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THE EFFECTS OF NON-AUDIT SERVICES ON THE VALUE-RELEVANCE OF ACCOUNTING NUMBERS – THE ROLE OF AUDITOR SPECIALIZATION

This study examines whether the knowledge spillover effect of non-audit services provided by the industry auditors will dominate the independence impairment, therefore have positive influence on value-relevance of earnings component. The results indicate that the listed firms with high non-audit fees have negative (positive) influence on the value-relevance of earning information (equity book value), yet, the negative (positive) impact decreases in the case of industry auditors. This study demonstrates some diagnostic checks and evidences the results robust to various specifications.

Keywords: *non-audit fees; value-relevance; earnings; equity book value; auditor specialization.*

Чінь-Лунь Чень

ВПЛИВ НЕАУДИТОРСЬКИХ ПОСЛУГ НА ПОКАЗНИКИ АУДИТУ: РОЛЬ СПЕЦІАЛІЗАЦІЇ АУДИТОРА

У статті досліджується, чи впливає інформація, отримана під час надання неаудиторських послуг промисловими аудиторами, на незалежність аудиту. Результати вказують на те, що висока вартість неаудиторських послуг аудиторських фірм суттєво (позитивно або негативно) впливає на результати аудиту (та балансову вартість акцій підприємств у подальшому), однак цей вплив є суттєво меншим для промислових аудиторів вузької спеціалізації. Результати аналізу перевірено декількома способами, і вказана тенденція зберігає свою стійкість за різних змінних.

Ключові слова: *неаудиторські послуги; якість висновків; заробітки; балансова вартість акцій; спеціалізація аудитора.*

Форм. 4. Табл. 2. Літ. 23.

Чинь-Лунь Чень

ВЛИЯНИЕ НЕАУДИТОРСКИХ УСЛУГ НА ПОКАЗАТЕЛИ АУДИТА: РОЛЬ СПЕЦИАЛИЗАЦИИ АУДИТОРА

В статье исследуется, влияет ли информация, полученная в процессе предоставления неаудиторских услуг промышленными аудиторами, на независимость аудита. Результаты указывают, что высокие расценки на неаудиторские услуги аудиторских фирм существенно (позитивно или негативно) влияют на результаты аудита (и балансовую стоимость акций предприятий в дальнейшем), однако это влияние существенно меньше для промышленных аудиторов узкой специализации. Результаты анализа проверены несколькими способами, и данная тенденция сохраняет устойчивость при различных переменных.

Ключевые слова: *неаудиторские услуги; качество выводов; заработки; балансовая стоимость акций; специализация аудитора.*

1. Introduction. Prior studies focusing on the value relevance of accounting numbers have demonstrated that both income statement and balance sheet information play roles in determining equity values (e.g., Collins et al., 1997; Barth et al.,

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1998; and Ou & Sepe, 2002). Recently, a couple of studies aimed at specifying the conditions under which equity book value or earnings would be assigned a relatively higher weight in explaining stock values or would explain a relatively higher proportion of the market value of an equity (e.g., Burgstahler & Dichev, 1997; Ou & Sepe, 2002). Extant literature suggests the provision of non-audit services by firm's auditor could lower the perceived quality of its reported earnings. Whether purchasing non-audit services from an auditor makes the value relevance of earnings and equity book values change in explaining stock prices is called for examination.

The dependency hypothesis proposes the possibility that auditor quality could be decreased because a larger amount of non-audit fees could cause auditors become more economically dependent on their clients, thus compromise their independence. Concurrently, the increased economic dependence enhances the auditor's incentives to acquiesce the client pressure to report noisy and positively biased earnings (Frankel et al., 2002). However, there are evidences that the effects of non-audit services on audit quality are not readily apparent without jointly accounting for the effects of auditor specialization (Francis & Ke, 2006). The industry auditors are more likely to be concerned about reputation losses and litigation exposure, and to benefit from knowledge spillovers from the provision of non-audit services (Lim & Tan, 2007). Thus, there are two co-existent effects, dependency vs. knowledge spillover, of non-audit services as far as the stock valuation is concerned. Under dependency hypothesis, the perceived bias and noise in reported earnings reduces the value relevance of earnings (Gul et al., 2006). The knowledge spillover hypothesis suggests the provision of non-audit services from auditor specialization enhances the earnings quality and its value-relevance (Lim & Tan, 2007). This study examines whether the relation between the provision of non-audit services and the impairment of auditor quality (earnings quality) is conditional on auditor specialization.

The results indicate that the value relevance of earnings decreases and that of equity book value increases for the firms with higher non-audit fee ratio. Yet, the decreasing value relevance of earnings and the increasing value relevance of equity book value for the firms with higher non-audit fee ratio are effectively mitigated in the case of industry auditors. This examination is important because the test provides some first-hand evidence on the potential economic consequences vs. knowledge spillover effect of non-audit services. In terms of the value relevance on financial statement components, this study provides insights into the quality of the accounting numbers to the market after Taiwanese audit and non-audit fee disclosure regulation has been enforced. Finally, extant studies present conflicting results on the effects of non-audit service provision on perceived earnings quality. This study contributes to the literature on the effect of non-audit service provision on accounting information may be conditional on auditor specialization.

This paper is organized as follows: Section II describes the prior studies and develops the hypothesis. Section III presents the empirical design. Section IV presents the empirical results and the robustness test. Section V concludes the study.

2. Related Research and Hypothesis

2.1. Related Research. Performing both audit and non-audit services for the same client provokes enormous debate on the relationship between the provision of non-audit services and the perceived auditor independence. One cited reason is the

providing of non-audit services may increase economic bonding with clients and gives auditors incentives to compromise their independence (Niu, 2008). Another view argues that provision of non-audit services complement the audit function by providing more information about a client, which in turn increases the quality of audit. Thus, non-audit services provide specific economic rents because knowledge spillover could reduce audit related costs and increase auditing efficiency (Cho et al., 2006; Joe & Vandervelde, 2007). Several recent efforts examine the relationship between audit fees (and/or non-audit fees) and auditor independence (Frankel et al., 2002; Chung & Kallapur, 2003). However, there are disagreements in these studies as to whether auditor independence is a function of non-audit fees ratio or client importance then entails further examination.

Whether is auditors' independence is impaired when they provide non-audit services is a function of the net balance of the economic dependency and the mitigating factors. Auditors with industry specialization who have invested in developing a reputation for performing audits in particular industries would be particularly concerned about avoiding reputation damage through litigation exposure, in turn, are less likely to cave in to client pressures. Consistent with this argument, prior study shows that industry auditors are more likely to comply with auditing standards (O' Keefe et al., 1994), have clients that are less likely to be associated with SEC enforcement actions (Carcello & Nagy, 2004), lower discretionary accruals, and higher earnings response coefficients (Balsam et al., 2003; Krishnan, 2003). Thus, it is worth to examine whether the earnings effect of providing non-audit services is conditioned on auditor specialization.

The value of a firm can be expressed as a function of both earnings and equity book value, yet, differential model specifications exist in the literature. Ohlson (1995) expresses stock price as a linear function of equity book value and abnormal earnings. Burgstahler & Dichev (1997) develop an option-style valuation model based on the prediction that equity value is a convex function of both earnings and book value. In more realistic settings with market imperfections, accounting systems can provide information about equity book value and earnings as complementary, rather than redundant, components of equity value (Burgstahler & Dichev, 1997; Barth et al., 1998; Ou & Sepe, 2002). If non-audit services are perceived to impair (enhance) the audit independence (audit efficiency) and, thus, decrease (increase) earnings quality of firms disclosing non-audit fees, these perceptions may induce the value-relevance of earnings for firms disclosing non-audit fees to be decreased (increased). This study follows the value relevance approach, which is based on the Ohlson (1995) model that can demonstrate how specific accounting numbers are summarized in stock price. Since value relevance approach doesn't either require control other events or identify precise event date to match news event related to the non-audit fee data disclosure (Cho et al., 2006), this approach enables us to examine the fundamental value of non-audit services by showing how the non-audit fees conditioned on auditor specialization influence the value relevance of accounting numbers.

2.2. Hypotheses. Prior studies suggest that the relationship between auditor economic incentives and the propensity to engage strategic behaviors is affected by litigious environment. Given above two competing hypotheses (i.e., dependency and knowledge spillover), it is expected that auditors providing more non-audit services

are less likely to maintain their independence in an environment where the litigation cost is lower. The institutional incentives for auditors to remain independent in audit engagement with high non-audit fees are likely to be less in Taiwan (Duh et al., 2009). Thus, without higher litigation costs to reduce the economic dependency, this study conjectures the economic incentives will effect in engaging audit contracts.

Earnings persistence has been identified as a major determinant influencing the magnitude of the earnings-return relationship. The dependency hypothesis suggests that providing non-audit services increases auditor's incentives to acquiesce client pressure to report noisy and positively biased earnings data. The perceived bias and noise in reported earnings increase the information risk associated with them which, in turn, reduces the value relevance of earnings (Gul et al., 2006). As noted by Feltham & Pae (2000), "noisy" earnings garble rather than improve the information value of the accounting numbers results in lower earnings quality and its value-relevance. This study conjectures current earnings have less value relevance in determining stock prices of the firms with higher non-audit fee ratio. Concurrently, if a firm's current earnings are not perceived to be a good indicator of future earnings, the market participants will rely more heavily on equity book value for guidance in equity valuation (Burgstahler & Dichev, 1997). This study conjectures that equity book value will play a relatively more important role in explaining stock prices of the firms with higher non-audit fee ratio because their earnings have poor quality and the investors must rely more heavily on equity book value in setting stock prices. The first hypothesis is developed as follows:

H1: Ceteris paribus, the value relevance of current earnings (equity book value) decreases (increases) for the firms with higher non-audit fee ratio compared to the firms with lower non-audit fee ratio.

Alternatively, the incremental knowledge spillover generated from providing non-audit services is likely to be associated with auditor specialization. Audit firms have moved to a business-risk audit methodology centered on a good understanding of a client's risk and operations. Knowledge spillover from provision of non-audit services can enhance the auditor's understanding of the client and its risks (Solomon et al., 1999; Owhoso et al., 2002). This suggests that industry auditors (vs. non-industry specialists) have the knowledge both to more effectively perform the non-audit services for a client from a specialized industry as well as to acquire and leverage on the knowledge-spillover from performing non-audit services. Two auditors may have similar incentives to meet clients' preferences, but the overall quality of an auditor with greater industry specialization would still be higher than the one without (Lim & Tan, 2007). This study conjectures that the earnings variable is less value-relevant in determining stock price in the presence of the firms with higher non-audit fees ratio in the case of non-industry auditors, yet, effectively mitigated in case of industry auditors. Thus, the second hypothesis is as follows:

H2: Ceteris paribus, the decreasing (increasing) value relevance of current earnings (equity book value) for the firms with higher non-audit fee ratio are effectively mitigated in the case of industry auditors.

3. Research Design

3.1. Data and Samples. This study chooses 2002-2007 as the sample period. The year 2002 is chosen as the beginning year because then FSC in Taiwan has mandated

disclosure of fees for both audit and non-audit services under some conditions in annual reports. Choosing the year 2007 as the ending year is dictated by data availability and the financial tsunami in 2008. The sample firms are publicly traded companies listed on the Taiwan Security Exchange Corporation (TSE). The fact that only TSE-listed firms are considered is due to the feasibility of collecting the reliable data. The data are retrieved from the Taiwan Economic Journal Database. This study excludes financial-related firms for regulation characteristics and the firms whose accounting period was not ended on December 31 for consistency. This study also deletes glass-ceramic, paper, automobile, sails, and other industries because of too few listed firms for estimating the auditor specialization and the firms whose data were deficient or unavailable. The selection procedure was finalized with the sample of 1,114 firm-year observations.

3.2. Model and Variable Measurement. This study expresses stock price as a function of earnings and equity book value (Barth et al., 1998; Ou & Sepe, 2002; Arce & Mora, 2002). We incorporate 2 interaction terms, BV*RATIO and EPS*RATIO, into the regression to examine the hypotheses. Becker et al. (1998) suggest that firm size might surrogate numerous omitted variables and the firms that require larger amounts of non-audit services are also relatively more complex which may make the value relevance of earnings lower. We add client's firm size variable (SIZE) to control the effect of this possible endogeneity and potential omitted variables problem. Barth et al. (1998) find that the relative importance of equity book value increases and earnings decreases with the degree of financial difficulty experienced by a firm. This study incorporates leverage variable (denoted as LEV) into model to control the firms with unhealthy condition. We incorporate a dummy variable for the negative reported earnings listed firms (LOSS) into the model to enhance the model specification. Naturally, this study includes the dummy for various calendar years to control the year effects on stock prices. The empirical model is presented as follows:

$$P_{it} = \alpha_0 + \beta_1 EPS_{it} + \beta_2 BV_{it} + \beta_3 RATIO_{it} + \beta_4 EPS_{it} \times RATIO_{it} + \beta_5 BV_{it} \times RATIO_{it} + \beta_6 SIZE_{it} + \beta_7 LEV_{it} + \beta_8 LOSS_{it} + \sum_{i=9}^{13} \beta_i * D\_YEAR_t + \varepsilon_{it} \quad (1)$$

where:

P: client firm's stock price per share at the end of fiscal year, which follows most value relevance related studies (Ou & Sepe, 2002; Arce & Mora, 2002; Cho et al., 2006).

EPS: client earnings before extraordinary items per share for a firm of fiscal year. Basing on Ohlson (1995), we expect the coefficient of EPS to be positive.

BV: client equity book value per share for a firm at the end of fiscal year. For the same reason, we expect the coefficient of BV to be positive.

RATIO: non-audit fees to the total fee ratio of a firm in the fiscal year to proxy non-audit services which follows most prior studies (Frankel et al., 2002; Larker & Richardson, 2004; Cho et al., 2006).

SIZE: client firm size, proxied by the natural logarithm of total assets.

LEV: client firm leverage, measured as debt to capital ratio.

LOSS: a dummy variable for the negative reported earnings listed firms denoted as 1 if a firm has negative reported earnings, and otherwise 0.

D_YEAR: dummy variable for fiscal year.

ε: the error term.

According to the hypothesis H1, the coefficient of β_4 represents the incremental value relevance of EPS for the firms with higher non-audit fee ratio and will be negative to reflect the noisy earnings. Concurrently, the coefficient of β_5 represents the incremental value relevance of BV for the clients with higher non-audit fee ratio and will be positive to reflect equity book value will play a relatively more important role in explaining stock prices because reported earnings has poor quality.

To examine the influences of non-audit services provided by the industry auditors on earnings and equity book value, this study estimates Equation (2), which is a revision of Equation (1).

$$\begin{aligned} P_{it} = {} & \alpha_0 + \beta_1 EPS_{it} + \beta_2 BV_{it} + \beta_3 RATIO_{it} + \beta_4 EXP_{it} + \beta_5 RATIO_{it} \times EXP_{it} \\ & + \beta_6 EPS_{it} \times RATIO_{it} + \beta_7 BV_{it} \times RATIO_{it} + \beta_8 EPS_{it} \times RATIO_{it} \times EXP_{it} \\ & + \beta_9 BV_{it} \times RATIO_{it} \times EXP_{it} + \beta_{10} SIZE_{it} + \beta_{11} LEV_{it} + \beta_{12} LOSS_{it} \\ & + \sum_{i=13}^{17} \beta_i * D\_YEAR_t + \varepsilon_{it} \end{aligned} \quad (2)$$

The definitions of *P, EPS, BV, RATIO*, and *D_YEAR* are the same as in Equation (1). The variable EXP represents auditor specialization using a continuous measure of market share, which measured as industry market share for auditors in a given industry for a particular year. This study also uses an alternative measure of audit specialization: designate any auditor with a market share of 20% or more as a specialist (Balsam et al., 2003). This study uses client's total assets to estimate industry market share of an auditor (Krishnan, 2003) and defines as follows:

$$MSA_{ik} = \frac{\sum_{j=1}^{J_{ik}} Assets_{ijk}}{\sum_{i=1}^{I_k} \sum_{j=1}^{J_{ik}} Assets_{ijk}} \quad (3)$$

The numerator is the sum of the total assets of all *Jik* clients of a specific audit firm *i* in industry *k*. The denominator in equation (3) is the total assets of all *Jik* clients in industry *k*, summed over all *Ik* audit firms. To estimate industry market share for auditors in a given industry for a particular year, this study requires a minimum of 10 clients in an industry (using two-digit SIC classification).

According to hypothesis H2, the coefficients of β_5 and β_6 in Equation (2), representing the incremental value relevance of *EPS* and *BV*, respectively, will be negative and positive to reflect the noisy earnings information and equity book value will play a relatively more important role in explaining stock prices in case of non-industry auditors. Yet, the coefficients of β_8 and β_9, will be positive and negative respectively to reflect the knowledge spillover effect of non-audit services in case of industry auditors.

4. Empirical Analysis

4.1. Descriptive Statistics. Table 1 presents descriptive statistics pertaining to the sample with non-audit fees disclosure in the analysis. The result indicates that the average stock price, the average equity book value, and the average earnings per share

in the entire sample are $29.34, $17.17, and $1.73, respectively. The average non-audit fee ratio (RATIO) is approximately 24%. In essence, it suggests that non-audit economic rents play a decisive role for the listed firms mandated to disclose their audit fees information in Taiwan. In other words, non-audit fees are important revenues for auditors and provide sound incentives to make auditors compromise their independence, thereby strike against earnings quality.

Table 1. **Descriptive Statistics of the Related Variables (N=1,114)**

Variables	Mean	Standard Deviation	Median	Max	Min
P	29.34	36.52	19.61	432.03	1.47
EPS	1.73	3.72	1.58	39.86	-31.77
BV	17.17	8.66	15.55	97.84	-0.264
RATIO	0.24	0.24	0.21	1	0
EXP	0.22	0.14	0.21	0.64	0.00
SIZE	15.34	1.41	15.27	20.13	11.71
LEV	0.40	0.17	0.39	1.04	0.02
LOSS	0.16	0.37	0	1	0

4.2. Empirical Results. The empirical results are presented in Table 2. From Table 2, the Adj.-R2 of the model is 57.03%, 57.15%, and 57.19%, respectively, which are statistically significant at the 1% level. The coefficients on *EPS* and *BV*, which capture the respective effects of *EPS* and *BV* on stock price without non-audit fees effects, are both positive and statistically significant at the 1% level. These findings are consistent with those in previous studies (e.g., Ohlson, 1995) that there is a strong positive relationship between share price and earnings/equity book value. In the ratio model, the coefficient on *EPS*RATIO* is -7.402 (t=-2.89) which is negative and statistically significant at the 1% level. This suggests that the higher non-audit fee ratio is taken as a noise impounded in the current reported earnings resulting in negative impact on value relevance of earnings. The coefficient on *BV*RATIO* is 2.698 (t=2.45), positive and statistically significant at the 5% level. There is indeed a positive impact of higher non-audit fee ratio on the value relevance of equity book value to reflect the complement role when the value relevance of earnings decreases. The first hypothesis is supported by the empirical results. The findings are consistent with the economic dependence hypothesis of non-audit services, which predicts that non-audit services deteriorate accounting earnings quality and thus investors would rely less on earnings information as the provision of non-audit services increases. It is reasonable to attribute such empirical results to the litigation risk which is one of the important factors in the auditor's decision making.

$$P_{it} = \alpha_0 + \beta_1 EPS_{it} + \beta_2 BV_{it} + \beta_3 RATIO_{it} + \beta_4 EPS_{it} \times RATIO_{it} + \beta_5 BV_{it} \times RATIO_{it} + \\ + \beta_6 SIZE_{it} + \beta_7 LEV_{it} + \beta_8 LOSS_{it} + \sum_{i=9}^{13} \beta_i * D\_YEAR_t + \varepsilon_{it}$$

$$P_{it} = \alpha_0 + \beta_1 EPS_{it} + \beta_2 BV_{it} + \beta_3 RATIO_{it} + \beta_4 EXP_{it} + \beta_5 RATIO_{it} \times EXP_{it} + \\ + \beta_6 EPS_{it} \times RATIO_{it} + \beta_7 BV_{it} \times RATIO_{it} + \beta_8 EPS_{it} \times RATIO_{it} \times EXP_{it} + \beta_9 BV_{it} \times \\ \times RATIO_{it} \times EXP_{it} + \beta_{10} SIZE_{it} + \beta_{11} LEV_{it} + \beta_{12} LOSS_{it} + \sum_{i=13}^{17} \beta_i * D\_YEAR_t + \varepsilon_{it}$$

Table 2. **Regression Results of Stock Price on Earnings, Book Value and the Interactive Variables for Firms with Higher Non-audit Fee Ratio**

Explanatory Variables	Dependent Variable (P)		
	Ratio Model (t-value)	Expertise Model (t-value)	
		Measured as Continuous variable	Measured as Dummy variable (20% cutoff)
Intercept	23.977[b] (2.43)	22.890[a] (2.57)	22.941[a] (2.62)
EPS	4.565[a] (3.06)	4.441[a] (9.16)	4.572[a] (9.49)
BV	1.860[a] (3.88)	1.855[a] (8.81)	1.921[a] (9.21)
RATIO	-28.145[c] (-1.85)	-29.808[b] (-2.23)	-36.005[a] (-3.96)
EXP	---	5.910 (0.85)	0.164 (0.08)
RATIO*EXP	---	7.990 (0.14)	16.283 (1.47)
EPS*RATIO	-7.402[a] (-2.89)	-10.354[a] (-6.47)	-8.525[a] (-7.24)
BV*RATIO	2.698[b] (2.45)	3.245[a] (3.97)	3.384[a] (6.38)
EPS*RATIO*EXP	---	14.070[b] (2.26)	1.882[c] (1.67)
BV*RATIO*EXP	---	-2.637 (-0.77)	-1.412[b] (-2.53)
SIZE	-2.823[a] (-5.36)	-2.831[a] (-4.84)	-2.816[a] (-4.96)
LEV	2.489 (0.49)	3.588 (0.75)	2.193 (0.46)
LOSS	15.789[a] (5.36)	15.330[a] (6.43)	15.930[a] (6.72)
D_YEAR	---	---	---
N	1,114	1,114	1,114
Adj.-R^2	0.5703	0.5715	0.5719
F-value	114.65[a]	88.31[a]	88.48[a]

1. For simplicity, this study ignores all the coefficients of dummy variables for various years in the results.
2. a, b, and c indicate statistical significance at the 1%, 5%, and 10% levels respectively.

This study uses both "continuous variable" and "dummy variable based on cutoff 20% market share" to proxy the auditor specialization in "Expertise Model". From Table 2, the coefficients on *EPS*RATIO* are -10.354 (t=-6.47) and -8.525 (t=-7.24) respectively, both negative and statistically significant at the 1% level. The coefficients on *BV*RATIO* are 3.245 (t=3.97) and 3.384 (t=6.38), both positive and statistically significant at the 1% level. This suggests that non-industry auditors with higher non-audit fee ratio is taken as a noise impounded in the earnings resulting in negative impact on the value relevance of earnings, yet, triggering the complement role of equity book value in explaining a firm's stock price. Most importantly, the coefficients on *EPS*RATIO*EXP* are 14.070 (t=2.26) and 1.882 (t=1.67) respectively, both positive and at least statistically significant at the 10% level. The coefficients on *BV*RATIO*EXP* are -2.637 (t=-0.77) and -1.412 (t=-2.53) respectively, both negative and the latter statistically significant at the 5% level. These results suggest that the higher non-audit services provided by the industry auditors effectively mitigate the negative impact on the value relevance of earnings component perceived by investors. There is indeed a positive impact of auditor specialization with higher non-audit fee

ratio on the value relevance of earnings, yet, moderate evidence to complement the value relevance decrease of equity book value. The second hypothesis is, to some extent, supported by the empirical results.

This study uses total assets at the end of a fiscal year to scale the variables and re-examine the empirical models. This study also uses alternative cutoff (25% and 15%) of auditor specialization to examine the hypothesis and measures auditor industry specialization based on the market share of auditors through the number of clients to replace the initial total assets of clients and rerun the regressions. The results of these additional examinations are without significant difference and confirm the initial empirical findings. Chaney & Philipich (2002) suggest dramatically audit scandals induce the investors' perceptions of impairment of auditor independence. The PROCOMP scandal has aroused public awareness of auditor behavior in Taiwan. This have led auditors place more consideration on litigation risk and reputation loss. This study is motivated to control the possible influences of PROCOMP event on the value relevance of accounting numbers and enhance the model specification. Overall, the empirical findings support in both pre-PROCOMP and post-PROCOMP subperiods.

Our findings support the view that higher non-audit fee ratio is systematically associated with investors' changing their valuation assessments about the auditor-client relationships. The result also indicates that both the negative influence on the value-relevance of earning information and the positive impacts on the value-relevance of book value decrease in case of industry auditors.

5. Conclusion. This study explores the prediction that the value relevance of equity book value (earnings) increases (decreases) as listed firms pay higher non-audit fees to the appointed auditors. And, auditor expertise arising from industry specialization can improve audit quality, in and of itself. This study conjectures the firms with higher non-audit fee ratio, yet, audited by an industry auditor can effectively mitigate the decreasing value relevant of earnings variable in determining firms' stock prices.

The empirical results indicate that, as conjectured, the value relevance of reported earnings decreases and the value relevance of equity book value increases for the listed firms with higher non-audit fee ratio compared to their counterparts. Moreover, the value relevance of current earnings decreases and the value relevance of equity book value increases for the firms with higher non-audit fee ratio are effectively mitigated in the case of industry auditors, but less likely so in the case of non-industry specialist auditors. Because our analysis is based on the stylized Ohlson model, the usual caution with joint model fitting and non-audit services effect should be employed in interpreting the results. In addition, although this study provides evidence on the value relevance of the non-audit services to examine the possible policy effect of FSC mandating disclosure of fees for both audit and non-audit services under some conditions, it does not take into account the costs of these disclosures.

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