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CLIENT IMPORTANCE AND AUDIT QUALITY - A COMPARISON BEFORE AND AFTER THE COVID-19 PANDEMIC

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Abstract

During the COVID-19 pandemic, auditors were unable to conduct on-site audits and had to rely on alternative audit procedures for financial statement audits. This situation provided an opportunity to observe whether auditors' economic dependence on clients would affect auditor independence. Therefore, this study examines whether the higher client importance leads to higher audit quality using data from listed and over-the-counter companies in Taiwan from 2017 to 2020. It also compares the impact of the pandemic on audit work and investigates whether auditors are more likely to allow earnings management for clients with higher economic dependence.

Empirical results reveal that before the pandemic, the quality of audit certifications for financial statements by auditors before the pandemic did not significantly change based on the importance of the client. However, after the outbreak of the pandemic, audit firms adopted higher audit quality for the important clients to maintain firm reputation and provide high-quality audit services to retain quality clients.

Keywords: Client Importance, COVID-19 Event, Audit Quality

Introduction

At the end of 2019, the novel coronavirus (COVID-19) spread rapidly at an alarming rate, with an infection rate over ten times higher than that of the SARS virus. Despite the experience gained from combating the SARS virus in 2003, countries worldwide were unable to prevent the spread of the epidemic. As of July 2021, there have been over 197 million confirmed cases and more than 4.22 million deaths attributed to COVID-19. The highly infectious nature and rapid transmission of the virus led countries to implement strict isolation precautions, including social distancing, quarantine requirements for entry or exit, travel restrictions, and stagnation of industrial production, the results in economic recession and the disruptions in the supply chain.

The function of auditing is to enhance the credibility of financial statements and reduce information asymmetry between management and financial statement users (Jensen and Meckling, 1976; Watts and Zimmerm, 1983). Many previous auditing studies have emphasized the value of auditing in enhancing the credibility and reliability of financial report. According to the industry surveys conducted by the Department of Labor, the peak season for accounting firms is from April to June each year. During this time, auditors face long working hours and high pressure, leading to a higher turnover rate within firms. There is no consensus in the literature on whether auditors' economic dependence on audited clients indicates good audit quality. Some scholars argue that audit fee dependence does not affect auditors' professional judgment and issuance of audit opinions (Reynolds and Francis, 2000; Craswell, Stokes, and Laughton, 2002). On the other hand, some scholars believe that higher economic dependence on audited clients may lead auditors to tolerate earnings management by audited companies (Goldman and Barlev, 1974; Wallman, 1996; Frankel, Johnson, and Nelson, 2002).

The implementation of isolation measures worldwide following the outbreak of the pandemic directly affected the audit work of auditors. Conseguently, alternative audit procedures were adopted in many cases, although these procedures cannot fully replace auditors' direct audit work. Therefore, the main purpose of this study is to investigate whether higher client importance leads to higher audit quality and to compare the impact of the pandemic on audit work. Specifically, we examine whether auditors are more likely to tolerate earnings management by audited companies with higher economic dependence on clients.

The main research contributions of this study can be summarized as follows. Firstly, there is relatively little literature comparing the effects of the COVID-19 pandemic before and after its outbreak. This study provides relevant research evidence on this topic for the first time. Secondly, the relationship between client importance and audit quality lacks consensus in the literature, and the COVID-19 pandemic directly impacts the audit work of auditors. Therefore, the second research contribution of this project is to clarify whether client import-ance is a significant factor influencing audit quality before and after the pandemic.

Literature Review and Discussion

Chi, Douthett, and Lisic (2012) conducted a study on Taiwanese companies, using the modified Jones model to estimate the absolute value of abnormal accruals, the propensity of audit partners to issue modified audit opinions, and the probability that clients meet or just beat earnings targets as proxy variables for auditor independence. Overall, the results did not indicate that the Big Four accounting firms compromised their independence for economically dependent clients, but it was found that non-Big Four firms were more likely to compromise their independence for economically important clients.

Chung and Kallapur (2003) measured client importance using different perspectives and scales, such as the client's debt-to-equity ratio, price-to-book ratio, sales growth rate, management ownership of stock options, and the proportion of outstanding common shares held by shareholders owning more than five percent. They found no significant association between client importance and earnings management when auditing firms were divided into Big Four and non-Big Four categories. However, they observed a significant relationship between client importance and earnings management when considering the proportion of total client fees to total firm revenue, particularly at the first and third quartiles.

Reynolds and Francis (2000) argued that larger firms are more likely to economically depend on major audit clients. Contrary to their hypothesis, they found that audit firms, particularly the Big Four, did not compromise their independence or issue fewer going concern opinions for economically significant clients.

Frankel et al. (2002) investigated the relationship between non-audit service fees and earnings quality, particularly after the Enron scandal. They found a positive association between non-audit service fees and earnings management when using various proxies for client importance.

Ashbaugh et al. (2003) suggested that the significance of client importance in affecting audit quality depends on the relative magnitude of non-audit service fees provided to individual clients. They found no significant correlation between non-audit service fees and earnings management when using a performance-adjusted discretionary accrual as a proxy variable for earnings management.

Li and Chen (2004) proposed using the audit team as the unit of analysis to measure client importance in Taiwan, rather than the entire firm. They found that both Big Four and non-Big Four firms allowed economically significant clients more leeway for earnings management, particularly in non-Big Four firms.

Yang and Guan (2006) discussed the impact of the Enron scandal on audit quality in Taiwan and found that audit judgments regarding the provision of allowance for doubtful accounts might be affected when auditors face the risk of losing clients.

Wang and Chien (2017) investigated factors influencing auditors' judgments on companies' allowance for doubtful accounts. They found that auditors in Big Four firms tended to estimate lower allowance amounts when facing the risk of losing clients.

In summary, while auditors may suppress earnings management to maintain their reputation and avoid litigation for economically significant clients, this study suggests that auditors may still compromise their independence due to substantial audit or non-audit fee pressure from clients. Consequently, auditors may reduce the disclosure of key audit matters in their audit reports.

Hypothesis 1: The higher the economic dependence of clients on auditors, the poorer the audit quality.

COVID-19 pandemic has gradually expanded worldwide from November 2019 to February 2020. Governments around the world have adopted measures such as reducing flights or temporarily prohibiting entry of tourists to mitigate the spread of the virus. In Taiwan, the proportion of investment in Mainland China by listed companies and over-the-counter companies has been increasing. The Financial Supervisory Commission (FSC) of Taiwan issued a letter on February 25, 2020, announcing that accounting firms auditing the annual financial reports of listed and over-the-counter companies for the year 2019 may adopt alternative audit procedures to obtain sufficient and appropriate audit evidence due to the impact of the novel coronavirus epidemic. During the pandemic, auditors may not be able to conduct inquiries or obtain information from management in a timely manner in a remote environment. Consequently, the scope of audit work by auditors may be limited, thus affecting audit quality.

Hypothesis 2: After the outbreak of the pandemic, the higher the economic dependence of clients on auditors, the relatively worse the audit quality may become.

Research Methodology

Research Model

This study adopts the linear regression model to validate the hypotheses proposed and establishes an empirical model based on the above inference as follows:

$$
\begin{aligned}
|DA_{i,t}| = {} & \beta_0 + \beta_1 Climpfirm_{i,t} + \beta_2 Climp\_L_{i,t} + \beta_3 Climp\_C_{i,t} + \beta_4 COVID \\
& + \beta_5 Climpfirm_{i,t} \times COVID + \beta_6 Climp\_L_{i,t} \times COVID \\
& + \beta_7 Climp\_C_{i,t} \times COVID + \beta_8 \mathrm{Climpfirm\_Tenue}_{i,t} + \beta_9 \mathrm{Climp\_L\_Tenue}_{i,t} \\
& + \beta_{10} \mathrm{Climp\_C\_Tenue}_{i,t} + \beta_{11} Size_{i,t} + \beta_{12} Lev_{i,t} + \beta_{13} GW_{i,t} + \beta_{14} LOSS_{i,t} \\
& + \beta_{15} Age_{i,t} + \beta_{16} OCF_{i,t} + \beta_{17} Big4 + \varepsilon_{i,t}
\end{aligned}
$$

In this study, discretionary accruals, taken as the absolute value, serve as a proxy for earnings quality. Discretionary accruals are calculated based on the modified Jones model proposed by Kothari et al. (2005), which incorporates the current period's return on assets (ROA) to control for performance-based variations. In summary, discretionary accruals represent the residual term in the model. The model estimation is as follows:

$$\frac{TA_{i,t}}{A_{i,t-1}} = \beta_0 \frac{1}{TA_{i,t-1}} + \beta_1 \frac{(\Delta REV_{i,t} - \Delta REC_{i,t})}{A_{i,t-1}} + \beta_2 \frac{PPE_{i,t}}{A_{i,t-1}} + \beta_3 ROA_{i,t} + \varepsilon_{i,t}$$

Where:

$TA_{i,t}$ represents the total accruals for company i in period t, calculated as the difference between net income from continuing operations and operating cash flow.

$A_{i,t-1}$ represents the total assets of company i at the end of period t−1.
$\Delta REV_{i,t}$ represents the change in operating revenue for company i from period t−1 to period t.

$\Delta REC_{i,t}$ represents the change in accounts receivable for company i in period t.
$PPE_{i,t}$ represents the total property, plant, and equipment (PPE) of company i in period t, calculated as the sum of costs for buildings and structures, machinery and equipment, and estimated asset revaluation increments minus land revaluation increments.

$ROA_{i,t}$ represents the return on assets for company i in period t−1.

$\varepsilon_{i,t}$ represents the residual term for period

The independent variables include client importance, further disaggregated into firm importance (Climpfirm), lead partner importance (Climp_L), and concurring partner importance (Climp_C), as well as whether it is during the COVID pandemic (COVID), and the interaction between client importance and the occurrence of the COVID pandemic (ClimpfirmCOVID, Climp_LCOVID, Climp_C*COVID).

Control variables consist of firm tenure (Climpfirm_Tenure), lead partner tenure (Climp_L_Tenure), and concurring partner tenure (Climp_C_Tenure), company size, whether the company is audited by a Big Four accounting firm, whether the company incurred losses in the current year, company age, debt ratio, revenue growth, and year and industry controls.

Operating cash flow is measured as operating cash flow divided by total assets at the beginning of the period. Revenue growth is calculated as the difference between current year net revenue and previous year net revenue, divided by previous year net revenue. Company size is measured as the natural logarithm of total assets at the end of the period. The debt ratio is calculated as the book value of total liabilities divided by the book value of total assets at the end of the period.

Sample and Data Structure

This study uses Taiwanese listed and OTC companies from 2017 to 2020 as the research sample. The data is obtained from the Taiwan Economics Journal Database (TEJ). The dependent variable in the sample is measured using Kothari et al. (2005)'s performance-matched discretionary accruals. For industry control, the sample selection requires a minimum of 10 companies in each industry for each year, with KY and DR stocks excluded. After these exclusions, the remaining research sample consists of a total of 6,333 observations.

Table 1: Sample Selection Table

Original Sample Size	7,094
Minus: KY stocks	(428)
Minus: DR stocks	(40)
Minus: Financial, securities, banks, insurance	(180)
Minus: Sample missing data and industries with fewer than 8 companies	(113)
Final Sample Used	6,333

Empirical Results

Descriptive Statistics

Table 2 presents the descriptive statistics of the variables used in this study. The dependent variable, audit quality, is measured by absolute discretionary accruals, with a mean of 0.0612. The maximum and minimum values are 2.1135 and 0, respectively. The absolute discretionary accruals are close to zero on average, indicating that overall, audit quality is acceptable. When considering the absolute discretionary accruals, the mean for non-Big Four accounting firms is 0.0755, while for Big Four accounting firms, it is 0.0573. The research findings suggest that non-Big Four accounting firms exhibit excessively high dependence on client fees, leading to overly simplified audit procedures and consequently affecting audit quality negatively. Big Four accounting firms, on the other hand, tend to conduct more rigorous audit procedures and exhibit relatively lower client dependence, resulting in more robust audit quality with lower absolute discretionary accruals and higher credit ratings.

Under the influence of the COVID-19 pandemic, major accounting firms have resorted to alternative audit procedures, potentially restricting the scope of audits and leading to a decline in audit quality. The results of this study indicate that, under the influence of COVID-19, the mean absolute discretionary accruals for Big Four accounting firms and non-Big Four accounting firms are 0.0607 and 0.0823, respectively.

Table 2: Descriptive Statistics

	Minimum	Maximum	Mean
|DA|	0.000	2.114	0.0612
Climpfirm	0.000	100.000	1.9435
Climp_L	0.000	100.000	11.3663
Climp_C	0.000	100.000	11.1632
COVID	0.000	1.000	0.5000
Climpfirm*COVID	0.000	100.000	0.9211
Climp_L*COVID	0.000	100.000	5.6820
Climp_C*COVID	0.000	100.000	5.6785
Big4	0.000	1.000	0.8900

Both averages show a significant increase compared to pre-pandemic levels, suggesting that alternative audit procedures have increased the risk of material misstatements in financial statements. Therefore, it can be inferred that the use of alternative audit procedures during the pandemic has resulted in reduced disclosure of key audit matters in audit reports, leading to compromised objectivity and impacting audit quality.

Regression Analysis

Table 3 presents the empirical results for testing hypotheses H1 and H2. The study findings reveal that before the COVID-19 outbreak, the impact of client importance measured by lead auditor revenue on discretionary accruals (audit quality) is significantly negatively correlated (coefficient = -0.0450, p-value = 0.0480). Similarly, the impact of client importance measured by assistant auditor revenue on discretionary accruals (audit quality) is significantly negatively correlated (coefficient = -0.0130, p-value = 0.5700). This indicates that audit quality does not deteriorate with higher economic dependency. However, after the COVID-19 outbreak, the impact of client importance measured by lead auditor revenue on discretionary accruals (audit quality) shows a positive correlation but does not reach statistical significance (coefficient = 0.0430, p-value = 0.0670). Likewise, the impact of client importance measured by assistant auditor revenue on discretionary accruals (audit quality) is positively correlated but does not reach statistical significance (coefficient = 0.0300, p-value = 0.2000). This suggests that the decline in audit quality after the COVID-19 outbreak is solely due to pandemic- related factors, rather than economic dependency, thereby rejecting hypothesis H1.

The experimental results indicate that before the outbreak of the pandemic, audit quality was not affected by the proportion of client fees. Further investigation was conducted to determine whether the decline in audit quality was due to the pandemic. The empirical findings show that before the pandemic, the impact of client importance measured by lead auditor revenue on discretionary accruals (audit quality) is significantly negatively correlated (coefficient = -0.0450, p-value = 0.0480). Similarly, the impact of client importance measured by assistant auditor revenue on discretionary accruals (audit quality) is significantly negatively correlated (coefficient = -0.0130, p-value = 0.5700). This suggests that audit quality does not deteriorate with higher economic dependency.

After the outbreak of the pandemic, the impact of client importance measured by lead auditor revenue on discretionary accruals (audit quality) shows a positive correlation but is not statistically significant (coefficient = 0.0430, p-value = 0.0670). Similarly, the impact of client importance measured by assistant auditor revenue on discretionary accruals (audit quality) is positively correlated but does not reach statistical significance (coefficient = 0.0300, p-value = 0.2000). This indicates that audit quality indeed deteriorated after the pandemic outbreak. Thus, hypothesis H2 is supported: higher economic dependency of clients on auditors leads to lower audit quality after the pandemic outbreak.

Table 3: Regression Analysis

Variable	Coeffi. (p-value)	VIF
Intercept		
Climpfirm	0.0269 (0.1910***)	4.0770
Climp_L	-0.0448** (0.0480)	4.3540
Climp_C	-0.0133 (0.5700)	3.0570
COVID	0.01744*** (0.003)	4.2830
Climpfirm*COVID	-0.0580 (0.0670)	4.4640
Climp_L*COVID	0.0426 (0.2000)	1.6380
Climp_C*COVID	0.0304*** (0.0010)	1.2710
Adj. R^2	0.202	
F	36.575(0.000***)	

Conclusion

The degree of economic dependence of auditors on their audit clients has always been a concern in academia and regulatory bodies. Especially during the COVID-19 pandemic, governments around the world implemented strict border controls to reduce cross-border transmission. Under these circumstances, auditors were unable to conduct on-site audits and could only resort to alternative audit procedures, leading to the primary objective of this study: to compare whether the higher economic dependence of auditors on their audit clients led to a significant decrease in audit quality before and after the pandemic.

Based on the results of this study, from the perspective of accounting firms, it was found that before the pandemic, there was a positive but not significant correlation between client importance and audit quality. However, after the pandemic, there was a significant negative correlation between client importance and audit quality, indicating that after the pandemic, firms tended to provide higher quality audit services to more important clients. From the perspective of lead auditors, before the pandemic, there was a significant negative correlation between client importance and audit quality. However, after the pandemic, there was a positive correlation between client importance and audit quality, although not significant, suggesting that lead auditors tended to lower audit quality for more important clients after the pandemic. From the perspective of assistant auditors, before the pandemic, there was a negative correlation between client importance and audit quality, although not significant. However, after the pandemic, there was a positive correlation between client importance and audit quality, although not significant, indicating that assistant auditors tended to lower audit quality for more important clients after the pandemic. Therefore, we reject hypothesis H1 and partially support H2.

In December 2021, the Financial Supervisory Commission (FSC) of Taiwan proposed the Auditing Quality Index (AQI), which covers five major dimensions and thirteen indicators, including professionalism, quality control, independence, supervision, and innovation. On December 30, 2021, the "Transparency Reporting Principles for Accounting Firms" was issued as the basis for preparing transparency reports for firms, including firm profile and legal framework, governance structure and management information, risk management and quality control system information, audit quality-related indicators, financial and business information, etc. As this system is still under development, the results of this study are expected to contribute to the further improvement of the AQI evaluation system.

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