client importance measured by audit fees at the audit firm level reduces audit quality. These results confirm the economic dependence theory of Reynolds and Francis (2001) and the concern of stakeholders.

The other variables of interest, *PARTNER* and *FIRM_NAF* are not statistically significant at a level of at least 0.10, and it cannot be concluded that client importance measured at the audit partner level and by non-audit fees at the audit firm level influences audit quality.

Regarding the control variables, only variables *SIZE*, *LEV* and *ROA* are statistically significant (at a level of 0.05 or better). The coefficients of *SIZE* and *LEV* have the expected sign, i.e. the larger the company and the lower the debt, the better the audit quality. As for the coefficient of the *ROA* variable, it is positive (and contrary to expectations), meaning that the higher the return on assets, the lower the audit quality. The coefficients of the other control variables are not statistically significant (except for the *LOSS* variable in columns 3 and 4 and ROA in column 4) but have the expected sign (except the *PBV* variable).

See Table 4

Table 5 presents the results for the influence of client importance on audit quality using our second measure, the modified opinion. As for the first measure of audit quality, we present the results separately for client importance measured at the audit partner, audit office, and audit firm levels. Contrary to the use of discretionary accruals to measure audit quality, none of the variables of interest are now statistically significant at least at the 0.10 level. Therefore, as in the case of the findings of Chi et al. (2012), Chen & Sun (2010), Craswell et al. (2002), Hunt & Lulseged (2007) and Li (2009) nothing can be concluded about the impact of client importance on audit quality.

Regarding the control variables, the coefficient of the *LOSS* variable has the expected sign and is statistically significant. It can be said that the probability of issuing a modified opinion increases with losses. The coefficients of the *SIZE* and *BIG4* variables do not have the expected sign and are statistically significant (except variable *BIG4* for column 4, total fees at the audit firm). It can be said that the probability of issuing a modified opinion decreases with the size of the audited company and audited by a Big 4 firm. The coefficients of the other control variables are not statistically significant.

See Table 5

4.3.2. New audit report on the client importance and audit quality

Table 6 and 7 present the results of the impact of the new audit report on the influence of client importance on audit quality measured through discretionary accruals and modified opinion, respectively. The audit report was changed and, as already mentioned, some of these changes were the mandatory disclosure of the name and corresponding signature of the audit partner, the mandatory disclosure, in a specific paragraph, of material uncertainty about going concern, the mandatory disclosure of KAM, the prohibition of

providing a broad set of services other than auditing, among others (EU, 2014a).[2] As before, we present the results separately for client importance measured at the audit partner, office, and firm levels.

When audit quality is measured through discretionary accruals, the coefficient of the interaction between client importance and *POST* is positive and statistically significant (at least at 0.01) at the audit office level (*OFFICE* and *OFFICE_NAF*) and at the audit firm level when client importance is measured through non-audit fees (*FIRM_NAF*). We can conclude that, contrary to the expectations of regulatory bodies, changes in the audit report reduce audit quality at the audit office and audit firm level (in the case of non-audit fees). When client importance is measured through fees at the audit partner and audit firm level (in the case of total fees), no conclusion can be drawn since the coefficients are not statistically significant at least 0.10 level.

See Table 6

On the other hand, when audit quality is measured by the probability of issuing a qualified opinion, the coefficient of the interaction between client importance and *POST* is negative and only significant in the case of the audit firm (in the case of total fees). This means that audit quality decreases at the audit firm level and when it comes to total fees.

See Table 7

4.3.3. Additional analysis

IAASB and PCAOB say that the changes on the audit report may have a positive impact

[2] The sample is smaller because it does not include the year 2016, the year in which the new audit report was introduced.

on audit quality or users' perception of it (IAASB, 2013; PCAOB 2016) and the main change to the audit report was the inclusion of the KAM disclosure. Thus, we use the KAM number as a measure of audit quality as an additional test of the influence of client importance on audit quality and the results are shown on Table 8.[3] Assuming that audit quality increases with the number of KAMs, since the coefficients of the variables *PARTNER*, *OFFICE* and *FIRM* are statistically significant (at least 0.01) and positive, it can be concluded that audit quality increases with the importance of the client. We can say that audit partners, audit offices and audit firms are conservative to protect themselves, possibly from the reputational and litigation risks inherent to their activity. However, when it comes to the importance of the client measured by non-audit fees, nothing can be concluded, since the coefficients of the variables *OFFICE_NAF* and *FIRM_NAF* are not statistically significant. This conclusion makes sense, since KAMs are part of the audit work and not of non-audit services.

See Table 8

Summary and conclusions

The benefit of receiving fees from clients can be associated with the concept of economic dependence, since some clients may be very important to the audit partner, audit office and audit firm, as they may represent a large part of their revenues. However, litigation and reputational problems may occur (Reynolds & Francis, 2001). Thus, we study when the importance of the client in relation to the audit partner, audit office and the audit firm has a positive or negative impact on audit quality in Spain.

[3] The sample only includes years after 2016, which is when KAMs disclosure became mandatory.

The EU changed the applicable auditor's report from June 2016, and the main change was the KAM disclosure (EU, 2014a). Therefore, we also study whether changes in the audit report alter the influence of client importance on audit quality.

Hossain et al. (2023) find no association between client importance and audit quality at the audit office and audit firm level. However, they conclude that, at the audit partner level, client importance increases audit quality. Chen and Sun (2010), on the other hand, find a compromise in audit quality at the audit partner level in the period before 2001, unlike the results obtained for the period after 2001, in which there is evidence of conservatism on the part of auditors.

Client importance is measured using fees at the audit partner, audit office, and audit firm level, and in audit office and audit firm non-audit fees are analyzed separately (Chung & Kallapur, 2003; Craswell et al., 2002; Li, 2009; Reynolds & Francis, 2001; Gaver & Paterson, 2007).

Audit quality is measured using discretionary accruals (Ferguson et al., 2004; Chung & Kallapur, 2003; Gaver & Paterson, 2007; Chi et al., 2012) and through the probability of issuing a modified opinion (Craswell et al., 2002; Chen & Sun, 2010; Chi et al., 2012). As an additional test of audit quality, we use the number of KAMs.

The results allow us to conclude, at the audit office level, that the client importance increases the audit quality measured through discretionary accruals. However, at the audit firm level, the client importance decreases the audit quality, which is in line with the economic dependence theory of Reynolds and Francis (2001). When the audit quality is measured through the probability of issuing a qualified opinion, nothing can be concluded regarding the influence of client importance on audit quality.

When analyzing whether the influence of client importance on audit quality changes with the new audit report, we conclude that client importance, at the audit office

and audit firm level (in the case of non-audit fees) decreases audit quality after the introduction of the new report. No conclusions can be drawn in the case of fees at the audit partner and audit firm level (total fees). When audit quality is measured by issuing a modified opinion, it is only concluded that it decreases in the case of client importance measured at the audit firm level.

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Table 1. Sample

Panel A: Definition of the sample

	Companies	Observations	%
Initial sample	120	1560	100.0
Observations withdrawn:			
Financial firms	-8	-65	- 4.2
No data available	-50	-689	- 44.2
Final sample	62	806	51.7

Panel B: Sample by industry

	Companies	Observations	%
Construction (SIC 3)	11	143	17.7
Manufacturing (SIC 4)	30	390	48.4
Transportation, communications, electric, gas and sanitary services (SIC 5)	9	117	14.5
Wholsale trade and retail trade (SIC 6)	2	26	3.2
Services (SIC 8)	10	130	16.1
Final sample	62	806	100.0

Table 2. Descriptive statistics

Variables	(sample = 806)		
	Mean	Median	Std. Dev.
AQ_|DA|	0.054	0.032	0.070
AQ_MO	0.159	0.000	0.366
PARTNER	0.841	1.000	0.288
OFFICE	0.339	0.130	0.382
OFFICE_NAF	0.281	0.069	0.372
FIRM	0.108	0.025	0.214
FIRM_NAF	0.074	0.016	0.148
SIZE	6.067	6.017	0.945
LEV	0.666	0.646	0.285
ROA	0.013	0.027	0.104
PBV	1.857	1.373	1.769
LOSS	0.251	0.000	0.434
CFO	0.060	0.059	0.085
BIG4	0.904	1.000	0.294
TAA	-0.034	-0.029	0.090

Table 3. Correlation matrix

	AQ_|DA|	*AQ_MO*	*PARTNER*	*OFFICE*	*OFFICE_NAF*	*FIRM*	*FIRM_NAF*	*SIZE*	*LEV*	*ROA*	*PBV*	*LOSS*	*CFO*	*BIG4*	*TAA*
AQ_|DA|	1.000														
AQ_MO		1.000													
PARTNER	-0.029	-0.090**	1.000												
OFFICE	-0.040	0.011	…	1.000											
OFFICE_NAF	-0.115***	-0.104***	…	…	1.000										
FIRM	0.105***	0.027	…	…	…	1.000									
FIRM_NAF	-0.022	-0.109***	…	…	…		1.000								
SIZE	-0.270***	-0.284***	0.148***	0.049	0.164***	0.004	0.202***	1.000							
LEV	0.218***	0.263***	-0.053	0.011	-0.013	0.150***	0.072**	-0.051	1.000						
ROA	-0.022	-0.311***	0.045	0.043	0.045	-0.061*	-0.034	0.182***	-0.556***	1.000					
PBV	0.028	-0.214***	0.084**	0.024	0.031	0.021	0.038	0.102***	-0.193***	0.405***	1.000				
LOSS	0.140***	0.383***	-0.052	-0.060*	-0.028	-0.024	-0.009	-0.219***	0.348***	-0.751***	-0.377***	1.000			
CFO	-0.111***	-0.395***	0.036	0.023	0.051	-0.134***	-0.014	0.187***	-0.523***	0.666***	0.410***	-0.499***	1.000		
BIG4	-0.080**	-0.275***	-0.018	-0.242***	0.089**	-0.424***	-0.004	0.171***	-0.085**	0.068*	0.013	-0.124***	0.224***	1.000	
TAA	0.086**	-0.041	0.038	0.027	-0.005	0.056	-0.024	0.081**	-0.217***	0.369***	0.130***	-0.235***	0.119***	-0.045	1.000

All variables defined in Appendix. The correlations of qualitative variables are Spearman correlations (*AQ_MO*. *LOSS* and *BIG4*). ***. **. * indicate statistical significance from two-tailed tests at 0.01. 0.05. and 0.1. respectively.

Table 4. Regression of the client importance on absolute value of discretionary accruals

Variables (expected sign)	Partner	Office	Office (non-audit fees)	Firm	Firm (non-audit fees)
	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)
Intercept	0.076 (2.733)***	0.082 (3.153)***	0.071 (2.615)***	0.059 (2.316)**	0.081 (3.049)***
PARTNER (-)	0.005 (0.609)				
OFFICE (-)		-0.009 (-1.679)*			
OFFICE_NAF (-)			-0.017 (-3.091)***		
FIRM (-)				0.044 (2.664)***	
FIRM_NAF (-)					0.010 (0.443)
SIZE (-)	-0.019 (-5.862)***	-0.018 (-5.598)***	-0.017 (-5.163)***	-0.020 (-5.930)***	-0.019 (-5.409)***
LEV (+)	0.088 (4.081)***	0.088 (4.077)***	0.089 (4.133)***	0.086 (3.965)***	0.087 (4.050)***
ROA (-)	0.158 (2.205)**	0.159 (2.224)**	0.160 (2.251)**	0.154 (2.143)**	0.158 (2.211)**
PBV (-)	0.003 (1.187)	0.003 (1.169)	0.003 (1.240)	0.003 (1.305)	0.003 (1.182)
LOSS (+)	0.016 (1.646)	0.016 (1.597)	0.016 (1.664)*	0.017 (1.748)*	0.016 (1.633)
CFO (-)	-0.023 (-0.364)	-0.024 (-0.386)	-0.024 (-0.382)	-0.013 (-0.200)	-0.024 (-0.379)
BIG4 (-)	-0.004 (-0.408)	-0.008 (-0.893)	-0.004 (-0474)	0.019 (2.399)**	-0.003 (-0.288)
TAA (+)	0.093 (1.181)	0.095 (1.198)	0.093 (1.187)	0.089 (1.132)	0.095 (1.192)
Industry FEE	Included	Included	Included	Included	Included
Year FEE	Included	Included	Included	Included	Included
No. Obs.	806	806	806	806	806
Adjusted R^2	0.160	0.162	0.168	0.168	0.160
F Value	7.141***	7.219***	7.486***	7.494***	7.138***

All variables defined in Appendix. ***. **. * indicate statistical significance from two-tailed tests at 0.01. 0.05. and 0.1. respectively.

Table 5. Regression of the client importance on modified opinion

Variables (expected sign)	Partner	Office	Office (non-audit fees)	Firm	Firm (non-audit fees)
	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)
Intercept	1.501 (0.971)	1.016 (0.687)	1.253 0.823	0.296 (0.188)	1.247 (0.823)
PARTNER (+)	-0.318 (-0.835)				
OFFICE (+)		0.240 (0.750)			
OFFICE_NAF (+)			0.028 (0.085)		
FIRM (+)				1.114 (1.233)	
FIRM_NAF (+)					-0.045 (-0.059)
SIZE (+)	-0.900 (-4.841)***	-0.904 (-4.935)***	-0.913 (-4.770)***	-0.877 (-4.837)***	-0.909 (-4.822)***
LEV (+)	0.882 (1.537)	0.897 (1.574)	0.896 (1.572)	0.936 (1.594)	0.899 (1.575)
ROA (+)	-0.775 (-0.457)	-0.881 (-0.519)	-0.800 (-0.476)	-0.976 (-0.555)	-0.796 (-0.472)
PBV (-)	0.013 (0.152)	0.013 (0.152)	0.010 (0.125)	0.013 (0.163)	0.010 (0.126)
LOSS (+)	1.618 (4.535)***	1.624 (4.591)***	1.608 (4.564)***	1.638 (4.612)***	1.612 (4.569)***
CFO (+)	-1.021 (-0.411)	-0.973 (-0.386)	-1.044 (-0.416)	-0.535 (-0.203)	-1.037 (-0.414)
BIG4 (+)	-1.449 (-3.565)***	-1.343 (-3.160)***	-1.432 (-3.466)***	-0.847 (-1.387)	-1.441 (-3.159)***
TA (+)	2.164 (1.557)	2.159 (1.562)	2.167 (1.578)	2.010 (1.449)	2.164 (1.579)
Industry FEE	Included	Included	Included	Included	Included
Year FEE	Included	Included	Included	Included	Included
No. Obs.	806	806	806	806	806
Pseudo R^2	0.349	0.349	0.348	0.351	0.348
LR	246.273***	246.119***	245.662***	247.525***	245.658***

All variables defined in Appendix. ***. **. * indicate statistical significance from two-tailed tests at 0.01. 0.05. and 0.1. respectively.

Table 6. Regression of the new audit report on client importance and absolute value of discretionary accruals

	Partner	Office	Office (non-audit fees)	Firm	Firm (non-audit fees)
Variables (expected sign)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)
Intercept	0.099 (3.486)***	0.104 (4.372)***	0.097 (3.960)***	0.080 (3.485)***	0.101 (4.189)***
PARTNER (-)	0.003 (0.197)				
OFFICE (-)		-0.022 (-2.353)**			
OFFICE_NAF (-)			-0.025 (-3.180)***		
FIRM (-)				0.014 (0.461)	
FIRM_NAF (-)					-0.034 (-1.927)*
POST (-)	-0.023 (-1.536)	-0.022 (-3.382)***	-0.018 (-2.798)***	-0.016 (-3.086)***	-0.015 (-2.880)***
*FEES*POST* (-)	0.012 (0.762)	0.027 (2.409)**	0.0174 (1.705)*	0.039 (1.245)	0.043 (1.742)*
SIZE (-)	-0.017 (-5.403)***	-0.016 (-5.138)***	-0.015 (-4.753)***	-0.017 (-5.335)***	-0.016 (-4.882)***
LEV (+)	0.076 (3.609)***	0.077 (3.686)***	0.077 (3.698)***	0.075 (3.549)***	0.075 (3.596)***
ROA (-)	0.199 (2.790)***	0.202 (2.839)***	0.202 (2.849)***	0.192 (2.695)***	0.196 (2.750)***
PBV (-)	0.003 (1.345)	0.003 (1.368)	0.003 (1.403)	0.003 (1.504)	0.002 (1.283)
LOSS (+)	0.016 (1.927)*	0.016 (1.857)*	0.016 (1.914)*	0.017 (2.019)**	0.016 (1.860)*
CFO (-)	-0.069 (-1.247)	-0.069 (-1.266)	-0.073 (-1.331)	-0.058 (-1.042)	-0.073 (-1.333)
BIG4 (-)	-0.004 (-0.443)	-0.008 (-0.955)	-0.005 (-0.582)	0.014 (1.774)*	-0.007 (-0.738)
TAA (+)	-0.019 (-0.276)	-0.019 (-0.264)	-0.018 (-0.253)	-0.024 (-0.347)	-0.018 (-0.258)
Industry FEE	Included	Included	Included	Included	Included
Year FEE	Not included	Not included	Not included	Not included	Not included
No. Obs.	744	744	744	744	744
Adjusted R^2	0.1505	0.1565	0.160	0.160	0.152
F Value	9.774***	10.187***	10.442***	10.462***	9.859***

All variables defined in Appendix. ***. **. * indicate statistical significance from two-tailed tests at 0.01. 0.05. and 0.1. respectively.

Table 7. Regression of the new audit report on client importance and modified opinion

Variables (expected sign)	Partner	Office	Office (non-audit fees)	Firm	Firm (non-audit fees)
	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)
Intercept	3.741 (2.794)***	3.378 (2.664)***	3.804 (2.947)***	3.073 (2.057)**	3.704 (2.915)***
PARTNER (+)	0.016 (0.038)				
OFFICE (+)		0.586 (1.526)			
OFFICE_NAF (+)			-0.104 (-0.253)		
FIRM (+)				3.355 (3.063)***	
FIRM_NAF (+)					-0.141 (-0.163)
POST (+)	-0.388 (-0.565)	-1.116 (-2.777***	-1.416 (-3.843)***	-0.863 (-2.694)***	-1.247 (-3.866)***
*FEES*POST* (+)	-1.029 (-1.238)	-0.324 (-0.443)	0.662 (0.904)	-2.969 (-2.208)**	0.203 (0.125)
SIZE (+)	-0.893 (-4.653)***	-0.904 (-4.643)***	-0.909 (-4.599)***	-0.973 (-4.849)***	-0.896 (-4.558)***
LEV (+)	1.019 (1.837)*	0.985 (1.749)*	1.005 (1.838)*	0.990 (1.736)*	1.019 (1.835)*
ROA (+)	-0.993 (-0.618)	-1.132 (-0.709)	-0.896 (-0.570)	-1.370 (-0.822)	-0.912 (-0.574)
PBV (+)	-0.031 (-0.359)	-0.032 -0.378)	-0.043 (-0.503)	-0.026 (-0.294)	-0.039 (-0.456)
LOSS (+)	1.548 (4.364)***	1.588 (4.533)***	1.539 (4.388)***	1.605 (4.497)***	1.560 (4.446)***
CFO (+)	0.834 (0.448)	1.051 (0.577)	0.916 (0.503)	1.352 (0.694)	0.972 (0.533)
BIG4 (+)	-1.432 (-3.737)***	-1.185 (-3.042)***	-1.342 (-3.530)***	-0.536 (-0.915)	-1.359 (-3.183)***
TAA (+)	1.763 (1.282)	1.691 (1.235)	1.785 (1.331)	1.992 (1.412)	1.689 (1.264)
Industry FEE	Included	Included	Included	Included	Included
Year FEE	Not included	Not included	Not included	Not included	Not included
No. Obs.	744	744	744	744	744
Pseudo R^2	0.322	0.322	0.320	0.332	0.319
LR	206.065***	206.012***	205.188***	21.486***	204.116***

All variables defined in Appendix. ***. **. * indicate statistical significance from two-tailed tests at 0.01. 0.05. and 0.1. respectively.

Table 8. Regression of the client importance on KAM

Variables (expected sign)	Partner	Office	Office (non-audit fees)	Firm	Firm (non-audit fees)
	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)	Coefficient (*t*-stats)
Intercept	0.385 (0.778)	0.505 (1.064)	0.639 (1.314)	0.174 (0.373)	0.594 (1.259)
PARTNER (+)	0.286 (1.930)*				
OFFICE (+)		0.223 (1.852)*			
OFFICE_NAF (+)			0.053 (0.395)		
FIRM (+)				0.764 (2.672)***	
FIRM_NAF (+)					-0.358 (-0.967)
SIZE (+)	-0.469 (-2.475)**	-0.462 (-2.425)**	-0.453 (-2.393)**	-0.522 (-2.597)***	-0.471 (-2.456)**
LEV (+)	0.391 (5.993)***	0.394 (6.047)***	0.400 (5.880)***	0.394 (6.099)***	0.420 (6.157)***
ROA (-)	0.211 (0.963)	0.188 (0.883)	0.169 (0.778)	0.183 (0.827)	0.182 (0.838)
PBV (-)	1.652 (1.796)*	1.610 (1.723)*	1.580 (1.693)*	1.512 (1.630)	1.578 (1.716)*
LOSS (+)	-0.008 (-0.248)	-0.003 (-0.089)	-0.005 (-0.159)	0.003 (0.099)	-0.000 (-0.008)
CFO (-)	-0.010 (-0.072)	-0.009 (-0.062)	-0.028 (-0.191)	0.016 (0.111)	-0.010 (-0.072)
BIG4 (-)	-4.167 (-4.440)***	-4.227 (-4.550)***	-4.301 (-4.591)***	-4.111 (-4.489)***	-4.283 (-4.581)***
TAA (+)	-0.341 (-2.203)**	-0.297 (-1.943)*	-0.373 (-2.397)**	0.014 (0.070)	-0.418 (-2.554)**
Industry FEE	-0.737 (-0.944)	-0.770 (-0.903)	-0.672 (-0.853)	-0.859 (-1.105)	-0.775 (-0.995)
Year FEE	Included	Included	Included	Included	Included
No. Obs.	372	372	372	372	372
Adjusted R^2	0.223	0.224	0.217	0.234	0.219
F Value	8.599***	8.643***	8.348***	9.034***	8.419***

All variables defined in Appendix. ***. **. * indicate statistical significance from two-tailed tests at 0.01. 0.05. and 0.1. respectively.

Appendix. Variable definitions

Dependent variables	
AQ-|DA|	The absolute value of discretionary accruals.
AQ-MO	Variable that takes 1 if an auditor issues a modified opinion, and 0 otherwise.
KAM	Number of KAM disclosed in firm's annual report.
Interest variables	
PARTNER	Audit fees received by an audit partner from a client in relation to the total audit fees received by that audit partner from all clients.
OFFICE	Total fees received by an office firm from a client in relation to the total fees received by that audit office from all clients.
OFFICE_NAF	Non-audit fees received by an audit office from a client in relation to the total non-audit fees received by that audit office from all clients.
FIRM	Total fees received by an audit firm from a client in relation to the total fees received by that audit firm from all clients.
FIRM_NAF	Non-audit fees received by an audit firm from a client in relation to the total non-audit fees received by that firm from all clients.
Control variables	
A	Total assets for firm *i* in year *t-1*
BIG4	Variable that equals 1 if it is a Big 4 audit firm, and 0 otherwise.
CA	Current assets.
CASH	Cash.
CFO	Cash flow from operations divided by total assets.
CL	Current liabilities.
DEP	Depreciations.
LEV	Leverage is the ratio of liabilities on total assets.
LOANS	Current debt.
LOSS	Dummy variable that takes 1 if net income is positive and 0 otherwise.
PPE	Gross amount of plant, property and equipment.
PTB	Price-to-book ratio calculated by the quotient of market value on equity.
REV	Revenues.
ROA	Return on assets is the ratio of net income on total assets.
SIZE	Natural logarithm of total assets.
TA	Total accruals calculated using balance sheet accrual estimates.
TAA	Total accruals divided by total assets.