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경영학석사학위논문

**The effects of client importance on the
initial audit fee discount**

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The effects of client importance on the initial audit fee discount

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ABSTRACT: I examine whether client importance at each audit office affects audit pricing at the time of an initial audit engagement as well as continuing engagements. Based on a sample of US firms in 2004 to 2013, the post-Sarbanes-Oxley Act (post-SOX) periods, I find that clients pay audit fee premiums at an initial audit engagement year and that important clients discount these premiums. The findings imply that important clients discount the premium of an initial engagement by exercising relatively great bargaining power. Next, I test whether the effect of client importance on initial audit pricing is sensitive to 1) types of auditors and 2) macro economy conditions. I find that the negative impact of client importance on initial audit pricing is significant only for non-Big 4 auditors. The finding suggests that either small bargaining power or little legal and reputational risk make small auditors to yield the pressures from important clients. Second, I find that the negative impact of client importance on initial audit pricing is significant only for post-crisis period (2010-2013), neither pre-crisis nor crisis periods. The findings suggest that the downward fee pressure during the crisis period affects the relationship between client importance and initial audit fee and that the effect is prolonged after the crisis.

Keywords: audit fees, client importance, auditor-client relationship, quasi-rent

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I. INTRODUCTION

This study examines whether client importance influences audit fees. Client importance implies the economic significance of a specific client to each audit office (Chung and Kallapur 2003; Reynolds and Francis 2001). Specifically, this study empirically investigates the following four questions; (1) Does client importance influence audit fees in the period after the enforcement of Sarbanes-Oxley Act (SOX)? (2) Is the influence of client importance on audit fees more pronounced at the time of initial audit engagement? (3) Does the influence of client importance differ between Big 4 and non-Big 4 auditors? (4) Does the influence of client importance differ between economic crisis and non-crisis periods?

There has been a great concern about the potential adverse effects of inadequate audit pricing on audit quality. The inadequate low audit fees could lead to poor audit quality in two different ways. First, the low audit fee could reduce the audit effort to comply with auditing standard (Goelzer 2010; NASBA 2010). If auditors do not exert enough audit effort to reduce audit risk to the acceptable level, the auditors may not be able to detect and restrict any accounting error or bias in financial reports (Public Company Accounting Oversight Board (PCAOB) 2008). As a result, audit quality could drop in such a situation (Caramanis and Lennox 2008). Second, the low audit fees could lead auditors to acquiesce in a pressure from the client in order to continue auditor-client relationship and recoup the discounted fees for an extended future period, leading to impaired auditor independence (Commission on Auditors' Responsibility (Cohen Report), 1978; PCAOB 2011).

The frequently cited pricing practice is a substantial fee discount at the time of an initial audit engagement (Chan 1999; Craswell and Francis 1999; Ghosh and Lustgarten 2006; Simon and Francis 1998). The ‘special introductory offer’ or ‘low-balling’ practice attracts a lot of attention from both practitioners and regulators (American Institute of Certified Public Accountants 1978; PCAOB 2011; Securities and Exchange Commission (SEC) 2000; U.S. Senate 2002). It is because that the impaired auditor independence and reduced audit efforts resulted from the low audit fees could be more pronounced at the time of the initial audit engagement than continuing engagements. Auditors need to spend more time and energy in auditing a new client than auditing other clients since they are not familiar with the issues related to auditing the new client (Dye 1993). Thus, the risk of audit failure will be high if auditors accept low-fee paying new clients and do not exert enough audit efforts for the clients. In addition, the negative impact of the low audit fees on auditor independence will be greatest if the auditors’ incentive to attract and retain the clients is greatest at the time of an initial engagement.

Regarding with the practice, theoretical studies investigate why auditors low-ball the initial audit fees (Chan 1999; Dye 1991; Magee and Tseng 1990; DeAngelo 1981). Subsequent studies investigate the empirical evidences of the low-balling practice. Most studies using data collected before the enforcement of SOX in 2002 document the existence of the practice (Ghosh and Lustgarten 2006; Huang et al. 2009; Simon and Francis 1988). However, the studies using the sample in the post-SOX period document mixed results of the existence of discounts. Some studies even find the audit

fee premiums at the initial audit year under the strong legal regime (Ghosh and Pawlewicz 2009; Huang et al. 2009). However, Desir et al. 2014 report that the practice still exist in post-SOX period.

The enactment of SOX increases the costs of the low-balling practice as it increases both the scope of audit work and the legal liability of auditors (Huang et al. 2009). In the situation, auditors should balance benefits of the practice against costs. In this study, I suggest that auditors selectively discount initial audit fee depending on client importance in order to maximize the net benefits of the practice.

As auditors have conflicting incentives in dealing with important clients, client importance can affect both benefits and costs of the low-balling practice. First, important clients could have relatively great bargaining power over auditors and thus force auditors to lower audit fees (Huang et al. 2007). The pressure from important clients is likely to enhance the magnitude of audit fee discount at the fee negotiation process (Asthanan and Boone 2012), especially when an auditor first engages in the audit for the client. In this case, auditors can signal their willingness to attract and accommodate the important clients by responding to the fee pressures of important clients. I call this view as ‘demand side effect’.

In contrast, auditors may behave more carefully to audit important clients because audit failure related to important clients could result in serious reputational and financial damages to auditors. Auditors have incentives to expand the scope of audit service to lessen audit risk for important clients (Chen et al. 2010; Reynolds and Francis 2000). As a result, they may charge relatively high fees to compensate for the increased

audit efforts for important clients, especially at the time of initial audit engagement because the audit risk is higher in the year than the years of subsequent audits (Johnson et al. 2002; Myers et al. 2003). Under this view, the costs of the low-balling practice increase with client importance. I call this view as ‘supply side effect’. Given the two conflicting views, it is unclear whether demand side effect or supply side effect dominate the other. Thus, it is an empirical question how client importance is related to audit fees in general and in the year of initial audit engagement.

As a next research topic, I examine whether 1) types of auditors (Big 4 versus non-Big 4 auditors, i.e., sub-sample analysis) and 2) a macro economic situation (crisis versus non-crisis period, i.e., sub-period analysis) influence the association between audit fees and client importance.

First, the sub-sample analysis is to identify the differential extent of the supply side effect since Big 4 auditors and non-Big 4 auditors have different levels of legal or reputational concerns. Big 4 auditors face greater legal and reputational costs when an audit failure occurs than non-Big 4 auditors (Dye 1993). Thus, they may have incentive not to yield to client pressure (if any) but to maintain great independence (Becker et al. 1998). In addition, the sub-sample analysis is to reveal the differential extent of the demand side effect since Big 4 auditors have greater bargaining power over clients than non-Big 4 auditors do. Because Big 4 auditors audit the more number of clients in general than non-Big 4 auditors, the influence of a specific client to the auditor could be smaller for Big 4 auditors than for non-Big 4 auditors. Therefore, I expect that the supply side effect is greater for the clients audited by Big 4 auditors than non-Big 4

auditors while the demand side effect is smaller for client audited by Big 4 auditors than non-Big 4 auditors.

Secondly, the sub-period analysis is to investigate the differential impacts of client importance on audit fee by fee pressures. Prior studies suggest that an exogenous economic shock invokes downward pressures on audit fee. The economic recession reduces client's profitability and thus introduce the downward audit fee pressure (Ettredge et al. 2014; Cheffers and Whalen 2011; Christensen et al. 2013). PCAOB (2010) also notes that "The Board's inspection staff is aware that as a result of economic crisis and other factors, auditors might be pressured to significantly reduce their audit fees." Therefore, I expect that the demand side effect is relatively greater during world economic crisis period than the other periods.

Using 31,545 observations collected in the post-SOX period (from 2004 to 2013), I empirically examine these predictions. Following prior studies (e.g., Desir et al. 2014; Huang et al. 2009; Ghosh and Pawlewicis 2009; Ghosh and Lustgarten 2006), I compare audit fees of an initial audit and of continuing audits to isolate the distinctive pricing for the initial engagement. Then, I test whether office-level client importance has any effect on audit pricing for both an initial audit and continuing audits. I measure client importance by the relative size of a specific client to the sum of size of all clients of an audit office (Chung and Kallapur 2003; Reynolds and Francis 2000). I follow this audit office-level approach because each audit office is a decision-making unit of audit-related matters (Francis 2004; Wallman 1996).

The findings with the full sample are summarized as follows: Consistent with prior

studies (Huang et al. 2007; Casterella et al. 2004), there is a significant audit fee discount for important clients in the post-SOX period. This finding supports that important clients discount audit fees by exercising bargaining power. Next, I find a significant audit fee premium for the initial audit engagement year, consistent with the findings of Ghosh and Pawlewicz (2009) and of Huang et al. (2009). However, the fee premium at the year is significantly smaller for important clients. The finding suggests that client importance plays a more pronounced role in reducing audit fees in the year than other years. The results of the full sample analysis generally support the demand side effect of client importance on audit fees.

The results of sub-sample and sub-period analyses are dramatically different from those of the full sample analysis. First, the negative impacts of client importance on audit fees, both in general and in the year of initial audit engagement, are restricted to the clients of non-Big 4 auditors. In contrast, audit fees of Big 4 auditors are not affected by client importance both in general and in the year of initial audit engagement. The results support the dominant demand side effect over the supply side effect for non-Big4 auditors and the dominant supply side effect over the demand side effect for Big 4 auditors. Second, I divide the sample into crisis (2008-2009) and non-crisis periods (2004-2007 and 2010-2013) and repeat analysis. I find significant audit fee discounts for important clients in both crisis and non-crisis periods. The finding suggests that the demand side effect in continuing audits is insensitive to a macro economy situation. However, the effects of client importance on initial audit fees are significantly different in the crisis and the non-crisis period. The initial audit is at premium in non-crisis period,

and the premium is discounted by important clients. The finding suggests that important clients discount the premium of the initial audit during the non-crisis period. In contrast, the initial audit is at discount in the crisis period, and there is no significant impact of client importance on the discount. The result suggests that auditors who are already suffered from the discount on the initial audit during the crisis period do not offer the discount for important clients.

I perform an additional analysis by classifying the non-crisis period into pre-crisis (2004-2007) and post-crisis (2010-2013) period. I find that the results of the post-crisis period are similar to those of the crisis period: the important clients discount continuing audit fees, and there is a fee discount for an initial audit engagement. The findings suggest that downward fee pressure occurred in crisis period (Ettredge et al. 2014) and the demand side effect persists in the post-crisis period. Interestingly, I find the negative impact of client importance on initial audit fees only in the post-crisis period, neither in pre-crisis period nor in crisis period. Finally, I find that both Big 4 auditors and non-Big 4 auditors yield the downward fee pressure for an initial engagement from important clients in post-crisis period. The additional analysis reveals the emergence of the negative impact of client importance on initial audit pricing in the post-crisis period.

The findings in this study contribute in various ways. As mentioned previously, regulators have great concerns on the potential detrimental effects of the low fees. This study identifies the situation in which the fee discount occurs: important clients exert great bargaining power and force concessions to auditors at the fee negotiation process,

especially to small auditors. Thus, my findings should be informative for regulators. Regulators need to develop the effective mechanisms to lessen the effect of client's bargaining power and to maintain adequate audit quality for small auditors. In addition, regulators need to be watchful at the time of crisis period in which even large auditors yield the client pressures and discount fees to attract new clients. Investors and practitioners also need to be aware of the findings in their decision-makings. For example, practitioners need to develop an institutional system to charge appropriate fees in their client acceptance and continuance decisions and to establish an adequate supervision and review process in case of low audit fees (e.g., NASBA 2010). Finally, this study is the first to show that the demand side effect has been intensified in post-crisis period, implying that downward fee pressures resulted from the economic recession could mitigate the effects of the strengthened legal regime of the post-SOX period.

The remainder of the paper is structured as follows. In section 2, I review the relevant literature and develop research hypotheses. Next, I discuss my research design and specify empirical models in section 3. Section 4 describes sample and presents descriptive statistics, and Section 5 provides empirical results of main tests. Finally, Section 6 sets forth the conclusion.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Literature Review on Audit Fees

Prior literature of audit pricing has examined cross-sectional determinants of audit fees. These determinants are size of a client firm, complexity of client's business or operation, and audit risk, and they largely explain audit fees (Bedard and Johnstone 2004; Choi et al. 2008; Simunic 1980). The practice of audit pricing has attracted a lot of attention on account of its effects on audit quality. It is necessary for auditors to receive adequate level of audit fees to conduct high-quality audits (Asthana and Boone 2012). First, auditors need adequate audit fees to cover the adequate audit efforts to comply with auditing standards. Auditors is likely to be reluctant to increase audit efforts if fees are too low to cover audit costs (Goelzer 2010; NASBA 2010). If auditors do not exert enough audit efforts, they may be unable to detect and restrict an accounting error or bias in financial reports (PCAOB 2008). As a result, audit quality could drop in the case (Caramanis and Lennox 2008; Ettredge et al. 2014; Kwon et al. 2012). Second, the low audit fee could lead auditors to acquiesce in a pressure from client in order to continue auditor-client relationship and recoup the discounted fee for an extended future period, leading to impaired auditor independence (Cohen Report 1978; PCAOB 2011; SEC 1978, 2000). Because of these two reasons, it is necessary for auditors to receive adequate level of audit fees to maintain audit quality. Asthana and Boone (2012) document that low audit fees are generally related to poor audit quality and that the negative impact of low audit fees on audit quality is more pronounced in the pre-SOX period than the post-SOX period.

Regulators specifically have paid an attention on audit fee discounts at the time

of an initial audit engagement, i.e. the low-balling practice. It is because that the negative effects of audit fee discounts can be more severe for an initial engagement than other engagements. Initial audit typically requires auditors to spend additional audit efforts and time understanding economic substances of the new client's business and the client-specific accounting practices or treatments (Turner 2002; Dye 1991). If auditors cut down audit efforts to cover the inadequately low audit fees in the year of initial audit, they will not be able to grasp the critical issues in auditing, providing low quality audit (Johnson et al. 2002; Myers et al. 2003). That is why regulators have great concerns on the potential negative effect of audit fees at the year.

The evidences of the practice are widely documented in the pre-SOX period (Huang et al. 2009; Ghosh and Lustgarten 2006; Simon and Francis 1998; Ettredge and Greenberg 1990). Based on survey data, Simon and Francis (1988), Ettredge and Greenberg (1990), and Turpen (1990) demonstrate the existence of the fee discounting on an initial audit engagement. Ghosh and Lustgarten (2006) also document that clients switching auditors discount audit fees and that the practice of the initial fee discounting is more pronounced for non-Big 4 auditors than Big 4 auditors.

However, studies using more recent data in the post-SOX period report mixed results on the existence of the practice. In a response to accounting scandals around early 2000s, the audit market in U.S. experienced dramatic changes including the enforcement of Sarbanes-Oxley Act (SOX) and additional requirements for the audit of internal control during the period from 2002 to 2004 (Huang et al. 2009; Ghosh and Pawlewicz 2009). These changes extended the scope of audit service and strengthened

auditor's responsibilities. As a result, auditors face much greater legal liability than before, significantly increasing audit fees (Ghosh and Pawlewicz 2009). In such a heightened legal regime, auditors have great incentives to expand the scope of audit for a risky engagement including an initial audit engagement. High-quality auditors such as Big 4 auditors are more likely than non-Big 4 auditors to have such incentives to be careful to audit a new client because Big 4 auditors are sensitive to the changes of legal liability than non-Big 4 auditors (Choi et al. 2008). Consistent with the view, Ghosh and Pawlewicz (2009) find that Big 4 auditors start to charge audit fee premiums at the time of initial audit engagement while non-Big 4 auditors continue the practice of low-balling, based on the data from the early post-SOX period. However, using the data for the period from 2007 to 2010, Desir et al. (2014) document the existence of practice for the clients of both types of auditors. Desir et al.'s (2014) finding suggests the possible overreaction in audit fees for the early post-SOX period. My study examines one of the potential factors, client importance, that explain the auditor's low-balling practice in the post-SOX period.

2.2 Literature Review on Client Importance

As a client hires and pays an auditor, the client can avail of a threat to dismiss and switch its auditor to achieve a goal in an auditor-client negotiation. This threat gives the client's bargaining power over the auditor, as a result, the client can exercise power to influence on auditor's decisions on auditing-related issues.

Client importance can reinforce client's bargaining power. It refers to economic

significance of any client to the auditor's revenue. If the auditor is more afraid of losing a client with substantial economic significance than a client with low economic significance, client importance will strengthen client's bargaining power and affect the decisions making in auditor-client negotiations. As a result, an auditor tends to compromise its independence and provide low quality audit for an important client because of its economic dependence on the client (DeFond et al. 2002). Legislators and regulators have expressed concerns that the relatively great economic dependence on high-paying clients causes auditors to compromise their independence (PCAOB 2010).

On the other hand, an auditor is also faced to great market-based and institutional incentives not to compromise independence when dealing with important clients (Reynolds and Francis 2000; Shafer et al. 1999; Bonner et al. 1998; Krishnan and Krishnan 1997; Palmrose 1988; Watts and Zimmerman 1983). Auditors have incentive to be independent and provide high quality audit service since audit quality is priced in the market for audit service (Skinner and Srinivasan 2012). If audit quality is valuable to client firms, client firms are not likely to hire auditors with deteriorated reputation for audit service quality. Under the view, auditors have incentive to be independent and provide high quality audit when auditors can suffer reputational loss through fewer clients and lower audit fees than before. Negligent or questionable audit for important clients would be more visible and so damage auditor's reputation than that for other clients. Therefore, auditors are likely to be independent for important clients.

Thus, there are both costs and benefits of treating important clients favorably. Regarding with the conflicts between costs and benefits, Li (2009) provides the

evidence that the auditor's propensity to issue a going-concern opinion is not significantly associated with client importance in the pre-SOX period but positively associated in the post-SOX period. The evidence suggests that reputational and legal risk related to important clients dominates over economic dependence on important clients under the strong legal regime.

In addition to the discussion about audit quality, some papers address the discussion about the effect of client importance on audit pricing. As audit pricing is also the important issue of auditor-client negotiations, client importance potentially affects an auditor's behavior in the fee negotiation and thus audit pricing. Some studies report that large clients discount the fee premium of industry-specialist auditors (Casterella et al. 2004; Huang et al. 2007). These studies demonstrate that client importance could negatively affect audit fee. However, others report the positive relation between the magnitude of industry-specialist audit fee and client firm's size (Ferguson et al. 2003; Ferguson and Stokes 2002; Craswell et al. 1995).

My study is different from above mentioned studies in that it investigates the impacts of client importance on general audit fees, not just on the premium of the industry-specialists. In addition, no prior study examines the effects of client importance on initial audit pricing.

2.3 Hypothesis Development

While many studies investigate the audit pricing, a few focus on the influence of client importance on audit fee. When the fees from an audit engagement to any client represent

a great proportion of total revenues of an audit office, the economic dependence of the auditor on the client could affect the auditor's behaviors. There are two possible scenarios how client importance influences the audit fees: demand side effect and supply side effect.

First, based on a demand side effect, I expect that the magnitude of audit fee discounts is positively related to client importance. Important clients could force, by exercising relatively great bargaining power, auditors to discount audit fees. If auditors are afraid of losing important clients, they may acquiesce in the fee pressures.

Based on a supply side effect, on the other hand, I expect the audit fee premium for the important clients. Auditors may be more carefully to audit important clients because an audit failure related to important clients could result in serious reputational and financial damage to auditors. For example, Arthur Andersen collapsed due to Enron-related audit failure. Thus, auditors have incentives to expand the scope of audit service to lessen audit risk for important clients (Chen et al. 2010; Li 2009; Reynolds and Francis 2000), increasing audit fees to compensate for the increased audit efforts.

Given the two conflicting views, it is unclear whether the demand side or the supply side effect dominate the other. Therefore, it is an empirical question how client importance is related to audit fees in general. I propose this question as the first research hypothesis in a null form:

Hypothesis 1: Audit fee is not related to client importance in general.

Second hypothesis is about the influence of client importance on initial audit

fees. Audit pricing at an initial engagement year is distinctive for three reasons. Prior studies suggest both upward and downward pressures on an initial audit pricings. First, great audit effort and audit risk can put upward fee pressures on an initial audit. Compared to an incumbent auditor, a new auditor is required to spend much time and effort understanding client firm's business operation and accounting practices or treatments and grasping key issues of auditing (Dye 1991). Second, a new auditor may bear more audit risk than an incumbent auditor if it is more likely than the incumbent auditor to miss any accounting error or bias in the new client's financial statements (Johnson et al. 2002; Myers et al. 2003). Finally, an auditor would face downward fee pressures on an initial audit. Auditors could discount initial audit fees to attract new clients in a competitive audit market (Ghosh and Pawlewicis 2009; Ghosh and Lustgarten 2006; Chan 1999). In the market, auditors can express their willingness to attract and accommodate a client, and one of the way is to discount fees (Moore et al. 2006).

Client importance would increase both upward and downward fee pressures on initial audit fees. On the one hand, auditors would charge greater initial audit fees for important clients than for others. Given the increased audit risk at the initial engagement year, auditors might be more concerned with important clients than with other clients. In the case, I expect that the supply side effect from important clients is more pronounced in the initial audit year than other years. On the other hand, the discounts on initial audit fees would be pronounced for important clients if auditors are willing to attract important clients. As important clients bring a significant impact on auditor's revenue,

auditors are likely to yield pressures from important clients in the negotiation on initial audit pricing. Therefore, in the case, I expect that the demand side effect from important clients is more pronounced in the initial audit year than other years.

Considering these two conflicting views, I set the second research hypothesis in a null form:

Hypothesis 2: Audit fee is not related to client importance in the year of initial audit engagement.

As the third research topic, I investigate the effect of a type of auditors on the association between audit fees and client importance. I expect that the demand side effect is greater for Big 4 auditors than non-Big 4 auditors. When an audit failure occurs, Big 4 auditors face greater legal and reputational costs than non-Big 4 auditors (Dye 1993). Thus, Big 4 auditors would have greater incentive to resist the pressures from clients (if any) and to maintain auditor independence than non-Big 4 auditors would (Becker et al. 1998). In addition, I expect the smaller demand side effect for Big 4 auditors than that for non-Big 4 auditors. As Big 4 auditors generally audit more number of clients than non-Big 4 auditors, the influence of a specific client to the auditor could be smaller for Big 4 auditors.

Based on the above discussions, I propose the following third research hypothesis:

Hypothesis 3: The association between initial audit fee and client importance is different for Big 4 and non-Big 4 auditors.

The last hypothesis is about the effect of a macro economy condition on the association between audit fees and client importance. An economic recession could reduce client's profitability and thus introduce the downward audit fee pressure (Ettredge et al. 2014; Cheffers and Whalen 2011). Ettredge et al. (2014) find that audit fees decreased during the recent financial crisis period (2008-2009) and that the reduced audit fees are positively associated with financial misstatement. They argue that clients force auditors to share economic pain of the economic crisis, forcing to lower audit fees. PCAOB (2010) also states that the board is watchful for the potential detrimental effect of the fee pressure on audit quality in the crisis period. Thus, during the crisis period, I expect that the demand side effect is relatively greater than the other period. Based on these discussions, I propose the following fourth research hypothesis:

Hypothesis 4: The association between initial audit fee and client importance is different for the crisis and non-crisis period.

III. RESEARCH DESIGN

3.1 Measure of Client Importance

In this study, I measure office-level client importance based on a relative asset size of a client in an audit office. Client importance is often measured as a relative audit fee of a client to a total audit fee of other clients because large audit fee of any client induces a great auditor's economic dependence of an auditor on the client (Li 2009; Larcker and Richardson 2004; Chung and Kallapur 2003). However, the measure of client importance based on observed audit fee could be suffered from an endogeneity problem

in the research setting which is designed to investigate the effects of client importance on audit fee. As a result, the relative audit fee of the client may not well capture a client importance in auditor's client portfolio.

Instead, I use the relative size of total assets of the client as a measure of client importance. An asset size of a client positively affects audit fee paid by the client, however, audit fee paid by the client does not affect an asset size of the client. Prior studies also use the relative size of a single client as a measure of client importance (Chen et al. 2010; Huang et al. 2009; Catastella et al. 2004).

The effect of client importance on auditor's behaviors is more pronounced in an audit office-level, rather a national wide audit firm-level (Reynolds and Francis 2001; Wallman 1996). It is because that an individual office is a decision-making unit wherein an auditor contracts with clients. In addition, a single important client can represent a large portion of office-level revenues even when it does not of the firm-level revenues. Therefore, the office-level is the appropriate unit of analysis.

I measure office-level client importance as a relative total assets of a client to a sum of total assets of other clients in an audit office. Client importance of any client is expected to increase with the relative total assets of the client. The measure of client importance is defined as

$$CIMP_{ijt} = \frac{LnTA_{ijt}}{\sum_{k \neq i}^n LnTA_{kjt}}$$

, where for client i audited by an audit office j, an audit office j with n clients, and year t.

I will test whether $CIMP_AT_{ijt}$ affects audit pricing.

3.2 Model Specification

Prior literature of audit pricing has examined determinants of audit fees and suggested that that audit effort and audit risk largely determine audit fees (e.g., Choi et al. 2008; Ghosh and Lustgarten 2006; Bedard and Johnstone 2004; Menon and Williams 2001; O’Keefe et al. 1994; Fransis 1984; Simunic 1980). Following prior studies, I first estimated the benchmark model of audit fee determinants:

$$\begin{aligned}
 LNAF_{ijt} = & \alpha_0 + \alpha_1 ACH_{it} + \alpha_2 LNAT_{it} + \alpha_3 FOREIGN_{it} + \alpha_4 INVREC_{it} + \alpha_5 EXORD_{it} \\
 & + \alpha_6 LEV_{it} + \alpha_7 LOSS_{it} + \alpha_8 GCM_{it} + \alpha_9 BIG4_{ijt} + \alpha_{10} INDSPEC_{ijt} \\
 & + \alpha_{11} LNWAGE_{ijt} + \text{industry/ year fixed effects} + e_{ijt}
 \end{aligned}$$

where, for client i, audit office j, and year t. (1)

Then, I include CIMP and CIMP*ACH in equation (1) to demonstrate the effects of client importance on audit pricing for both an initial audit engagement and continuing audits.

$$\begin{aligned}
 LNAF_{ijt} = & \alpha + \beta_1 CIMP_{ijt} + \beta_2 ACH_{it} * CIMP_{ijt} + \gamma_1 ACH_{it} + \gamma_2 LNAT_{it} \\
 & + \gamma_3 FOREIGN_{it} + \gamma_4 INVREC_{it} + \gamma_5 EXORD_{it} + \gamma_6 LEV_{it} + \gamma_7 LOSS_{it} \\
 & + \gamma_8 GCM_{it} + \gamma_9 BIG4_{ijt} + \gamma_{10} INDSPEC_{ijt} + \gamma_{11} LNWAGE_{ijt} \\
 & + \text{industry/ year fixed effects}
 \end{aligned}$$

where, for client i, audit office J, and year t. (2)

The dependent variable, LNAF, is the natural logarithm of audit fee (in thousands of U.S. dollars). The variables of interest are $CIMP_{ijt}$ and $ACH_{it} * CIMP_{ijt}$. I differentiate the effect of client importance for the case of an initial engagement from that for the case of continuing audits by interacting the $CIMP_{ijt}$ and ACH_{it} . The coefficient of β_1 captures the effect of office-level client importance on audit fee for continuing audits. I expect that β_1 will be negative (positive) if the demand side effect is relatively greater (smaller) than the supply side effect. In other words, the positive β_1 suggests that auditors generally succumb to the fee pressure from important clients while negative β_1 suggests that auditors generally charge great fees to compensate for the increased audit efforts and high legal concerns when auditing important clients. Next, $CIMP*ACH$ captures the effect of client importance on initial audit fees. A negative (positive) coefficient on $CIMP*ACH$ indicates that audit fee for initial audit engagement is more (less) deeply discounted for more important clients than less important clients.

I control the effect of auditor change on audit fee. ACH is the indicator variable for auditor change. A negative (positive) coefficient on ACH indicates that given client importance is zero, audit fee decreases (increases) when an auditor is switched. I predict that the coefficient of γ_1 is either insignificant or positive as prior studies suggest the disappearance of the low-balling and the fee premium for an initial audit engagement in the post-SOX period (Ghosh and Pawlewicz 2009; Huang et al. 2009). I also control client's characteristics related to costs of audit, audit effort and audit risk, and auditor's characteristics. Clients' characteristics can affect either audit effort and/or auditor's legal

risk, and high audit effort and high litigation risk are priced in audit fees. LNTA represents a client size measured by the natural logarithm of total assets and is positively related to audit effort and auditor's legal concerns. Next three variables, FOREIGN, INVREC, and EXORD, are related to audit complexity and expected to be positively related to audit fees. A client's foreign operation extends a scope of audit works and increases audit effort. Therefore, the indicator variable for the existence of foreign operation in the year, FOREIGN, is expected to have a positive relation with audit fees. INVREC is a ratio of inventory and receivables to total assets, winsorized at 1%. INVREC is also positively related to audit fees since auditors need to put much effort to verify the economic substantial of large inventory and receivables given total assets. EXORD is an indicator variable for clients reporting extraordinary gains or losses in the year. Extraordinary gains or losses are related to not only a typical but also client-specific business operations. Thus, they are expected to increase audit effort and be positively related to audit fees. The auditors' perception of their clients' risk is also reflected in audit fee (Bell et al. 2001). Therefore, variables relating to clients' riskiness, LEV, LOSS, and GCM, are predicted to have positive relation with audit fees. LEV is the leverage ratio winsorized at one. High leverage ratio is related to high probability of insolvency and of the restriction on external financing. LOSS is an indicator variable for clients reporting net loss in the year, and GCM is an indicator variable for clients receiving a going-concern audit opinion in the year. Auditing clients either having poor performance or receiving an unclear opinion also increases auditors' legal and reputational risk. Remaining three variables, BIG4, INDSPEC, and LNWAGE, represent

auditor's characteristics. Prior studies report the audit fee premiums for large auditors (e.g. DeAngelo 1981; Simunic 1980). LNWAGE, the average annual salary of accountants and auditors in the metropolitan statistical area (MSA), is included to control the effect of the wage level in a local audit market. Finally, I include two-digit SIC codes industry and year indicators to control industry and year fixed effects.

IV. SAMPLE SELECTION AND DESCRIPTIVE STATISTICS

Details of the sample selection are described as follow. I construct the main dataset used in the analysis from two sources: Audit fee data comes from the Compustat and Worldscope, and firm fundamentals come from Compustat. I require non-missing data for audit fees, the measure of client importance, and all covariates. I exclude firms which belong to utilities (SIC codes 44–49) and financial industry (SIC codes 60–69) because the structure of audit fees of these two industries is significantly different from that of other industries (Simunic 1980; Palmrose 1986). I also do not include observations that have at least 10 firms in each two-digit SIC codes for a given year. I deal with the outliers of a ratio-variable: CIMP, INVREC and LEV are winsorized at the top and bottom 1% of each variable to exclude the effects of outliers. The sample period is 2004 to 2013, and the final sample consists of 33,916 audit office-year observations.

Panel A of Table 1 presents the descriptive statistics for variables. Panel B and Panel C describe the client firms' characteristics of Big 4 auditors and those of non-Big 4 auditors, respectively. Big 4 auditors and non-Big 4 auditors have a distinctive client portfolio in terms of size and operational characteristics. In addition, Big 4 auditors have

smaller portion of the new clients (3.27%) than non-Big 4 auditors do (16.5%). It is consistent with the finding of Ghosh and Lustgarten (2006) and suggests that the switching auditor is more frequent in the market of non-Big 4 auditors than that of Big 4 auditors. The mean (median) of client importance is 0.136 (0.0644) for Big 4 auditors and 0.269 (0.151) for non-Big 4 auditors, suggesting that Big 4 auditors have more diversified client portfolio than non-Big 4 auditors do. The smaller standard deviation of client importance for Big 4 auditors (0.204) than non-Big 4 auditors (0.558) also support the less diversified client portfolio of non-Big 4 auditors than that of Big 4 auditors. Therefore, the results of Panel B and Panel C suggest that the supply side effect would be greater for Big 4 auditors than for non-Big 4 auditors. Panel D and Panel E describe the client firms' characteristics in the crisis-period and the non-crisis period, respectively. The overall fee level is slightly lower in non-crisis period than in crisis-period. There are little differences in client firms' characteristics between the crisis period and the non-crisis period.

[Insert Table 1 about here]

Table 2 presents the covariance matrix for variables. The negative relation between LNAF and ACH indicates that audit fee for an audit engagement is generally lower than that for continuing audits. It suggests that if other variables affecting the audit costs are same, the audit fee for new auditors is lower than for incumbent auditors. The subsequent multivariate regression analysis will test whether the low-balling exists given that other things are controlled. The LNAF is also negatively related to CIMP. The negative relationship suggests that important clients reduce audit fees by exercising

great bargaining power. The subsequent multivariate regression analysis will also test whether the demand side effect exists given that other things are controlled. The univariate relationships between audit fees and other variables assumed to be related to audit fee are consistent with prior studies.

[Insert Table 2 about here]

V. EMPIRICAL RESULTS

5.1 Audit Fee Analysis

Table 3 presents the results of the ordinary least squares (OLS) regression of Eq. (2) for testing the effect of client importance on audit fee for an initial audit engagement. All reported t-values are on an adjusted basis using robust standard errors corrected for heteroskedasticity and firm-level clustering.

[Insert Table 3 about here]

First, I confirm the premium for an initial audit engagement in the post-SOX. The coefficient on ACH_{it} is significantly positive (0.0240) at the 10% level (t-value = 1.78), indicating that auditors charge higher audit fee for an initial audit engagement than for continuing audits, given client importance is zero. The premium for an initial audit is resulted from both the increase in the required effort for an initial audit and the increase in legal liability of auditors resulted from the enactment of SOX (Huang et al. 2009).

Next, the coefficient on $CIMP_{ijt}$ is negative (-0.0860) and significant at the 1% level (t-value = -5.40), suggesting that audit fee for continuing audits is declined as

office-level client importance increases. The result supports that an important client discounts fees of continuing audits by exercising its bargaining power (Casterella et al. 2004; Huang et al. 2007). Audit fee discount resulted from great bargaining power of an important client is more pronounced for an initial audit engagement than continuing audits. The coefficient on $ACH_{it} * CIMP_{ijt}$ is negative (-0.0031) and significant at the 1% level (t-value = -2.33), suggesting that the rate of discount for the initial audit from the continuing audits increases with office-level client importance. In terms of economic significance, audit fees for an initial audit engagement increase by 2.32% from those for subsequent audits when the client importance is the mean level (0.1850). As the client importance increases by one standard deviation (0.3820) from the mean level (0.1850), the premium for an initial audit engagement is 2.20%. The result suggests that a client having substantial economic significance on the revenue of an audit office discounts fee premium for an initial audit engagement in the post-SOX period. Even though an auditor is not likely to offer fee discount for an initial audit engagement in the post-SOX, it applies the practice of fee discounts selectively for an important. The empirical analysis supports that the demand side effect generally dominates the supply side effect in audit pricing of both the initial audit and the continuing audits.

The effects of control variables for auditee's risk, audit complexity, and auditor's characteristics are generally consistent with predictions. For brevity, I do not describe detailed discussions on the results of the control variables.

5.2 Sub-sample Analysis: Big 4 auditors versus non-Big 4 auditors

To identify the differential extent of the supply side effect and the demand side effect, I examine whether a type of auditors, Big 4 auditors versus Non-Big 4 auditors, influences the effects of client importance on initial fee discounts. Two types of auditors have the different levels of legal or reputational concerns and of supplier's bargaining power.

Table 4 reports the analysis for the differential effects of client importance on initial audit pricing by types of auditors.

[Insert Table 4 about here]

Consistent with the expectation, the supply side effect plays a role for Big 4 auditors while the demand side effect does for non-Big 4 auditors. In audit pricing for both an initial engagement and continuing audits, the negative relation between client importance and audit fee is significant only for non-Big 4 auditors. In contracts, I find no evidence of the effects of client importance on audit fees for Big 4 auditors. Big 4 auditors charge the premium for an initial audit but do not make a significant price discrimination for important clients. In a subsample of non-Big 4 auditors, the increase in client importance from median (0.1509) by one standard deviation (0.5584) is associated with the increase in the rate of discount for an initial audit engagement from 0.05% to 0.26%.

As Big 4 auditors have relatively great bargaining power due to their diversified client portfolio and face great legal and reputational costs of an audit failure, they increase audit efforts and charge high audit fees for an important client rather than yield to the fee pressure from the client. On the other hands, non-Big 4 auditors having

the significant economic dependence on each individual client and little reputational concerns are susceptible to fee pressures from an important client. In short, the demand side effect of client importance on audit fees is pronounced for non-Big 4 auditors while the supply side effect counteracts the demand side effect for Big 4 auditors who face high reputational and legal risk and have relatively great bargaining power.

5.3 Sub-period Analysis: Financial crisis period versus non-crisis period

To identify the differential extent of the demand side effect, I examine whether a macro-economic situation, crisis versus non-crisis period, influences the effects of client importance on initial fee discounts. Prior studies suggest that client firm's economic incentives to discount audit fee are greater in crisis period than in non-crisis period (Ettredge et al. 2014).

Table 5 reports the empirical results.

[Insert Table 5 about here]

First, the initial audit is at a discount in the 2008-2009 financial crisis period while it is at premium in the non-crisis period (2004-2007 and 2010-2013). The result is consistent with the downward fee pressure during the crisis period (Ettredge et al. 2014). Second, the demand side effect of client importance on initial audit pricing disappears in the crisis period even though the effect on continuing audits pricing still exists. Given that the low-balling practice reappears in the crisis period, the demand side effect of client importance on initial audit pricing is mitigated. It might be because auditors having already a thin margin resulted from the low-balling have little room to offer the

competitive price for an important client. Another possible reason is that auditors perceiving high risk of audit failure in crisis period do not yield the fee pressures from important clients when engaging the initial audit.

5.4 Additional Analysis

Sub-Period Analysis

As an additional analysis, I perform various sub-period analysis: pre-crisis (2004-2007), crisis (2008-2009), and post-crisis (2010-2013) periods to examine whether 2008-2009 financial crisis brought a structural change in the relationship between client importance and audit fee for an initial engagement.

[Insert Table 6 about here]

I find that the demand side effect in an initial audit pricing in the non-crisis period is driven by the post-crisis period. The coefficient of the interaction between auditor change and client importance is insignificant in the before-crisis period but significantly negative (-0.0042 at 1% of significant level) in the post-crisis period.

In addition, consistent with the result of Haung et al. (2009), the premium for an initial audit exists in the before-crisis period. However, the discount for an initial audit reappears in the crisis period and is prolonged in the post-crisis period. The reappearance of the low-balling practice is consistent with the result of Casterella et al. (2014).

The results of the sub-period analysis demonstrate that the supply side effect is more pronounced than the demand side effect immediately after the enactment of SOX,

however, the supply effect dominates over the demand side effect after the 2008-2009 financial crisis. The immediate response to SOX seems to effectively mitigate the demand side effect and/or strengthen the supply side effect in the initial audit pricing. However, the financial crisis which brought the overall fee pressures and the reappearance of the low-balling practice has reinforced the demand side effect of client importance on the initial audit pricing. Moreover, the coefficient of the interaction between auditor change and client importance is only negatively significant (-0.0042 at 1% level of significance) in the post-crisis sample, neither in the pre-crisis nor in the crisis period. It suggests that the overall fee pressures introduced by the crisis have been extended in the post-crisis period, especially from important clients at the year of an initial engagement.

Sub-sample Analysis by Sub-periods

I also test whether the different types of auditors have distinctive effects of client importance on initial fee discounts in different macro economy conditions.

[Insert Table 7 about here]

In pre-crisis period (2004-2007), both Big 4 and non-Big 4 auditors charge higher fee premium and discount audit fee for continuing audits. However, I do not find any evidence of the demand side effect on initial audit pricing in the period. Next, in the crisis period, both Big4 and non-Big 4 auditors discount initial audit fee, and only non-Big 4 auditors offer the discount of continuing audits for an important client. In the post-crisis period (2010-2013), only non-Big 4 auditors continue to low-ball. Interestingly,

the demand side effect of client importance on the initial audit pricing plays a role for both Big 4 and non-Big 4 auditors in the post-crisis period. The results suggest that even though the macro economy recovers from the financial crisis and the economic recession, the fee pressure from an important client continues and increases regardless of the types of auditors.

VI. CONCLUSIONS

This study demonstrates the effects of client importance on audit pricing. I find that important clients generally discount initial audit fees as well as continuing audit fees. The finding indicates that important clients with relatively great bargaining power pressure auditors to lower audit fees of an initial audit as well as continuing audits. This study is the first to reveal the fee pressures from an important client in an initial audit pricing. Prior studies only provide the evidence of the effects of client importance on the premium of industry-specialist auditors. In this study, I extend the discussion on the general audit pricing. In addition, the results suggest that both practitioners and regulators should be concerned about the potential adverse effects of low audit fees resulted from client firm's economic significance on the revenue of an audit office. Next, I find that the effect of client importance on initial audit pricing is sensitive to the types of auditors: the negative effect is only significant for non-Big 4 auditors. The finding implies that either small bargaining power or little legal and reputational risk make small auditors to yield the pressures from significant clients. I also find that the negative effect of client importance on initial audit pricing is only significant in the post-crisis period

while the negative effect on continuing audit pricings is significant in the pre-crisis, crisis, and post-crisis periods. The results suggest that the fee pressures from the economic recessions have been prolonged as a form of the strong demand side effect of important clients on initial audit pricing. In other words, it is possible that the effects of the strong legal environment resulted from the enactment of SOX is mitigated by the fee pressures of the financial crisis. Therefore, my study calls for the attention on the effects of the recent financial crisis on the structure of audit fees.

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APPENDIX: Description of Variables

Variable	Description
<u>Dependent Variables</u>	
<i>LNAF</i>	= audit fees measured by the natural logarithm of audit fees (in thousands of U.S. dollars)
<u>Test Variables</u>	
<i>CIMP</i>	= the total assets of client <i>i</i> divided the sum of total assets of other clients audited by the same auditor <i>j</i> at year <i>t</i> ;
<i>ACH*CIMP</i>	= Interacting variable for interaction between <i>CIMP</i> and <i>ACH</i> ;
<i>BIG4</i>	= indicator variable equal to one if the auditor is a Big 4 auditor and zero otherwise;
<i>CRISIS</i>	indicator variable equal to one if the fiscal year is 2008 and 2009 and zero otherwise (2004-2007 and 2010-2013);
<u>Control Variables</u>	
<i>ACH</i>	= indicator variable equal to one if the auditor is a new auditor in the current year and zero otherwise;
<i>EXORD</i>	= indicator variable equal to one if there is any extraordinary gains or losses and zero otherwise;
<i>FOREIGN</i>	= indicator variable equal to one if the firm pays any foreign income tax and zero otherwise;
<i>GCM</i>	= indicator variable equal to one if the firm receives a going-concern audit opinion and zero otherwise;
<i>INDSPE</i>	= indicator variable equal to one if the audit office has the largest market share in an industry (two-digit SIC code) in an MSA and zero otherwise;
<i>INVREC</i>	= sum of inventory and receivables divided by total assets;
<i>LEV</i>	= leverage, measured as total liabilities divided by total assets;
<i>LNTA</i>	= auditee size measured by the natural logarithm of total assets at the end of the fiscal year;
<i>LOSS</i>	= indicator variable equal to one if the auditee reports a net loss for the current fiscal year and zero otherwise;

Table 1. Descriptive Statistics for Variables

Panel A. Full sample (N = 33,916)									
	mean	sd	skewness	kurtosis	min	1Q	2Q	3Q	max
<i>LNAF</i>	6.256	1.539	-0.167	2.849	-1.599	5.179	6.377	7.317	11.45
<i>ACH</i>	0.0858	0.280	2.958	9.749	0	0	0	0	1
<i>CIMP</i>	0.185	0.382	1.853	13.25	-1.221	0.0379	0.0865	0.217	2.130
<i>LNAT</i>	5.056	2.717	-0.502	3.381	-4.962	3.401	5.273	6.953	11.54
<i>FOREIGN</i>	0.436	0.496	0.257	1.066	0	0	0	1	1
<i>INVEC</i>	0.257	0.201	0.774	2.979	0	0.0923	0.224	0.378	0.828
<i>EXORD</i>	0.0121	0.110	8.907	80.33	0	0	0	0	1
<i>LEV</i>	1.009	2.734	6.554	48.25	0.0341	0.292	0.494	0.716	22.61
<i>LOSS</i>	0.429	0.495	0.287	1.082	0	0	0	1	1
<i>GCM</i>	0.132	0.339	2.172	5.716	0	0	0	0	1
<i>BIG 4</i>	0.599	0.490	-0.404	1.164	0	0	1	1	1
<i>INSPEC</i>	0.405	0.491	0.386	1.149	0	0	0	1	1
<i>LNWAGE</i>	11.01	0.107	-0.0345	2.760	10.66	10.95	11.01	11.08	11.28
Panel B. Big 4 (N = 20,319)									
<i>LNAF</i>	7.118	1.086	0.237	3.389	2.534	6.407	7.055	7.783	11.45
<i>ACH</i>	0.0327	0.178	5.257	28.63	0	0	0	0	1
<i>CIMP</i>	0.136	0.204	4.066	25.28	-0.0222	0.034	0.0644	0.15	2.13
<i>LNAT</i>	6.529	1.848	-0.0107	2.967	-2.283	5.279	6.527	7.755	11.54
<i>FOREIGN</i>	0.598	0.49	-0.399	1.159	0	0	1	1	1
<i>INVEC</i>	0.248	0.177	0.831	3.403	0	0.11	0.223	0.348	0.828
<i>EXORD</i>	0.0158	0.125	7.754	61.12	0	0	0	0	1
<i>LEV</i>	0.53	0.433	17.23	667.7	0.0341	0.313	0.498	0.663	22.61
<i>LOSS</i>	0.312	0.463	0.812	1.66	0	0	0	1	1

<i>GCM</i>	0.0283	0.166	5.684	33.31	0	0	0	0	1
<i>BIG 4</i>									
<i>INSPEC</i>	0.559	0.497	-0.237	1.056	0	0	1	1	1
<i>LNWAGE</i>	11	0.102	-0.0698	2.931	10.68	10.95	11	11.06	11.28

Panel C. Non-Big 4 (N = 13,597)

<i>LNAF</i>	4.967	1.173	-0.0151	3.177	-1.599	4.190	4.967	5.730	9.313
<i>ACH</i>	0.165	0.371	1.803	4.252	0	0	0	0	1
<i>CIMP</i>	0.269	0.558	0.872	6.515	-1.221	0.0614	0.151	0.391	2.130
<i>LNAT</i>	2.855	2.287	-0.600	3.535	-4.962	1.632	3.114	4.407	10.37
<i>FOREIGN</i>	0.195	0.396	1.541	3.375	0	0	0	0	1
<i>INVEC</i>	0.271	0.233	0.630	2.380	0	0.0602	0.227	0.437	0.828
<i>EXORD</i>	0.00662	0.0811	12.17	149.1	0	0	0	0	1
<i>LEV</i>	1.724	4.185	4.021	18.90	0.0341	0.260	0.487	0.902	22.61
<i>LOSS</i>	0.605	0.489	-0.428	1.184	0	0	1	1	1
<i>GCM</i>	0.287	0.453	0.939	1.883	0	0	0	1	1
<i>BIG 4</i>									
<i>INSPEC</i>	0.176	0.381	1.705	3.907	0	0	0	0	1
<i>LNWAGE</i>	11.02	0.114	-0.0568	2.522	10.66	10.95	11.01	11.08	11.19

Panel D. Non-crisis (N = 23,722)

<i>LNAF</i>	6.22	1.553	-0.144	2.784	-0.673	5.124	6.339	7.299	11.41
<i>ACH</i>	0.0956	0.294	2.75	8.561	0	0	0	0	1
<i>CIMP</i>	0.181	0.383	1.915	13.53	-1.221	0.0357	0.0829	0.21	2.13
<i>LNAT</i>	5.009	2.702	-0.466	3.31	-4.962	3.343	5.206	6.897	11.54
<i>FOREIGN</i>	0.425	0.494	0.302	1.091	0	0	0	1	1
<i>INVEC</i>	0.26	0.203	0.767	2.947	0	0.0927	0.226	0.383	0.828

<i>EXORD</i>	0.0167	0.128	7.545	57.92	0	0	0	0	1
<i>LEV</i>	0.975	2.625	6.809	52.28	0.0341	0.288	0.491	0.71	22.61
<i>LOSS</i>	0.414	0.493	0.349	1.122	0	0	0	1	1
<i>GCM</i>	0.129	0.335	2.211	5.89	0	0	0	0	1
<i>BIG 4</i>	0.604	0.489	-0.426	1.181	0	0	1	1	1
<i>INSPEC</i>	0.404	0.491	0.393	1.155	0	0	0	1	1
<i>LNWAGE</i>	11.01	0.107	-0.0328	2.744	10.66	10.95	11.01	11.08	11.28

Panel E. Crisis (N = 10,194)

<i>LNAF</i>	6.339	1.503	-0.215	3.024	-1.599	5.335	6.458	7.347	11.45
<i>ACH</i>	0.0629	0.243	3.601	13.97	0	0	0	0	1
<i>CIMP</i>	0.194	0.381	1.71	12.62	-1.221	0.0438	0.0952	0.233	2.13
<i>LNAT</i>	5.167	2.751	-0.588	3.557	-4.605	3.528	5.427	7.097	11.3
<i>FOREIGN</i>	0.461	0.499	0.155	1.024	0	0	0	1	1
<i>INVEC</i>	0.251	0.196	0.786	3.046	0	0.0916	0.221	0.368	0.828
<i>EXORD</i>	0.00157	0.0396	25.18	635.1	0	0	0	0	1
<i>LEV</i>	1.086	2.972	6.047	40.85	0.0341	0.301	0.502	0.729	22.61
<i>LOSS</i>	0.464	0.499	0.144	1.021	0	0	0	1	1
<i>GCM</i>	0.139	0.346	2.083	5.341	0	0	0	0	1
<i>BIG 4</i>	0.588	0.492	-0.355	1.126	0	0	1	1	1
<i>INSPEC</i>	0.409	0.492	0.369	1.136	0	0	0	1	1
<i>LNWAGE</i>	11.01	0.107	-0.0384	2.798	10.66	10.95	11.01	11.08	11.19

Table 2. Pearson and Spearman Correlation Matrix

	<i>LNAF</i>	<i>ACH</i>	<i>CIMP</i>	<i>LNAT</i>	<i>FOREIGN</i>	<i>EXORD</i>	<i>INVREC</i>	<i>LEV</i>	<i>LOSS</i>	<i>GCM</i>	<i>BIG4</i>	<i>INSPEC</i>	<i>LNWAGE</i>
<i>LNAF</i>	1.000	-0.065	-0.014	0.488	0.326	0.065	-0.004	-0.064	-0.177	-0.141	0.289	0.197	0.081
		<.0001	0.016	<.0001	<.0001	<.0001	0.411	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
<i>ACH</i>	-0.171	1.000	0.046	-0.180	-0.100	-0.004	0.015	0.062	0.106	0.131	-0.232	-0.098	0.024
	<.0001		<.0001	<.0001	<.0001	0.441	0.006	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
<i>CIMP</i>	-0.022	0.062	1.000	0.043	-0.035	-0.011	0.071	-0.095	-0.045	-0.057	-0.168	0.032	-0.119
	<.0001	<.0001		<.0001	<.0001	0.056	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
<i>LNAT</i>	0.898	-0.181	0.084	1.000	0.518	0.059	0.017	-0.437	-0.465	-0.563	0.663	0.358	-0.037
	<.0001	<.0001	<.0001		<.0001	<.0001	0.001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
<i>FOREIGN</i>	0.606	-0.100	-0.010	0.535	1.000	0.026	0.101	-0.159	-0.293	-0.289	0.398	0.167	0.063
	<.0001	<.0001	0.078	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
<i>EXORD</i>	0.065	-0.004	-0.012	0.061	0.026	1.000	0.006	-0.012	-0.010	-0.011	0.041	0.026	-0.001
	<.0001	0.441	0.041	<.0001	<.0001		0.308	0.031	0.075	0.049	<.0001	<.0001	0.872
<i>INVREC</i>	0.110	-0.003	0.128	0.068	0.176	0.011	1.000	-0.051	-0.153	-0.098	-0.057	0.013	0.013
	<.0001	0.588	<.0001	<.0001	<.0001	0.035		<.0001	<.0001	<.0001	<.0001	0.018	0.019
<i>LEV</i>	0.035	0.041	-0.003	0.016	-0.065	0.031	0.067	1.000	0.204	0.461	-0.214	-0.095	0.009
	<.0001	<.0001	0.538	0.004	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	0.110
<i>LOSS</i>	-0.363	0.106	-0.113	-0.467	-0.293	-0.010	-0.202	0.191	1.000	0.387	-0.290	-0.177	0.072
	<.0001	<.0001	<.0001	<.0001	<.0001	0.075	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001
<i>GCM</i>	-0.424	0.131	-0.110	-0.487	-0.289	-0.011	-0.156	0.362	0.387	1.000	-0.375	-0.163	0.033
	<.0001	<.0001	<.0001	<.0001	<.0001	0.049	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001
<i>BIG4</i>	0.702	-0.232	-0.251	0.686	0.398	0.041	-0.003	-0.044	-0.290	-0.375	1.000	0.383	-0.083
	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.625	<.0001	<.0001	<.0001		<.0001	<.0001
<i>INSPEC</i>	0.349	-0.098	0.039	0.373	0.167	0.026	0.039	0.037	-0.177	-0.163	0.383	1.000	-0.294
	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001		<.0001
<i>LNWAGE</i>	0.044	0.024	-0.228	-0.049	0.069	-0.000	-0.008	-0.019	0.075	0.033	-0.076	-0.282	1.000
	<.0001	<.0001	<.0001	<.0001	<.0001	0.933	0.160	0.000	<.0001	<.0001	<.0001	<.0001	

Table 3. The General relationship between auditor change and initial audit fees

VARIABLES	ACH	CIMP	ACH, CIMP	ACH*CIMP
<i>ACH</i>	0.0240* (1.775)		0.0230 (1.611)	0.0235* (1.646)
<i>ACH*CIMP</i>				-0.0031** (-2.334)
<i>CIMP</i>		-0.0860*** (-5.398)	-0.0864*** (-5.418)	-0.0845*** (-5.261)
<i>LNTA</i>	0.4694*** (98.449)	0.4694*** (96.230)	0.4694*** (96.221)	0.4694*** (96.240)
<i>FOREIGN</i>	0.3708*** (22.437)	0.3635*** (21.813)	0.3633*** (21.799)	0.3634*** (21.809)
<i>INVEC</i>	0.2889*** (8.167)	0.3054*** (8.380)	0.3049*** (8.370)	0.3046*** (8.360)
<i>EXORD</i>	0.1142*** (3.195)	0.1107*** (2.952)	0.1111*** (2.960)	0.1111*** (2.959)
<i>LEV</i>	0.0554*** (19.977)	0.0548*** (19.033)	0.0548*** (19.032)	0.0547*** (19.044)
<i>LOSS</i>	0.2049*** (17.496)	0.1971*** (16.635)	0.1967*** (16.602)	0.1967*** (16.605)
<i>GCM</i>	0.1706*** (8.114)	0.1602*** (7.433)	0.1594*** (7.395)	0.1593*** (7.394)
<i>BIG 4</i>	0.4620*** (25.003)	0.4197*** (22.206)	0.4224*** (22.191)	0.4226*** (22.202)
<i>INSPEC</i>	0.0796*** (6.099)	0.0903*** (6.811)	0.0904*** (6.816)	0.0902*** (6.807)
<i>LNWAGE</i>	1.1434*** (16.960)	1.1413*** (16.331)	1.1410*** (16.328)	1.1421*** (16.347)
<i>Intercept</i>	-9.7813*** (-13.201)	-9.2900*** (-11.933)	-9.2899*** (-11.934)	-9.3023*** (-11.952)
<i>Observations</i>	33,855	31,543	31,543	31,543
<i>R-squared</i>	0.858	0.855	0.855	0.855
<i>Industry/year Indicators</i>	YES	YES	YES	YES
<i>Clustering by</i>	YES	YES	YES	YES

**Table 4. The sub-sample
(Big 4 versus non-Big 4 auditors) analysis**

Sample	Full Sample	Big 4 Sample	Non-big 4 Sample
<i>ACH</i>	0.0235* (1.646)	0.0791** (2.576)	0.0165 (0.944)
<i>ACH*CIMP</i>	-0.0031** (-2.334)	-0.0467 (-0.374)	-0.0036*** (-2.819)
<i>CIMP</i>	-0.0845*** (-5.261)	-0.0660 (-1.599)	-0.0816*** (-4.679)
<i>LNTA</i>	0.4694*** (96.240)	0.4681*** (74.085)	0.4658*** (63.327)
<i>FOREIGN</i>	0.3634*** (21.809)	0.3502*** (17.326)	0.3841*** (13.426)
<i>INVEC</i>	0.3046*** (8.360)	0.4617*** (8.356)	0.1102** (2.368)
<i>EXORD</i>	0.1111*** (2.959)	0.1575*** (4.353)	-0.1212 (-1.073)
<i>LEV</i>	0.0547*** (19.044)	0.1056*** (6.815)	0.0540*** (17.568)
<i>LOSS</i>	0.1967*** (16.605)	0.1844*** (12.444)	0.2018*** (10.592)
<i>GCO</i>	0.1593*** (7.394)	0.2881*** (8.505)	0.1115*** (4.102)
<i>BIG 4</i>	0.4226*** (22.202)		
<i>INSPEC</i>	0.0902*** (6.807)	0.1149*** (7.772)	0.0119 (0.420)
<i>LNWAGE</i>	1.1421*** (16.347)	1.2998*** (13.805)	0.8691*** (8.429)
<i>Intercept</i>	-9.3023*** (-11.952)	-10.6072*** (-10.095)	-6.4035*** (-5.600)
<i>Observations</i>	31,543	19,878	11,665
<i>R-squared</i>	0.855	0.754	0.719
<i>Industry/year Indicators</i>	YES	YES	YES
<i>Clustering by</i>	YES	YES	YES

Table 5. The sub-period (crisis versus non-crisis) analysis

Sample	Full (2004-2013)	Non-crisis period (2004-2007 and 2010-2013)	Crisis period (2008-2009)
<i>ACH</i>	0.0235* (1.65)	0.0541*** (3.31)	-0.0769** (-2.54)
<i>ACH*CIMP</i>	-0.0031** (-2.33)	-0.0039*** (-3.58)	0.0037 (0.86)
<i>CIMP</i>	-0.0845*** (-5.26)	-0.0835*** (-4.92)	-0.0902*** (-3.60)
<i>LNTA</i>	0.4694*** (96.24)	0.4752*** (96.66)	0.4563*** (75.20)
<i>FOREIGN</i>	0.3634*** (21.81)	0.3629*** (21.40)	0.3634*** (17.58)
<i>INVEC</i>	0.3046*** (8.36)	0.3019*** (8.03)	0.3226*** (6.84)
<i>EXORD</i>	0.1111*** (2.96)	0.0949*** (2.58)	0.2288 (1.33)
<i>LEV</i>	0.0547*** (19.04)	0.0528*** (16.67)	0.0572*** (14.64)
<i>LOSS</i>	0.1967*** (16.61)	0.2172*** (16.32)	0.1589*** (10.05)
<i>GCO</i>	0.1593*** (7.39)	0.1643*** (6.95)	0.1492*** (4.76)
<i>BIG 4</i>	0.4226*** (22.20)	0.4260*** (21.84)	0.4223*** (17.41)
<i>INSPEC</i>	0.0902*** (6.81)	0.1060*** (7.82)	0.0545*** (3.06)
<i>LNWAGE</i>	1.1421*** (16.35)	1.1572*** (16.47)	1.1019*** (12.40)
<i>Intercept</i>	-9.4404*** (-12.13)	-9.5742*** (-12.21)	-9.2138*** (-9.44)
<i>Observations</i>	31,543	22,069	9,474
<i>R-squared</i>	0.855	0.851	0.867
<i>Industry/year Indicators</i>	Included	Included	Included
<i>Clustering by</i>	Client	Client	Client

**Table 6. The additional analysis 1
(pre-, crisis, and post-crisis periods)**

Sample	Full (2004-2013)	Pre-crisis period (2004-2007)	Crisis period (2008-2009)	Post-crisis period (2010-2013)
<i>ACH</i>	0.0235* (1.65)	0.0814*** (4.67)	-0.0769** (-2.54)	-0.1165*** (-3.08)
<i>ACH*CIMP</i>	-0.0031** (-2.33)	-0.0012 (-0.30)	0.0037 (0.86)	-0.0042*** (-4.62)
<i>CIMP</i>	-0.0845*** (-5.26)	-0.1029*** (-4.80)	-0.0902*** (-3.60)	-0.0485** (-2.25)
<i>LNTA</i>	0.4694*** (96.24)	0.4833*** (90.03)	0.4563*** (75.20)	0.4564*** (71.33)
<i>FOREIGN</i>	0.3634*** (21.81)	0.3713*** (19.77)	0.3634*** (17.58)	0.3394*** (16.00)
<i>INVEC</i>	0.3046*** (8.36)	0.2917*** (7.08)	0.3226*** (6.84)	0.3378*** (6.88)
<i>EXORD</i>	0.1111*** (2.96)	0.0806** (2.20)	0.2288 (1.33)	0.1082 (0.48)
<i>LEV</i>	0.0547*** (19.04)	0.0491*** (12.72)	0.0572*** (14.64)	0.0562*** (13.74)
<i>LOSS</i>	0.1967*** (16.61)	0.2373*** (14.90)	0.1589*** (10.05)	0.1580*** (9.44)
<i>GCO</i>	0.1593*** (7.39)	0.1686*** (6.20)	0.1492*** (4.76)	0.1647*** (4.57)
<i>BIG 4</i>	0.4226*** (22.20)	0.4191*** (18.99)	0.4223*** (17.41)	0.4383*** (17.58)
<i>INSPEC</i>	0.0902*** (6.81)	0.1161*** (7.46)	0.0545*** (3.06)	0.0777*** (4.39)
<i>LNWAGE</i>	1.1421*** (16.35)	1.1514*** (14.98)	1.1019*** (12.40)	1.1587*** (12.59)
<i>Intercept</i>	-9.4404*** (-12.13)	-9.8451*** (-11.49)	-9.2138*** (-9.44)	-9.1435*** (-8.92)
<i>Observations</i>	31,543	16,140	9,474	8,912
<i>R-squared</i>	0.855	0.836	0.867	0.886
<i>Industry/year</i>	Included	Included	Included	Included
<i>Indicators</i>				
<i>Clustering by</i>	Client	Client	Client	Client

Table 7. The additional analysis 2 (The sub-period by sub-sample analysis)

Sample	Pre-crisis period (2004-2007)		Crisis period (2008-2009)		Post-crisis period (2010-2013)	
	(1) Big4	(2) Non-Big4	(3) Big4	(4) Non-Big4	(5) Big4	(6) Non-Big4
<i>ACH</i>	0.1428*** (3.90)	0.0549** (2.55)	-0.1206** (-2.08)	-0.0676* (-1.86)	-0.1141 (-1.29)	-0.0878** (-2.04)
<i>ACH*CIMP</i>	-0.0344 (-0.21)	-0.0015 (-0.39)	0.2298 (1.27)	0.0033 (0.82)	-0.4367*** (-2.78)	-0.0046*** (-6.15)
<i>CIMP</i>	-0.1322*** (-2.64)	-0.0890*** (-3.71)	-0.0437 (-0.80)	-0.0940*** (-3.37)	0.0238 (0.51)	-0.0596** (-2.49)
<i>LNTA</i>	0.4814*** (70.32)	0.4820*** (54.94)	0.4518*** (61.14)	0.4558*** (44.55)	0.4620*** (59.21)	0.4392*** (39.54)
<i>FOREIGN</i>	0.3565*** (16.52)	0.4095*** (11.05)	0.3382*** (13.33)	0.3832*** (10.68)	0.3307*** (12.45)	0.3457*** (9.78)
<i>INVEC</i>	0.4094*** (6.94)	0.1215** (2.11)	0.5712*** (8.33)	0.0813 (1.26)	0.5214*** (7.13)	0.1348** (2.05)
<i>EXORD</i>	0.1330*** (3.79)	-0.1461 (-1.18)	0.4987*** (3.37)	-0.1442 (-0.62)	0.2991 (1.33)	-0.1485 (-0.53)
<i>LEV</i>	0.0806***	0.0498***	0.1212***	0.0561***	0.1199***	0.0529***

	(4.09)	(12.23)	(5.69)	(13.15)	(4.52)	(11.77)
<i>LOSS</i>	0.2284***	0.2415***	0.1239***	0.1874***	0.1742***	0.1160***
	(11.50)	(9.43)	(6.38)	(6.94)	(7.92)	(4.36)
<i>GCO</i>	0.3092***	0.1252***	0.2233***	0.1058**	0.3393***	0.1010**
	(6.64)	(3.69)	(4.57)	(2.54)	(5.83)	(2.23)
<i>BIG 4</i>						
<i>INSPEC</i>	0.1356***	0.0551	0.0860***	-0.0415	0.0957***	-0.0089
	(8.03)	(1.50)	(4.36)	(-1.06)	(4.81)	(-0.23)
<i>LNWAGE</i>	1.3112***	0.8439***	1.2744***	0.8265***	1.2759***	0.9848***
	(13.29)	(6.78)	(11.14)	(5.90)	(10.69)	(6.76)
<i>Intercept</i>	-10.8987***	-6.6273***	-10.1264***	-5.6785***	-10.1738***	-7.2805***
	(-10.09)	(-4.77)	(-7.98)	(-3.68)	(-7.63)	(-4.54)
<i>Observations</i>	10,200	5,940	5,862	3,612	5,689	3,223
<i>R-squared</i>	0.731	0.692	0.770	0.734	0.787	0.769
<i>Industry/year Indicators</i>	Included	Included	Included	Included	Included	Included
<i>Clustering by</i>	Client	Client	Client	Client	Client	Client

국문초록

본 연구는 회계법인 오피스 수준에서 측정한 고객 중요도가 초도 감사 보수에 미치는 영향에 대하여 연구하였다. 본 연구는 미국의 사베인-옥슬리 법안 적용 이후의 시기, 즉 2004년부터 2013년, 의 표본을 바탕으로 연구를 수행하였다. 그 결과 고객들은 일반적으로 초도 감사에 대한 프리미엄을 지불하였으나 고객중요도가 증가할수록 해당 프리미엄이 감소하는 것으로 나타났다. 이는 중요한 고객들이 상대적으로 큰 협상능력을 이용하여 초도 감사 프리미엄을 할인한다는 것을 의미한다. 다음으로 본 연구는 고객 중요도가 초도 감사 보수에 미치는 영향이 1) 감사인의 종류에 따라 그리고 2) 거시 경제 상황에 따라 다른지 살펴보았다. 먼저 중요한 고객이 초도 감사 보수를 할인하는 현상이 소형회계법인에 국한되는 현상임이 밝혀졌다. 이는 소형회계법인이 상대적으로 적은 협상능력을 가지고 있기 때문이거나 혹은 낮은 수준의 법적 그리고 평판 위험을 가지고 있기 때문인 것으로 보인다. 다음으로 중요 고객이 초도 감사 보수를 할인하는 현상은 금융위기 이후 (2010-2013)에만 발견되었다. 이러한 발견은 금융위기 기간 동안 발생했던 감사 보수 할인 압력이 금융위기 이후에도 지속된다는 것을 시사한다.

주요어: 감사보수, 고객중요도, 감사인-고객사 관계, 경제적 의존도, 법적/평판적 비용, 대형회계법인, 금융위기

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