Research on the Relationship between Customer Importance and Audit Quality

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Abstract. Audit quality is the joint probability of CPA to find and report financial report errors or frauds, which mainly depends on CPA's professional competence and independence. This paper explores the impact of customer importance on audit quality from the perspective of CPA's independence. Based on the data of China's A-share listed companies and their main audit firms from 2015 to 2017, this paper studies the relationship between customer importance and audit quality, taking whether it is the "top ten" as an alternative variable of audit quality, and taking the proportion of audit fees charged by accounting firms to specific customers and the total fees charged by accounting firms to all customers as a sign of customer importance. It is found that there is a significant negative relationship between customer importance and audit quality.

Key words: Customer Importance; Audit Quality; Audit Independence

1. Introduction

The more the economy develops, the more important the role of audit is. Therefore, audit quality has become a hot issue for investors, regulators and the public. With the occurrence of a series of financial scandals such as Enron and WorldCom, as well as the introduction of the Sarbanes Oxley Act (SOx), the impact of customer importance on audit quality has become the focus of attention of domestic and foreign academia, practitioners and regulators. Nowadays, the auditing market is so competitive that firms may not treat customers equally. In the audit entrustment relationship, certified public accountants or accounting firms will be under pressure from customers, especially from customers with large scale and high audit fees. Customer pressure refers to the pressure that the management authorities force the certified public accountant not to report the financial default by virtue of its dominant position in the entrustment relationship. When the proportion of audit fees from an audit client to the total fees of an accounting firm increases, the client's pressure on the accounting firm is further increased. When the financial source of an accounting firm is too dependent on a certain client, if the client exerts pressure, the independence principle of the accounting firm will face the possibility of loss, which will lead to the decline of audit quality. In view of this, this paper uses the year data of A-share listed companies and their main audit firms to investigate whether there is a negative relationship between customer importance and audit quality.

2. Literature Review

Whether the auditor's economic dependence on important customers will affect the audit independence and damage the audit quality has attracted extensive attention of academia and regulators for a long

time, but the existing research has not reached a consensus conclusion.

The relationship between customer scale and audit quality has been studied for a long time in foreign countries. DeAngelo (1981) believes that auditors have a certain degree of "quasi rent" for each specific customer. The more important the customer is, the greater the auditor's economic dependence on it is. There is a strong incentive for auditors to compromise on audit quality in order to retain customers. In recent years, some scholars believe that the relationship between customer importance and audit quality is affected by the auditor's reputation or scale (chi et al., 2012).

According to the study of audit market in China, Liu Minghui et al. (2003) took the ratio of non-standard opinion number of A-share listed company customers to total A-share customers in 1998-2000 as an alternative variable of audit quality, and took customer asset size as one of the research variables, and found that customer size was positively correlated with high audit quality. Fang Junxiong et al. (2004) took 2001 listed companies as samples, Taking audit opinion as an alternative variable of audit quality, it is found that the higher the economic dependence is, the more cautious the firm is in terms of the economic dependence measured by "total income from a single client / total income of the firm in the current year". Yu Xiaoming et al. (2008) took the data of China's A-share market from 2003 to 2006 as samples to test the impact of customer importance on audit quality. Their results show that customer importance is only positively correlated with audit quality in 2006, and only exists in the "top ten" sample groups. Later, Lu Wei et al. (2009) found that the stronger the economic dependence on important customers, the easier the firm is to yield to customers, and the worse the quality of audit reports it issues. Li Minghui and Liu Xiaoxia (2013) research results show that the relationship between customer importance and audit quality will be affected by the level of corporate governance. Effective corporate governance can alleviate the adverse impact of customer importance on audit independence. Zhou Lan and Zhang Xiyan (2016) studied the relationship between the importance of customers and audit quality with industry supervision as a regulating variable. The research shows that the branch office compromises to the earnings manipulation of important customers.

3. Theoretical Analysis and Research Hypothesis

In the case of economic dependence, how the importance of audit client affects audit quality depends on the comparison of negotiation power between audit client and auditor. The competition of audit market makes the accounting firm in a buyer's market. Although the contract signing of audit project is free, the management authority of audit client can actually choose the auditors that meet their own needs from a large number of audit firms. When the competition between accounting firms intensifies, the negotiation power of audit clients is in an absolute advantage. The audit client can threaten the auditor by changing the firm, which makes it difficult for the auditor to maintain independence and has to submit to the client's requirements. To resist the pressure of audit clients to issue "non-standard" opinions greatly improves the possibility of auditor's exit, even if not abandoned, audit fees may be greatly reduced, non audit business will shrink, and the relationship with management will deteriorate. Based on this, this paper puts forward hypothesis 1:

H1: The importance of customers will affect the audit quality of accounting firms. The more important the customers are, the lower the audit quality is.

Customers with high audit related income may lead to the formation of economic dependence, but for firms, they may also mean greater audit risk, resulting in potential loss effect. Customers with high audit fees usually belong to large-scale companies, and they are relatively concerned by the market. Therefore, audit failure is also concerned by the public and regulatory authorities, which will undoubtedly enlarge the damage effect of audit failure on the reputation of the firm. In addition, the larger the scale of customers, the higher the audit fees, and the greater the direct economic losses suffered by the firms due to audit failure. Therefore, from the perspective of potential loss effect, for customers with higher audit income, the firm may be more cautious and invest more audit resources to reduce the possible loss. Based on the above analysis, we propose the competitive hypothesis of hypothesis one, namely hypothesis two:

H2: The importance of customers will affect the audit quality of accounting firms. The more important the customers are, the higher the audit quality is.

4. Research Design

4.1. Sample Data Source

This sample is selected from all A-share listed companies listed on Shanghai and Shenzhen stock exchanges in 2015-2017, excluding the samples of financial industry, St/Pt or delisting and data missing. In order to avoid the influence of extreme value, the continuous variables are reduced at the 1st and 99th percentile respectively, and 7890 observations are finally obtained. The research data of this paper are all from wind database. Data in this paper are processed with stata14.0.

4.2. Index Selection of Key Variables

4.2.1. Audit Quality. Whether the audit institution is one of the "top ten" accounting firms in China and whether the controllability accrual based on Jones model is the best alternative to audit quality (Zhang Hongliang et al., 2016). Therefore, this paper chooses whether it is the "top ten" to replace the audit quality, that is, whether the audit firm hired by the company is the top ten accounting firm in China, if it is 1.

4.2.2. Customer Importance. From the existing literature, there are three main indicators to measure the importance of customers: the ratio of audit fees for specific customers to the total fees charged by the firm to all customers; the ratio of the logarithm of assets of specific customers to the logarithm of assets of all customers of the firm; the ratio of the logarithm of revenues of the firm to specific customers to the logarithm of revenues of the firm to all customers. In this paper, we use the proportion of audit fees to specific clients and total fees to all clients to measure customer importance (CI).

4.2.3. Control variables. In addition, the company size, financial leverage, growth, cash flow, return on assets and other factors that may affect audit quality are controlled. In addition, we use year and industry dummy variables to control the impact of macroeconomic environment, industry characteristics and other factors.

4.3. Establishment of Regression Model

In order to test the above research hypothesis, we constructed the following regression model:

$$AQ=\beta_0+\beta_1 CI+\beta_2 OCF+\beta_3 Lnassets+\beta_4 LEV+\beta_5 ROA+\beta_6 Growth+\Sigma \text{ year}+\Sigma \text{ Industry }+\epsilon$$

We use whether it is the "top ten" accounting firm in China to measure the audit quality. OCF is the net cash flow generated by the company's operating activities divided by operating income. Lnassets is the natural logarithm of the company's total assets at the end of the year. LEV is the company's asset liability ratio. ROA is the asset return ratio. Growth is the company's operating income growth rate. And it also controls the fixed effect of the year and the industry.

5. Empirical Analysis

(1) Descriptive Statistics

Table 1. Descriptive statistics

Variable	N	Min.	max.	mean	sd
BIG10	7890	0	1	0.609252	0.487949
CI	7890	0.000358	0.590406	0.015397	0.028384
OCF	7890	-1567.82700	1538.289000	7.948189	47.596750
Lnassets	7890	17.641300	28.508530	22.306680	1.309009

LEV	7890	1.198300	326.189600	42.501990	21.051930
ROA	7890	-87.391200	59.814700	4.166483	6.237124
Growth	7890	-92.634000	8748.366000	28.667950	215.989300

Variable descriptive statistics shows that the average customer importance CI calculated by the proportion of audit fees is about 0.0154, indicating that the average contribution of each customer to a specific firm is about 1.54%, which shows that in China's A-share capital market, the average contribution of each customer to the firm is not high, which further indicates that there is fierce competition in China's audit market.

(2) Correlation analysis

Table 2. Correlation Analysis

	BIG10	CI	OCF	Lnassets	LEV	ROA	Growth
BIG10	1						
CI	-0.3959*	1					
OCF	0.0307	-0.0040	1				
Lnassets	0.1218*	0.2720*	0.0332	1			
LEV	0.0353*	0.1277*	-0.0658*	0.5005*	1		
ROA	0.0226	-0.0365*	0.1479*	-0.0022	-0.3617*	1	
Growth	-0.0088	0.0133	-0.0062	0.0071	0.0406*	0.0314	1

Note: * indicates significant at 5% level

The Pearson correlation coefficient between variables shows that the customer importance is significantly negatively correlated with audit quality at the significance level of 5%, indicating that the greater the customer importance is, the more likely the audit quality is to be negatively affected by it, but this conclusion needs to be further tested. The person correlation coefficient between explanatory variable, control variable and control variable is small, the highest is 0.3617. Generally speaking, the collinearity problem is not serious.

(3)Regression analysis

The probit model is used for regression analysis. See Table 3 for the overall regression and time-sharing regression results of samples according to hypothesis H

Table 3. Empirical test results

BIG10	Total samples	2015 samples	2016 samples	2017 samples
constant	-19.89554* (-27.00)	-1.432442* (-9.02)	-1.561815* (-9.36)	-1.567636* (-9.24)
CI	-161.5508* (-37.60)	-7.972112* (-26.49)	-7.985017* (-25.91)	-8.039316* (-25.23)
OCF	0.0012591 (1.78)	0.0001837 (0.93)	0.0002265 (1.47)	0.0001062 (0.54)
Lnassets	1.017655* (28.26)	0.1001967* (13.04)	0.1057584* (13.17)	0.1035975* (12.69)
LEV	-0.0081252* (-4.36)	-0.0009782* (-2.01)	-0.001354* (-2.61)	-0.0008909 (-1.67)
ROA	-0.012798* (-2.40)	0.0002382 (0.18)	-0.0027007 (-1.67)	-0.0008278 (-0.51)

Growth	-0.0000467 (-0.36)	-0.0000289 (-0.57)	0.0000494 (0.01)	0.0000136 (0.36)
R2	0.3732	0.2241	0.2184	0.2107
F value	——	126.25	122.09	116.72

Note: * indicates significant at 5% level; robust t value in brackets

The first column of Table 3 shows the probit regression results of the total samples from 2015 to 2017, the coefficient of customer importance (CI) is negative, and the statistical relationship is significant; further time-based regression, in 2015, 2016 and 2017, the coefficient of customer importance CI is negative, statistically significant, indicating that the customer importance (CI) and whether it is the top ten (big10) are at 5% There is a significant negative correlation on the level, that is, there is a negative relationship between customer importance and audit quality. OCF was positively correlated at 5% level in the total sample and the sample group by year, but not significantly. The sign of lnassets was positive and significantly correlated at 5% level in all four sample groups. The sign of Lev was negative and significantly correlated at 5% level in all four sample groups. ROA was only negatively correlated in the whole sample group. Growth has positive and negative signs in four sample groups, and there is no significant relationship in statistics.

6. Research Conclusions and Policy Recommendations

This paper explores the impact of customer importance on audit quality from the perspective of CPA independence. The results show that, in general, customer importance has a significant negative impact on audit quality. The results show that the auditor will choose the latter between maintaining important customers and reducing legal and regulatory risks and avoiding reputation loss trade-offs, in which case the auditor's independence will be affected. This conclusion puts forward higher requirements for the accounting firm to improve the audit quality of important customers. In view of this, the accounting firm should further reduce the economic dependence on the important customers with high audit fees by strengthening the auditor's sense of responsibility and other means, and audit them through more rigorous audit procedures, so as to reduce the loss of earnings and reputation caused by audit failure The loss is minimized. At the same time, from the perspective of external legal environment, regulatory authorities and industry associations should strengthen the control of accounting firms. For the auditee, effective corporate governance can mitigate the impact of the importance of customers on auditor independence. In addition, the third-party audit commission mode can be introduced to make the firm maintain its independence and weaken the influence of economic dependence mechanism on audit.

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