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CORPORATE
GOVERNANCE IN
SOUTH-EASTERN ASIA



AGENCY CONFLICTS AND CHOICE OF SPECIALIST AUDIT
FIRMS AND AUDIT PARTNERS: SIGNALING OR SUBSTANTIAL
MONITORING?

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Abstract

This study contributes to the literature on company audits by examine the demand-side effects of the selection of industry-specialist audit firms and auditors; it does this by considering the impact of the agency problem that exists between controlling owners and minority shareholders. It is shown that the potential magnitude of the agency costs associated with interest entrenchment increases the demand for auditors whose audit quality is perceived to be higher with regard to the signaling role of audits, but decreases the probability of engaging individual specialist auditors who actually carry out higher quality audits with regard to substantial monitoring.

Keywords: Agency Problem, Industry Specialist Auditor, Audit Firm and Audit Partner

JEL Classification: M14; M42

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1 Introduction

The agency problem has existed between the management of a company and its stakeholders ever since the emergence of the concept of a “company”. Due to information asymmetry, company managers receive first-hand information about the company, and it is they who decide what kinds of information, and how much of it, are released to stakeholders. Information asymmetry implies that stakeholders play a passive role in the flow of information.

Independent auditing is generally considered to be among the most important external governance mechanisms; in a sense, the auditor is the “gatekeeper” between a company and its stakeholders. With their specialist knowledge of an industry, auditors can certify whether or not financial accounts and disclosures are presented fairly, and for the management of any company, the choice of auditor has therefore always been an important matter. Previous authors also devote much attention to the selection of auditors (e.g., Francis and Wilson 1988;

Abbott and Parker 2000; Lennox 2000; Carcello and Neal 2003; Dunn and Mayhew 2004; Fan and Wong 2005; Hodgdon, Tondkar, Adhikari, and Harless 2009). A number of authors also demonstrate the advantages of selecting specialist auditors (e.g., Balsam, Krishnan, and Yang 2003; Dunn and Mayhew 2004; Carcello and Nagy 2004; Payne 2008; Lim and Tan 2008; Chin and Chi 2009), but to date few studies have explored the issue of auditor specialization from a perspective that explores the relationship between auditor choice and the agency problem as experienced by companies. This problem may be summarized thus: industry specialist auditors have an effect on the quality of a company's financial information, and the auditor is always selected by the company's management.

It is clear from the literature on this topic that agency conflict is a very common characteristic of the discourse on the selection of company auditors¹(e.g., Francis and Wilson 1988; Kwon 1996; Beasley and Petroni 2001; Abbott and Parker 2000; Lennox 2000; Carcello and Neal 2003; Dunn and Mayhew 2004; Fan and Wong 2005; Louis 2005; Hodgdon, Tondkar, Adhikari, and Harless 2009). As far as the signaling function is concerned, the selection of more reputable specialist auditors capable of providing higher-quality audits may add to the credibility of a company's financial statements, thereby reducing the cost of capital of that company. From this point of view, those companies that experience significant agency conflict may be more likely to engage specialist auditors in order to reduce agency costs. However, as far as a firm's reporting strategy is concerned, in the presence of agency conflict managers may also be disinclined to engage high-quality, specialist auditors who may be expected to be better placed to detect fraud or errors in financial reporting. Both DeFond (1992)²⁰ and DeFond and Subramanyam (1998)²¹ suggest that companies' auditor choices are affected by their

disclosure intentions. In this sense, a company's agency conflicts may also negatively affect its intention to engage specialist auditors. Dunn and Mayhew (2004) suggest that companies may not use industry-specialist auditors because they want to avoid excessive disclosure requirements. Agency conflict may therefore either increase the tendency of managers to engage high quality auditors in order to achieve a more favorable market position, or it may reduce the tendency to engage high quality auditors in order to reduce the likelihood of revealing financial fraud or mistakes. Although some authors have previously discussed the association between agency conflict and the demand for high quality audit, to date few authors have explored the relationship between the use of industry-specialist auditors and the real intentions of managers⁴, because the conflicting effects of the agency problem in the decision to engage high-quality auditors are difficult to distinguish.

The aim of the present study is to explore the influence of company agency conflict on the choice of specialist audit firms and auditors. We herein explore whether or not the choice of auditor reflects the real intentions of a company's management; in other words, while the agency problem exists, does a company's management engage with industry-specialist auditors or with other, non-specialist auditors? We also investigate the real intent of this choice of behavior by examining data relating to the engagement of specialist audit firms and auditors by companies to identify the real intentions of company managements in the unique setting of Taiwan.

Taiwanese regulations require audit partners' names to be disclosed in audit reports, which affords us the opportunity to examine the choice of specialist auditor at both firm and partner level. In Taiwan, audit partners accept business and assume liabilities separately, so the specialist knowledge and expertise is generally held by audit partners rather than audit firms *per se*. While most previous studies suggest that specialized audit firms appear to undertake generally higher quality audits, in reality not all audit partners that serve in specialist firms are specialists. Chin and Chi (2009) suggest that specialist audit partners have the most critical and direct effect on audit quality and demonstrate that in Taiwan, the likelihood of a differential restatement due to industry expertise is mainly attributable to specialist auditors rather than to specialist audit firms. We therefore propose that specialist audit partners practise with a higher "actual" audit quality, while specialist audit firms may have a higher "apparent" audit quality, and this implies that a client who chooses specialist audit partners is

¹ The following factors have also been suggested to be important in choosing or changing auditor: earnings management (e.g., DeFond and Subramanyam 1998; Francis, Maydew, and Sparks 1999; Carcello and Neal 2003; Kim, Chung, and Firth 2003), opinion shopping (e.g., Chow and Rice 1982; Teoh 1992; Krishnan 1994; Krishnan and Stephens 1995; Lennox 2000; Carcello and Neal 2003), advising (Carpenter and Strawser 1971; Louis 2005), and industry competition (Kwon 1996).

²⁰ By examining changes in auditor between 1979 and early 1983, DeFond (1992) find that short-term accruals are significantly negatively correlated with the selection of high-quality auditors.

²¹ DeFond and Subramanyam (1998) examine US companies that changed their auditors between 1990 and 1993 and find that discretionary accruals are income-decreasing during an auditor's final year and generally insignificant during the next auditor's first year. The authors therefore suggest that companies with more earnings management intentions are more likely to change their auditors.

⁴ Fan and Wong (2005) use empirical evidence from emerging markets to determine whether external independent auditors are employed as monitors, as bonding mechanisms, or both, to alleviate agency problems.

interested in “actual” audit quality while those who choose specialist audit firms are seeking an “apparent” audit quality. Furthermore, we expect the agency conflicts that arise from company ownership structures to affect the decision of a company on the engagement of specialist audit firms and auditors.

We use management control factors (e.g., management holdings and CEO duality), family control factors (e.g., the number of family board members, or ultimately family-controlled shareholders), and board structures (e.g., board size and control rights) to examine the association between companies’ agency conflict and their choice of industry specialist audit firms and auditors. We expect agency conflicts to increase companies’ demands for specialist audit firms that have “apparent” audit quality and to decrease their motivation to engage specialist auditors who have “actual” audit quality. The results of the present study support our hypothesis that agency conflicts increase companies’ demands for specialist audit firms but decrease their demand for specialist audit partners. In other words, the potential magnitude of the agency costs associated with interest entrenchment increases the demand for auditors with higher “apparent” audit quality as far as the signaling role of audits is concerned, but decreases the likelihood of engaging specialist audit partners with a higher “actual” audit quality as far as substantial monitoring is concerned. However, we find no results in support of agency conflict that arises from family control rights.

The present study contributes to the literature on industry-specialist auditing by creating a setting in which to examine company demand-side effects of the choice between industry-specialist audit firms and specialist audit partners, by considering the impact of the company agency conflict between controlling owners and minority shareholders. Most previous studies have focused on the supply-side (i.e., stakeholder) aspects in order to discuss the specialization strategies of audit firms (e.g., Porters 1985; Craswell, Francis, and Taylor 1995; Hogan and Jeter 1999; Defond, Francis, and Wang 2000; Ferguson and Stokes 2002; Mayhew and Wilkins 2003; Ferguson, Francis, and Stokes 2003; Cenker and Nagy 2008; Basioudis and Francis 2007; Carson 2009). The present study additionally contributes to the literature on auditor choice by examining the influence of clients’ reporting strategies on their demand for high-quality audits in terms of the selection of specialist auditors; most previous studies of this topic are concerned with the use of Big N (or Non-Big N) auditors to measure this influence. Furthermore, by examining the use of specialist auditors at both the audit firm and partner levels, the present study distinguishes between “actual” and “apparent” audit quality in the discussion on companies’ demand for audits. While the selection of auditors at the individual partner or firm level is widespread in many countries, it is however not

generally possible to identify whether the selection is influenced by individual auditors or audit firms, apart from in the case of Taiwan where such data are more readily available. The findings of the present study should therefore provide guidance to stakeholders and government officials in other countries on the question of whether or not the disclosure of individual auditor names aids decision making in their own countries.

The remainder of this paper is organized as follows. In the following section, we present the institutional background, review the relevant literature, and discuss our main hypotheses. The research design, the sample selection process, and the sources of data are all described in the third section. We present the empirical results in the fourth section and discuss our findings in the final section.

2 Background, literature and hypotheses

2.1 Institutional background

In the United States (US), audit reports are signed only using the names of audit firms, not of individual auditors, and audit firms take the responsibility for the result of their audits. In Taiwan, however, both the audit firms and the audit partners must sign audit reports, but the responsibility for the audit results is primarily assumed by individual auditors. Article 15 of the Certified Public Accountant (CPA) Act was revised in 2007 and this classified CPA firms into four types, namely: (1) Single-person CPA firm; (2) Co-located CPA firm; (3) Joint CPA firm; (4) Incorporated CPA firm. Most accounting firms in Taiwan are registered as Joint CPA firms; in essence, however, they are co-located CPA firms, which means that they are run jointly by co-located practitioners who accept business and assume liabilities separately and not as a partnership. Therefore, industry specialist knowledge and expertise are not always held at the audit firm (as they are in the US); rather, it is individual auditors who have these attributes.

While most prior studies discuss the demand for high-quality audits based on the size of the audit firm (e.g., Carpenter and Strawser 1971; Francis and Wilson 1988; Dye 1991; Defond 1992; Pittman and Fortin 2004; Dunn and Mayhew 2004; Fang and Wang 2005; Hope et al. 2008), few authors address the question of why specialist auditors are engaged⁵. This avenue of study is based mainly on agency theory, and assumes the same function for audit firms and auditors given that the roles of audit firms and auditors are difficult to distinguish in the US case. Nevertheless, an audit firm may play a different role from an auditor. Although specialist audit firms may indeed signal high quality, the “actual” audit quality is

⁵ To our knowledge, the only study to discuss the demand for specialist auditors is that of Godfrey and Hamilton (2005), who examine the impact of R&D intensity on the selection of specialist auditors.

determined by individual auditors, especially in Taiwan where industry expertise is mainly attributable to specialist auditors rather than to specialist audit firms. It is of course possible that managers attempt to elicit a better market reaction while actually avoiding a higher-quality audit, by using the distinct differences in function between audit firms and auditors. To our knowledge, little or no empirical evidence is available to document the audit demand issue from this perspective.

The regulations in Taiwan that require audit partners' names to be disclosed in audit reports provide us with the opportunity to examine the effects of using specialist auditors. Through this unique setting, we are able to discuss companies' demand for audit specialists at both the audit firm and auditor level, and examine further the differences between the functions of audit firms and auditors.

2.2 Literature and hypothesis development

Claessens et al. (1999b) point out that, when the holding rates and behavior of specific shareholders allow them to control a company, the nature of the agency problem changes from being characterized by conflicts between owners and managers (the equity agency problem) to being characterized by conflicts between controlling and minority shareholders (the "central agency problem"). Furthermore, Fan and Wong (2005) indicate that in emerging markets the agency conflicts between controlling owners and minority shareholders are difficult to mitigate through conventional corporate control mechanisms; they suggest that external independent auditors are employed as both monitors and bonding mechanisms. They further find that high-quality auditors can reduce the share price discounts associated with agency conflicts, and provide stricter monitoring by issuing unfavorable opinions.

Because the wider literature suggests that auditor industry specialization is associated with improved rates of error detection and a greater quality of financial statements (e.g., Krishnan 2003; Balsam et al. 2003; Romanus et al. 2008; Chin and Chi 2009), companies are more likely to engage specialist auditors in order to reduce agency conflicts. However, while higher-quality auditors may be more capable of detecting fraud or errors in financial reporting, from the perspective of reporting strategy managers may be disinclined to engage such auditors due to agency conflicts.

2.3 Agency conflicts and the demand for specialist audit firms

When a company has a concentrated ownership, a controlling owner may introduce bonding mechanisms, through the use of high-quality auditors for example, in order to mitigate against agency

conflict (Jensen and Meckling, 1976). Most of the literature discusses the demand for high-quality audits based primarily on the size of audit firm, and high-quality audits are usually assumed to be provided by large audit firms (e.g., Carpenter and Strawser 1971; Francis and Wilson 1988; Datar, Feltham, and Hughes 1991; DeFond 1992; Dunn and Mayhew 2004; Fang and Wong 2005; Knechel, Niemi, and Sundgren 2008; Hope, Kang, Thomas, and Yoo 2008). These studies suggest that those companies that experience significant agency conflict are more likely to engage high-quality auditors in order to signal the credibility of their financial statements and reduce the agency problem⁶.

Furthermore, studies of industry specialization among large audit firms reveal that specialist auditors provide even greater audit quality and gain even more positive market reactions than non-specialist ones (e.g., Balsam et al. 2003; Krishnan 2003; Dunn and Mayhew 2004; Wang and Wilkins 2007; Knechel, Naiker and Pacheco 2007). For instance, Dunn and Mayhew (2004) examine the association between an audit firm's degree of industry specialization and the quality of client disclosures in regulated and unregulated industries, and find a positive association between an industry-specialist audit and AIMR scores. Knechel et al. (2007) find that firms experience significantly positive abnormal returns when successor auditors are industry specialists.

Because of the signaling function of an audit, the selection of an industry-specialist auditor who has a reputation for supplying a higher-quality audit enhances the credibility of financial statements, and should enable companies with significant agency conflicts to reduce their cost of capital. Godfrey and Hamilton (2005) suggest that the probability and potential magnitude of the agency costs associated with accounting distortion increase the price protection for claimholders, and consequently increase the incentives for managers to reduce the level of price protection by adopting credible governance methods, such as hiring specialist or top-tier auditors. In addition, previous studies of auditor specialization suggest that clients of specialist auditors gain better market reactions than other clients (e.g., Balsam, Krishnan, and Yang 2003; Dunn and Mayhew 2004; Wang and Wilkins 2007; Lim and Tan 2008). Companies that experience significant agency conflicts should therefore be more likely to engage auditors with better reputations in order to diminish their agency problems.

⁶ For instance, Carpenter and Strawser (1971) indicate that most companies change to a "nationally known" auditor when they go public. In addition, both Francis and Wilson (1988) and DeFond (1992) demonstrate the impacts of companies' agency costs on their demand for high-quality audits. Fang and Wong (2005) indicate significantly positive associations between ownership structure and the choice of one of the Big 5 auditing firms.

Hence, with respect to signaling, this study predicts that the more agency conflicts a company has, the more likely it is to engage specialist audit firms. We therefore propose the following hypothesis:

H1: the more agency conflicts a company has, the more likely it is to engage specialist audit firms.

Agency conflicts and the demand for specialist audit partners

Seen from the perspective of the Conflict of Interest Hypothesis, however, controlling owners may be unwilling to engage high-quality auditors because such auditors may be expected to provide stricter monitoring. Blurred disclosures provide room for controlling owners to gain private benefits. Dunn and Mayhew (2004) suggest that companies may not seek industry-specialists to perform an audit because they wish to avoid any kind of enhanced disclosure.

According to Fan and Wong (2005), high-quality auditors can reduce the share price discounts associated with agency conflicts while nevertheless providing strict monitoring. With respect to expectation management, Reichelt and Wang (2010) suggest that industry specialist auditors may restrain the earnings management and expectation management activities of their clients. Carcello and Nagy (2004) also find industry specialist auditors to be less likely to be involved in Securities and Exchange Commission (SEC) enforcement actions. In addition, Chin and Chi (2009) suggest that audit quality is mainly attributable to specialist auditors' own industry expertise, rather than to that of their

firm. Therefore, companies that experience significant agency conflicts between controlling and minor shareholders should be less likely to engage specialist auditors who provide stricter monitoring.

With respect to the foregoing, we therefore propose the following hypothesis:

H2: the more central agency conflicts a company has, the less likely it is to engage specialist auditors.

3 Sample and research design

3.1 Sample Selection

In our major analysis the sample consists of companies listed on the Taiwanese stock market from 2001 to 2008. All the required data were gathered from the *Taiwan Economic Journal Database (TEJ)* and the *Taiwan Market Observation Post System*. The sample selection criteria are summarized in Panel A of Table 1. The original sample contained 10,033 observations, but the exclusion of financial services and insurance companies reduced the number to 9,711. We then deleted 202 and 1,695 observations for insufficient auditor and financial data respectively, resulting in a final sample of 6,712 firm-years. Panels B, C, and D of Table 1 present the distribution of specialist and non-specialist audit firms and auditors across the sample period. There are significantly fewer specialist auditors than specialist audit firms for all sample years.

Table 1. Sample Selection and Distribution of Observations

Panel A: Sample selection									
	Number of observations								
Original sample firm-years from 2001 through 2008	10033								
Less: Financial services and insurance Firms	322								
Less: Missing of auditor data	203								
Less: Missing of financial data	1695								
Final Sample in our study	7813								
Panel B: Sample distribution across sample sub-periods based on clients' sales – audit firm level									
Year	2001	2002	2003	2004	2005	2006	2007	2008	Total
Specialist firms	469	590	788	812	828	860	855	783	5985
Non-Specialist firms	159	301	202	201	211	215	241	298	1828
Total	628	891	990	1013	1039	1075	1096	1081	7813
Panel C: Sample distribution across sample sub-periods based on clients' sales - auditor level									
Year	2001	2002	2003	2004	2005	2006	2007	2008	Total
Specialist auditors	33	40	42	25	31	28	40	29	268
Non-Specialist auditors	595	851	948	988	1008	1047	1056	1052	7545
Total	628	891	990	1013	1039	1075	1096	1081	7813
Panel D: Sample distribution across sample sub-periods based on clients' sales – both level									
Year	2001	2002	2003	2004	2005	2006	2007	2008	Total
Specialist	33	39	41	24	31	28	35	26	257
Non-Specialist	595	852	949	989	1008	1047	1061	1055	7556
Total	628	891	990	1013	1039	1075	1096	1081	7813

3.2 Research design

Following previous studies (e.g., Balsam et al. 2003; Carcello and Nagy 2004; Krishnan 2003; Francis, LaFond, Olsson, and Schipper 2005; Cenker and Nagy 2008; Chin and Chi 2009), we used the industry market shares of the audit firm and the auditor as measures of industry specialization; we classified auditors as industry specialists if they had the largest market share within a specific industry, and we deemed audit firms to be industry specialists if they had a within-industry market share of at least 10 percent. We computed the auditor's industry share based on the client sales within each industry sector code, using all companies available in the TEJ

database for the period 2001-2008. After we had identified each industry specialist, we examined the relationship between it and the agency problem.

3.3 Measurement of specialist auditor

Because the audit reports of public companies in Taiwan must disclose the names of audit partners and audit firms, it is possible to measure the specialization of specific audit firms and auditors. We used clients' sales-based market shares of auditors and audit firms for this purpose.

For clients' sales, we measured the specialization of an auditor in a specific industry-year as:

$$SPECIALIZATION_{ik} = \frac{\sum_{j=1}^{J_k} SALE_{ijk}}{\sum_{j=1}^{J_k} \sum_{i=1}^{I_k} SALE_{ijk}} \quad \dots (1)$$

Where SALE is the clients' sales revenue, and the numerator is the sum of the sales of all the clients of auditor i in industry k. The denominator in Equation (1) is the total sales of industry k.

We then deemed those auditors with market shares greater than 10 percent to be industry specialist auditors, and constructed a dummy variable *SPE_IND* that equalled 1 if the auditor of a corporation was an industry specialist, and zero otherwise.

Public companies in Taiwan must be audited by two auditors, both of whom must sign the audit report. This requirement for two signatures raises an issue of measurement that concerns the identification of specialist auditors. Thanks to knowledge spillover, whichever partner is the specialist can share his or her knowledge with a whole audit team; consequently,

provided that either the leading or concurring auditor is a specialist in the given industry, the company was classed in a group audited by a specialist.

3.4 Measures of audit-firm specialists

We used similar procedures to measure the specialization of an audit firm in a specific industry-year. Equation (1) calculates the specialization of an audit firm and identifies audit firms with market shares of more than 10 percent as specialists. We then constructed a dummy variable *SPE_FIRM* that equalled 1 if the audit firm of a company was an industry specialist, and zero otherwise.

3.5 Logistic Regression Model

$$Y_{i,j,t} = \beta_1 + \beta_2 MH_{i,j,t} + \beta_3 FB_{i,j,t} + \beta_4 FC_{i,j,t} + \beta_5 DUAL_{i,j,t} + \beta_6 BD_{i,j,t} + \beta_7 IH_{i,j,t} + \beta_8 RD_{i,j,t} + \beta_9 LEV_{i,j,t} + \beta_{10} SIZE_{i,j,t} + \beta_{11} ROA_{i,j,t} + \beta_{12} GROW_{i,j,t} + \beta_{13} ABSDA_{i,j,t} + \varepsilon \quad (2)$$

where

- Y* = *SPE_IND* an indicator variable of specialization that equals 1 if company i in industry j for year t is audited by an specialist auditor, and zero otherwise;
- Y* = *SPE_FIRM* an indicator variable of specialization that equals 1 if company i in industry j for year t is audited by an specialist firm, and zero otherwise;
- MH* management ownership, measured by the percentage of managerial holdings for company i in industry j for year t;
- FB* the percentage of family-held seats on the board of company i in industry j for year t;
- FC* ultimately family-controlled ownership, measured by the percentage of ultimately family-controlled shareholder holdings for company i in industry j for year t;
- DUAL* an indicator variable of CEO duality that equals 1 if a firm's CEO also serves as chairman of the board of directors, and zero otherwise;
- BD* board size, measured by the number of members of a board for company i in industry j for year t;
- IH* institutional holdings, measured as the percentage of institutional ownership for company i in industry j for year t;

- RD* R&D intensity, measured as R&D expense divided by total assets for company *i* in industry *j* for year *t*;
- LEV* leverage, measured as the amount of long-term debt divided by total assets for company *i* in industry *j* for year *t*;
- SIZE* company size, measured as the natural log of total assets for company *i* in industry *j* for year *t*;
- ROA* the percentage of ROA for company *i* in industry *j* for year *t*;
- GROW* growth opportunity, measured as the natural log of sales revenue for company *i* in industry *j* for year *t*;
- ABSDA* discretionary intensity, measured as the absolute value of discretionary accruals based on a modified Jones model.

The main variables discussed in this study are *MH* (management ownership), *FB* (the percentage of family-held seats on the board), *FC* (ultimately family-controlled ownership), and *DUAL* (CEO duality). According to Claessens et al. (1999b), when the holding rates and other tactics of specific shareholders allow them to control a company, the nature of the agency problem will alter from being characterized by conflicts between owners and managers to being characterized by conflicts between controlling and minority shareholders. Furthermore, Fang and Wong (2005) suggest that agency conflicts between controlling and minority shareholders increase the likelihood that a company will engage an auditor with a reputation for high-quality audits. Therefore, at the audit firm level we expect *MH*, *FB*, *FC*, and *DUAL* to be positively associated with the choice of specialist audit firm. With respect to the Conflict of Interest Hypothesis, however, controlling owners may be unwilling to engage high-quality auditors because they may prefer to reduce the amount of monitoring. Hence, at the auditor level, we expect *MH*, *FB*, *FC*, and *DUAL* to be negatively associated with the choice of specialist auditor.

Following previous studies, we also include variables that have been demonstrated to have effects on companies' choices of auditors. Firstly, we include institutional holdings (*IH*) to control for the impacts of company corporate governance mechanisms. *R&D* expenses (*R&D*) and discretionary intensity (*ABSDA*) are also included, to control for the endogenously generated opportunities for earnings management. Previous authors suggest that companies' operating cycles affect their short-term accruals in working capital accounts, and their capital intensities affect long-term accruals such as depreciation and amortization (Francis et al. 1999; Godfrey and Hamilton 2005). The amount of discretionary accruals and R&D expenses represent the probability and potential magnitude of the agency costs associated with accounting distortion. Godfrey and Hamilton (2005) demonstrate that *R&D* intensity is positively associated with the selection of specialist auditors. *SIZE* is included to control for the fact that large companies are more likely than small ones to engage high-quality auditors. Furthermore, based on previous studies (e.g., Carpenter and Strawser 1971; Francis and Wilson 1988; Willenborg 1999), we include

GROW to control for the additional reputational demand for high-quality audits when companies have higher growth opportunities. Leverage (*LEV*) is included to control for the probability that high-debt firms are required by their lenders to engage high-quality auditors for monitoring purposes.

4 Empirical results

4.1 Descriptive Statistics

Table 2 presents the descriptive statistics of the main variables used to test the influence of agency conflicts on the choice of industry specialist audit firms and auditors. Table 2 shows that about 70% of the sample companies are audited by specialist audit firms, while only about 3% are audited by specialist auditors. The mean (median) of *MH* is 2.1% (0.9%), implying that on average, the managers of the sample companies control at least 2.1% (0.9%) of the voting rights. The mean of *DUAL* also shows that on average about one third of the sample companies' CEOs also serve as board chairmen. As far as the controlling rights of family members are concerned, the means (medians) of *FB* and *FC* are 58.3% (57.1%) and 12.4% (9.1%) for the sample companies, respectively. This implies that on average, family members possess more than half the seats of the boards of directors and about 10% of the voting rights. This finding is in accordance with previous studies suggesting that ownership concentration and familial control are the principal characteristics of emerging markets. The mean (median) of *BD* is 9.347 (9.000), similar to the distribution of Chiang and He (2010)²².

²² Chiang and He (2010) use a sample of listed companies in Taiwan to examine the associations between structure of boards of directors and company transparency.

Table 2. Summary of Descriptive Statistics (N=7813)

	Mean	Min.	Max.	Q1	Median	Q3	Std. Div.
SPE_FIRM	0.766	0.000	1.000	1.000	1.000	1.000	0.423
SPE_IND	0.030	0.000	1.000	0.000	0.000	0.000	0.182
MH	0.021	0.000	0.107	0.001	0.009	0.029	0.028
DUAL	0.313	0.000	1.000	0.000	0.000	1.000	0.464
FB	0.583	0.222	1.000	0.421	0.571	0.750	0.216
FC	0.124	0.000	0.465	0.023	0.091	0.193	0.122
BD	9.347	5.000	17.000	8.000	9.000	10.000	2.312
IH	0.348	0.027	0.815	0.171	0.314	0.500	0.215
RD	0.039	0.000	6.996	0.001	0.015	0.037	0.162
LEV	0.082	0.000	0.356	0.000	0.040	0.139	0.100
SIZE	14.993	11.553	20.247	14.036	14.818	15.753	1.343
ROA	9.416	-13.160	31.380	3.450	8.675	15.350	9.840
GROW	14.671	12.240	17.751	13.743	14.532	15.475	1.314
ABSDA	0.125	0.000	0.364	0.047	0.101	0.180	0.097

MH managerial ownership that is measured the percentage of managerial holdings; *FB* is the percentage of family seats of board; *FC* is the ultimately family-controlled ownership that is measured by the percentage of ultimately family-controlled shareholders holdings; *DUAL* is an indicator variable of CEO duality that equals to 1 if a firm's CEO also serves as chairman of the board of directors; and 0 otherwise; *BD* is board size that is measured by the amount of members of a board; *IH* is institutional holdings that is measured by the percentage of institutional holdings; *RD* is R&D intensity that is measured by R&D expense divided by total assets; *LEV* is leverage that is measured by the amount of long-term debt divided by total assets; *SIZE* is company size that is measured by natural log of total assets; *ROA* is the return on asset; *GROW* is growth opportunity that is measured by natural log of sales revenue; *ABSDA* is discretionary intensity that measured by absolute value of discretionary accruals estimated by modified Jones model.

Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 3 shows the correlations among the variables. The specialist variables (*SPE_IND* and *SPE_FIRM*) are significantly correlated because audit firms with specialist auditors are more likely to become specialized audit firms. For the main variables of agency conflicts, we find that both *MH* and *CEO* are significantly positively associated with *SPE_FIRM* but negatively associated with *SPE_IND*, which supports the hypotheses of this study that agency conflicts increase companies' intentions to engage specialist audit firms but decrease their intentions to engage specialist auditors. However, the association between the variables related to family control and the engaging of specialist auditors are conflictive, while *FC* is significantly negatively associated with *SPE_IND*, and *FB* and *SPE_IND* are positively correlated. In addition, we find that *FB* is significantly negatively associated with both the managerial control variables *MH* and *DUAL*, which suggests that the more a board is controlled by family members, the weaker the controlling rights of managers. However, while *FC* is shown to be significantly negatively associated with *MH*, *FC* and *DUAL* are significantly positively correlated. This result may reflect the

characteristic of family controlled companies that most family final controllers select themselves as board chairmen.

4.2 Logistic Regression Results

The regression results for the association between agency conflict variables and the choice of industry specialist auditors are summarized in Table 4. The results for the agency conflicts rising from management control rights show that managerial ownership (*MH*) and CEO duality (*DUAL*) are significantly positively associated with the engagement of specialist audit firms but negatively associated with the engagement of specialist auditors and both level specialist auditors. The results support our hypotheses that, to diminish agency cost, agency conflicts between managers and other stakeholders increase the demand for auditors with "apparent" higher audit quality. On the other hand, in order to protect their self-interest, the control rights of managers decrease the possibility of engaging specialist auditors with "actual" high audit quality.

Table 3. Pearson Correlation Matrix

	<i>SPE_ IND</i>	<i>SPE_ FIRM</i>	<i>MH</i>	<i>FB</i>	<i>FC</i>	<i>DUAL</i>	<i>LEV</i>	<i>RD</i>	<i>BD</i>	<i>IH</i>	<i>SIZE</i>	<i>ROA</i>	<i>GROW</i>	<i>ABSDA</i>
<i>SPE_ IND</i>	1.000													
<i>SPE_ FIRM</i>	0.089 (0.000)***	1.000												
<i>MH</i>	-0.083 (0.000)***	0.094 (0.000)***	1.000											
<i>FB</i>	0.113 (0.000)***	-0.093 (0.000)***	-0.163 (0.000)***	1.000										
<i>FC</i>	-0.033 (0.008)***	-0.029 (0.018)**	-0.044 (0.000)***	-0.064 (0.000)***	1.000									
<i>DUAL</i>	-0.039 (0.001)***	0.010 (0.437)	-0.006 (0.655)	-0.069 (0.000)***	0.131 (0.000)***	1.000								
<i>LEV</i>	0.078 (0.000)***	0.026 (0.036)**	-0.095 (0.000)***	0.081 (0.000)***	-0.079 (0.000)***	-0.011 (0.352)	1.000							
<i>RD</i>	-0.022 (0.071)	0.039 (0.002)***	0.052 (0.000)***	-0.094 (0.000)***	-0.013 (0.272)	0.008 (0.527)	-0.035 (0.004)***	1.000						
<i>BD</i>	0.163 (0.000)***	-0.015 (0.218)	-0.010 (0.435)	-0.071 (0.000)***	-0.213 (0.000)***	-0.172 (0.000)***	0.090 (0.000)***	-0.002 (0.847)	1.000					
<i>IH</i>	0.120 (0.000)***	0.067 (0.000)***	-0.185 (0.000)	0.163 (0.000)***	-0.506 (0.000)***	-0.133 (0.000)***	0.072 (0.000)***	-0.048 (0.000)***	0.194 (0.000)***	1.000				
<i>SIZE</i>	0.237 (0.000)***	0.039 (0.001)***	-0.249 (0.000)***	0.399 (0.000)***	-0.265 (0.000)***	-0.126 (0.000)***	0.283 (0.000)***	-0.140 (0.000)***	0.305 (0.000)***	0.355 (0.000)***	1.000			
<i>ROA</i>	0.012 (0.335)	0.116 (0.000)***	0.166 (0.000)***	-0.186 (0.000)***	0.059 (0.000)***	-0.025 (0.041)**	-0.036 (0.003)***	-0.094 (0.000)***	0.046 (0.000)***	0.195 (0.000)***	0.019 (0.111)	1.000		
<i>GROW</i>	0.197 (0.000)***	0.095 (0.000)***	-0.122 (0.000)***	0.276 (0.000)***	-0.215 (0.000)***	-0.122 (0.000)**	0.206 (0.000)***	-0.170 (0.000)***	0.259 (0.000)***	0.307 (0.000)***	0.860 (0.000)***	0.130 (0.000)***	1.000	
<i>ABSDA</i>	-0.029 (0.010)*	0.032 (0.004)***	0.050 (0.000)***	-0.067 (0.000)***	-0.025 (0.028)**	0.017 (0.132)	-0.031 (0.007)***	-0.027 (0.018)**	0.002 (0.841)	-0.018 (0.118)	-0.076 (0.000)***	0.055 (0.000)***	-0.048 (0.000)***	1.000

MH managerial ownership that is measured the percentage of managerial holdings; *FB* is the percentage of family seats of board; *FC* is the ultimately family-controlled ownership that is measured by the percentage of ultimately family-controlled shareholders holdings; *DUAL* is an indicator variable of CEO duality that equals to 1 if a firm's CEO also serves as chairman of the board of directors; and 0 otherwise; *BD* is board size that is measured by the amount of members of a board; *IH* is institutional holdings that is measured by the percentage of institutional holdings; *RD* is R&D intensity that is measured by R&D expense divided by total assets; *LEV* is leverage that is measured by the amount of long-term debt divided by total assets; *SIZE* is company size that is measured by natural log of total assets; *ROA* is the return on asset; *GROW* is growth opportunity that is measured by natural log of sales revenue; *ABSDA* is discretionary intensity that measured by absolute value of discretionary accruals estimated by modified Jones model.

Statistical significance: *p < .05; **p < .01; ***p < .001.

Table 4. Logistic regression results of the association between agency conflicts and choice of specialist auditors

$$Y_{i,j,t} = \beta_1 + \beta_2 MH_{i,j,t} + \beta_3 DUAL_{i,j,t} + \beta_4 FB_{i,j,t} + \beta_5 FC_{i,j,t} + \beta_6 BD_{i,j,t} + \beta_7 IH_{i,j,t} + \beta_8 RD_{i,j,t} + \beta_9 LEV_{i,j,t} + \beta_{10} SIZE_{i,j,t} + \beta_{11} ROA_{i,j,t} + \beta_{12} GROW_{i,j,t} + \beta_{13} ABSDA_{i,j,t} + \varepsilon$$

	Panel A		Panel B		Panel C	
	<i>SPE_IND</i>		<i>SPE_FIRM</i>		<i>SPE_BOTH</i>	
	Coeff.	Wald	Coeff.	Wald	Coeff.	Wald
<i>INTERCEPT</i>	-19.709	27.458 ***	-1.600	17.177 ***	-21.054	29.409 ***
<i>MH</i>	-80.555	23.683 ***	7.247	37.292 ***	-138.633	30.649 ***
<i>DUAL</i>	-0.305	1.630	0.078	1.623	-0.240	0.926
<i>FB</i>	0.902	3.459 **	-0.930	41.834 ***	0.796	2.456
<i>FC</i>	3.839	25.073 ***	-0.527	5.102 **	4.077	26.008 ***
<i>BD</i>	0.211	54.447 ***	-0.060	21.681 ***	0.208	48.510 ***
<i>IH</i>	0.442	0.260	0.342	0.337	0.588	0.447
<i>RD</i>	-84.852	53.087 ***	1.099	9.938 ***	-86.603	49.674 ***
<i>LEV</i>	2.364	8.591 ***	0.329	1.254	2.163	6.402 **
<i>SIZE</i>	0.392	9.756 ***	0.011	0.060	0.367	7.632 ***
<i>ROA</i>	0.019	2.838 ***	0.020	46.898 ***	0.021	3.170 *
<i>GROW</i>	0.497	13.176 ***	0.251	36.157 ***	0.618	17.925 ***
<i>ABSDA</i>	-2.411	5.754 ***	0.588	4.183 **	-2.406	5.303 **
N	7813		7813		7813	
Cox & Snell R²	0.101		0.040		0.105	
Nagelkerke R²	0.464		0.060		0.498	
χ²	832.805		315.200		867.718	
Significance	0.000		0.000		0.000	

MH managerial ownership that is measured the percentage of managerial holdings; *FB* is the percentage of family seats of board; *FC* is the ultimately family-controlled ownership that is measured by the percentage of ultimately family-controlled shareholders holdings; *DUAL* is an indicator variable of CEO duality that equals to 1 if a firm's CEO also serves as chairman of the board of directors; and 0 otherwise; *BD* is board size that is measured by the amount of members of a board; *IH* is institutional holdings that is measured by the percentage of institutional holdings; *RD* is R&D intensity that is measured by R&D expense divided by total assets; *LEV* is leverage that is measured by the amount of long-term debt divided by total assets; *SIZE* is company size that is measured by natural log of total assets; *ROA* is the return on asset; *GROW* is growth opportunity that is measured by natural log of sales revenue; *ABSDA* is discretionary intensity that measured by absolute value of discretionary accruals estimated by modified Jones model.

Statistical significance: *p < .05; **p < .01; ***p < .001.

Table 5. Logistic regression results of the association between agency conflicts and choice of specialist auditors for Big Four

$$Y_{i,j,t} = \beta_1 + \beta_2 MH_{i,j,t} + \beta_3 DUAL_{i,j,t} + \beta_4 FB_{i,j,t} + \beta_5 FC_{i,j,t} + \beta_6 BD_{i,j,t} + \beta_7 IH_{i,j,t} + \beta_8 RD_{i,j,t} + \beta_9 LEV_{i,j,t} + \beta_{10} SIZE_{i,j,t} + \beta_{11} ROA_{i,j,t} + \beta_{12} GROW_{i,j,t} + \beta_{13} ABSDA_{i,j,t} + \varepsilon$$

	Panel A		Panel B		Panel C	
	<i>SPE_IND</i>		<i>SPE_FIRM</i>		<i>SPE_BOTH</i>	
	Coeff.	Wald	Coeff.	Wald	Coeff.	Wald
<i>INTERCEPT</i>	-18.509	94.578 ***	-0.640	1.261	-19.778	18.493 ***
<i>MH</i>	-89.800	24.156 ***	13.977	42.334 ***	-15.064	30.918 ***
<i>DUAL</i>	-0.280	1.334	0.279	8.177 ***	-0.221	0.760
<i>FB</i>	1.104	4.851 **	-1.504	48.116 ***	1.045	3.980
<i>FC</i>	3.951	25.384 ***	-0.131	0.137	4.112	25.158 ***
<i>BD</i>	0.210	49.842 ***	-0.071	14.268 ***	0.204	43.168 ***
<i>IH</i>	-0.483	0.303	0.106	0.016	-0.625	0.495
<i>RD</i>	-84.117	52.335 ***	0.124	0.377	-85.969	49.078 ***
<i>LEV</i>	2.156	6.898 ***	0.456	1.023	1.919	4.883 **
<i>SIZE</i>	0.354	7.664 ***	-0.026	0.151	0.319	5.574 **
<i>ROA</i>	0.016	1.999	0.017	14.110 ***	0.017	2.181
<i>GROW</i>	0.466	11.287 ***	0.283	20.887 ***	0.594	16.199 ***
<i>ABSDA</i>	-2.126	4.269 **	1.457	10.116 ***	-2.200	4.230 **
N	6543		6543		6543	
Cox & Snell R²	0.115		0.035		0.119	
Nagelkerke R²	0.478		0.073		0.510	
χ²	798.006		232.974		830.001	
Significance	0.000		0.000		0.000	

MH managerial ownership that is measured the percentage of managerial holdings; *FB* is the percentage of family seats of board; *FC* is the ultimately family-controlled ownership that is measured by the percentage of ultimately family-controlled shareholders holdings; *DUAL* is an indicator variable of CEO duality that equals to 1 if a firm's CEO also serves as chairman of the board of directors; and 0 otherwise; *BD* is board size that is measured by the amount of members of a board; *IH* is institutional holdings that is measured by the percentage of institutional holdings; *RD* is R&D intensity that is measured by R&D expense divided by total assets; *LEV* is leverage that is measured by the amount of long-term debt divided by total assets; *SIZE* is company size that is measured by natural log of total assets; *ROA* is the return on asset; *GROW* is growth opportunity that is measured by natural log of sales revenue; *ABSDA* is discretionary intensity that measured by absolute value of discretionary accruals estimated by modified Jones model.

Statistical significance: *p < .05; **p < .01; ***p < .001.

However, for agency conflicts that arise from family control rights, the results show that the coefficients of both *FB* (percentage of family seats of board) and *FC* (ultimately family-controlled ownership) are significantly positive at auditor level and negative at audit firm level, which suggest that family-controlled companies are more likely to engage specialist auditors but less likely to engage specialist audit firms. These findings reflect a major characteristic of family controlled companies, namely that in order to secure their ownership, they take a pragmatic approach and agree to be audited strictly by specialist auditors who might reveal any fraud or errors in the company accounts, instead of simply hiring “apparent” high quality audit firms for signaling purposes. In addition, *R&D* expenses (*R&D*) and discretionary intensity (*ABSDA*), which are suggested to endogenously generate opportunities for earnings management, are significantly positively associated with the engagement of specialist audit firms but negatively associated with the engagement of specialist auditors and both levels of specialist auditor. Thus will the potential magnitude of the agency costs associated with accounting distortion increase the demand for auditors with “apparent” higher audit quality, and decrease the possibility of engaging specialist auditors with “actual” high audit quality. The results support our hypotheses that agency conflicts will increase companies’ demand for specialist audit firms but decrease companies’ demand for specialist auditors.

5 Additional tests

We now describe some of the additional robustness checks we carried out on our data to assess the reliability of our findings, including the test of the effect of firm size, alternative specifications of specialist auditors, the influence of audit experience on specialization, and the influence of leading and concurring auditors.

5.1 The effects of firm size

Given that most previous studies of auditor specialization include only specialists employed by Big N firms, we sampled only those companies audited by Big 4 firms, in order to check the robustness of our results. Table 5 presents the logistic regression results for clients of Big 4 firms, and shows that the main findings are similar to those of the total sample.

5.2 Alternative specifications of specialist auditors

In order to ensure the results of this study are not driven by the 10% cut-off point of specialist auditors,

we use the following alternative cut-off points to define specialist auditors and audit firms to test for robustness. First, we defined the five largest auditors and the two largest audit firms as specialists. The main findings are similar to those shown in Table 4. Second, we use 20% and 3% as cut-offs, which respectively represent around the first 10% of audit firms’ and auditors’ market share, to define specialist audit firms and auditors, and again main findings did not change.

5.3 The influence of audit experience on specialization

Most of the previous studies related to auditor specialization ignore the influence of auditors’ experience in their empirical tests. However, Ferguson et al. (2003) indicate that deep industry knowledge resides in individual experts and is acquired through experience in a specific industry; in other words, auditors’ experience in a specific industry should be considered for measuring auditor specializations. Therefore, to consider experience of auditing a specific industry, we use three-year market share to identify specialist auditors for further analysis. Again, the results are similar to those of the main analyses.

5.4 The influence of leading and concurring auditors

In Taiwan, public companies must be audited by two auditors, which raises a measurement issue concerning the identification of specialist auditors. Thanks to knowledge spill-over, whichever auditor is the specialist can share his or her knowledge with the whole audit team; therefore, as long as one of a company’s leading or concurring auditors is a specialist in an industry, the company will be classified into a group audited by a specialist in our main analyses. However, when selecting auditors, it is possible for the specializations of leading and concurring auditors to be considered separately. For this reason, we separate sample companies into those audited by specialist leading auditors and those audited by specialist concurring auditors. The results shown in Table 6 reveal no distinctly different effect of agency conflicts on the choice of specialist auditors between leading and concurring auditors.

6 Conclusions

The key objective of this study is to explore the influence of company agency conflicts on the choice of specialist audit firms and auditors. The study examines data on the engagement of specialist audit firms and specialist auditors in order to identify the real intentions of managers in Taiwan.

Table 6. Logistic regression results of the association between agency conflicts and choice of specialist auditors for leading and concurring auditors

$$Y_{i,j,t} = \beta_1 + \beta_2 MH_{i,j,t} + \beta_3 DUAL_{i,j,t} + \beta_4 FB_{i,j,t} + \beta_5 FC_{i,j,t} + \beta_6 BD_{i,j,t} + \beta_7 IH_{i,j,t} + \beta_8 RD_{i,j,t} + \beta_9 LEV_{i,j,t} + \beta_{10} SIZE_{i,j,t} + \beta_{11} ROA_{i,j,t} + \beta_{12} GROW_{i,j,t} + \beta_{13} ABSDA_{i,j,t} + \varepsilon$$

	Panel A		Panel B	
	Leading Auditors		Concurring Auditors	
	Coeff.	Wald	Coeff.	Wald
<i>INTERCEPT</i>	-21.169	218.443 ***	-27.276	21.982 ***
<i>MH</i>	-78.243	25.949 ***	-81.875	13.196 ***
<i>DUAL</i>	-0.174	0.498	-0.329	1.052
<i>FB</i>	0.586	1.309	2.252	11.456 ***
<i>FC</i>	4.574	32.432 ***	4.727	20.661 ***
<i>BD</i>	0.233	58.209 ***	0.256	50.065 ***
<i>IH</i>	-0.253	0.083	-0.984	1.051
<i>RD</i>	-85.060	49.495 ***	-86.398	36.525 ***
<i>LEV</i>	2.741	10.360 ***	3.107	9.141 ***
<i>SIZE</i>	0.333	6.137 **	0.654	16.000 ***
<i>ROA</i>	0.020	2.966 *	0.028	3.647 *
<i>GROW</i>	0.640	18.209 ***	0.540	8.148 ***
<i>ABSDA</i>	-3.021	7.838 ***	-1.723	1.858
N	6543		7813	
Cox & Snell R ²	0.115		0.099	
Nagelkerke R ²	0.478		0.571	
χ^2	798.006		816.450	
Significance	0.000		0.000	

MH managerial ownership that is measured the percentage of managerial holdings; *FB* is the percentage family seats of board; *FC* is the ultimately family-controlled ownership that is measured by the percentage ultimately family-controlled shareholders holdings; *DUAL* is an indicator variable of CEO duality that equals 1 if a firm's CEO also serves as chairman of the board of directors; and 0 otherwise; *BD* is board size that measured by the amount of members of a board; *IH* is institutional holdings that is measured by the percenta of institutional holdings; *RD* is R&D intensity that is measured by R&D expense divided by total assets; *LEV* leverage that is measured by the amount of long-term debt divided by total assets; *SIZE* is company size that measured by natural log of total assets; *ROA* is the return on asset; *GROW* is growth opportunity that measured by natural log of sales revenue; *ABSDA* is discretionary intensity that measured by absolute value discretionary accruals estimated by modified Jones model.

Statistical significance: *p < .05; **p < .01; ***p < .001.

Most of the studies that discuss the demand for high quality audits suggest that those companies that experience significant agency conflicts are more likely to engage high quality auditors to reduce the agency problem and signal the credibility of their financial statements. However, from the perspective of reporting strategy, agency conflicts may also cause managers to be disinclined to engage high-quality auditors. In other words, companies may not seek industry-specialist auditors because they wish to avoid enhanced disclosure altogether. Therefore, agency conflicts may not always increase managers' intentions to engage high quality auditors for the sake of better market reactions, and may even reduce managers' inclinations to engage high quality auditors.

While previous studies discuss the correlation between agency conflicts and companies' demand for high quality audits, few discuss them in terms of

ownership structure and the different intentions of managers, because the contrasting effects of the agency problem in the decision to engage high-quality auditors are difficult to distinguish. Herein, we use the engagement of specialist audit firms and auditors to identify the real intentions of managers, using data from Taiwan. We propose that specialist auditors possess a higher "actual" audit quality than non-specialist ones, while specialist audit firms may have higher "apparent" audit quality than non-specialist ones, and we also propose that a client who chooses a specialist auditor does so to achieve "actual" audit quality, while the choice of a specialist audit firm indicates a desire for "apparent" audit quality. Moreover, we expect that the agency conflicts that arise from company ownership structures will influence the likelihood that a company will engage specialist audit firms and specialist auditors.

Following previous studies, we use management control factors (e.g., management holdings and CEO duality), family control factors (e.g., numbers of family board members, ultimately family-controlled shareholders), and board structures (e.g., board size and control rights) to examine the association between companies' agency conflicts and their choice of industry specialist audit firms and specialist auditors.

The results for the agency conflicts arising from management control rights show that managerial ownership (*MH*) and CEO duality (*DUAL*) are significantly positively associated with the engagement of specialist audit firms but negatively associated with the engagement of specialist auditors and both (firm and individual) levels of specialist auditors. In addition, the results of *R&D* expenses (*R&D*) and discretionary intensity (*ABSDA*), which are suggested to generate opportunities for earnings management endogenously, also support our hypotheses.

In summary, our main results support the hypotheses that agency conflicts will increase companies' demand for specialist audit firms but decrease companies' demand for specialist auditors. In other words, the probability and potential magnitude of agency costs associated with interest entrenchment increases the demand for auditors with higher "apparent" audit quality with respect to the signaling role of audits, but decreases the possibility of engaging specialist auditors with higher "actual" audit quality with respect to substantial monitoring. The results also reflect a major characteristic of family-controlled companies, that in order to secure their ownership, they assume a pragmatic approach and agree to be strictly audited by specialist auditors who may reveal any fraud or error in the company accounts, rather than simply hiring "apparent" high quality audit firms for signaling purposes.

This study contributes to the industry specialist literature by creating a setting from which to examine the demand-side effects of the selection of industry-specialist audit firms and specialist auditors, by considering the impact of companies' agency conflicts between controlling owners and minority shareholders. Most previous studies focus on supply-side aspects in order to discuss the specialization strategies of audit firms. In addition, this study contributes to the literature in auditor choice by examining the influence of clients' reporting strategies on their demand for high-quality audits by specialized auditors; most previous studies use Big N (or Non-Big N) auditors to measure this. Furthermore, by examining specialist auditors at the audit firm and auditor levels, this study distinguishes between "actual" and "apparent" audit quality in the discussion of companies' demand for audits.

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