Customer Relationship Transaction, External Supervision, and Earnings Persistence Empirical Evidence based on China's Transitional Economy

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Abstract

This paper, based on the 2010 to 2015 A-share listed companies of China as the study sample, studies the following two issues: The first is : How does customer relationship transaction affect earnings persistence? The second is: How does an external oversight mechanism, such as institutional investor holdings and big four audits, regulate the impact of customer relationship transaction on earnings persistence? The study found that the greater the size of customer relationship transaction, the higher the persistence of earnings. Moreover, the external oversight mechanism of the big four audits and institutional investor holdings have further strengthened the significant relationship between customer relationship transaction and earnings persistence. The results show that maintaining a stable relationship between customer transactions can greatly enhance the company's earnings persistence. And also in the process, we show the value-added functions of the external oversight mechanism and the corporate governance effect of institutional investor holdings.

***Keywords*:** Customer relationship transaction, Big four audits, Institutional investor holdings, Earnings persistence

1.Introduction

In a transitional economy that highlights the buyer's market characteristics, the buyer monopoly phenomenon is more prominent due to external legal and market environment constraints. Companies are more willing to cooperate in their business relationships for the long term to control risk. By maintaining this relationship with customers for a long time, the company can improve its accounting prudence and enhance transactions; that is, the company improves earnings persistence through customer relationship transaction (Kormendi and Lipe, 1987). With the increase in customer pressure, the company may use accrued earnings to increase revenue in order to meet key customers for the future and expected development of the enterprise. However, if customers found earnings management excessive in the relationship transaction, then the contract will be damaged, which will affect the company's earnings persistence (Lipe, 1990). Therefore, based on the above customer relationship transaction, on the persistence of both positive and negative experiences, we also need to explore the relationship between companies and customer relations in-depth to maintain results.

External supervision, as a corporate governance mechanism, simultaneously affects the quality of earnings. Investors and regulators can use financial report earnings information to evaluate the operating conditions of listed companies, and simultaneously utilize continuing earnings to estimate future cash flow. We should use accounting information as basis for governance to study the relationship between transactions, which accordingly extends the demand for external supervision by independent auditors and institutional investors.

Furthermore, we examine the impact of institutional investors on earnings persistence. Institutional investors have dual identities as supervisors and stakeholders, which lead us to examine the following issues: Do institutional investors positively impact corporate earnings persistence? Can institutional investors improve the efficiency of listed companies currently in operation? The academic community also draws different findings. Literature on the relationship between external supervision and earnings persistence from the perspective of corporate customer relationship transaction is currently scarce. This paper seeks to make new contributions to these areas.

In view of the above analysis, this paper takes the A-share listed companies from 2010 to 2015 as the research sample to investigate the following two questions: How does customer relationship transaction affect earnings persistence? How does an external oversight mechanism, such as institutional investor holdings and Big Four audits, regulate the impact of customer relationship transaction on earnings persistence? The main contributions of this paper are: First, to expand the study of economic consequences of the transaction. Existing research examines the relationship between relationship transaction and effects of earnings management and internal control on earnings persistence. These studies failed to account for the mechanisms of the above-mentioned factors, and the conclusion is not the same. Some believe that relational transaction provides surplus persistence, whereas others hold that relational transaction reduces earnings persistence. This paper examines the impact of customer relationship transaction on earnings persistence to provide new evidence for the economic consequences of a relationship transaction. Second, this study contributes to provide new evidence for the improvement of corporate governance. As an important mechanism of corporate governance, institutional investors and external auditors play a governing role in the transitional economy with distinctly characterized relations. By examining the role of external oversight mechanism in regulating the relationship between customer relationship transaction and earnings persistence, this paper shows the value added by Big Four audits and the corporate governance effect of institutional investor holdings, thereby providing new evidence to perfect corporate governance and provide new ideas for governance in maintaining relationship transactions of the company.

2. Theoretical analysis and research hypothesis

2.1 Customer relationship transaction and earnings persistence

Earnings persistence is the effect of surplus on future earnings and a characteristic of a stable state of surplus maintained over a long period. Persistence in accounting earnings is a key indicator of users of financial statements. Numerous means to maintain earnings persistence are available, but in a country where the transitional economy, the rule of law, and the market are imperfect, the relationship transaction is a convenient channel.

In terms of efficiency, relationship transaction builds a bridge of trust for the parties involved as an invisible contract (MacLeod, W. B., 2007) and enhances the trust between companies and customers, which can effectively reduce transaction costs and financial risks; thus, financial statements convey more reliable information, which maintains market stability. Raman K. and Shahrur H. (2008) suggested that corporate executives in control of surplus would increase business-related transactions. Yao Y. (2009) argued that the demand for quality enterprise accounting information is directly proportional to customer relationship transactions. Likewise, the quantity of business relationship transactions is positively related to the need for quality accounting information. Chen C. J.et al. (2009) believed that corporate prudence and relationship transaction are correlated. The company's prudence requires a positive correlation with customer-related transaction, and the reduction in opportunistic behavior on both sides is due to the high-quality accounting information that provides credible promise. Thus, the longer the transaction between the two sides, the more durable for the relationship transaction and the more attention companies pay for their long-term interests. From an opportunistic perspective, customer-related transaction must create increased rents for both parties to gain a competitive advantage across the organization. When the proportion of customer relationship transaction is at a high level, corporate executives must apply caution against the psychological manipulation of surplus, which may include risk or opportunism. Raman K. and Shahrur H. (2008) showed that relational contracts reinforce corporate earnings management motivations, which can lead to poor quality of earnings and lower earnings persistence that may influence shareholder interests. Freeman R. and Tse S. (1989) found that to maintain good cooperation, companies must show a high level of profitability in financial statements. Graham C. and Knight J. (2000) reported that when companies are pressured by the expectations of suppliers and customers, they become more willing to use earnings management to meet demands for the company's growth prospects to improve trade relationship. McNichols M. and Stubben R.

(2008) showed that due to relationship transaction, manipulated earnings interfere with the investment decisions of various actors within the firm, which lead to excessive investments. Fairfield P. et al. (2003) found that steady accrual accounting resulted in the current surplus and cash flow and provided a biased estimate of future cash flows, which would affect the company's operating cash flow and reduce earnings persistence. Relationship transactions also increased costs for the appraisal of the company's transactions, which then reduced the company's earnings information content. Relationship transactions, while beneficial to both sides, also add pressure. When suppliers and customers pressure a business, companies are more willing to use and control the accrual surplus to increase revenue and meet the expectations of key customers for the future development of companies. As a result, customer relationship transaction reduces earnings persistence. Asymmetry of information caused by the relationship transaction reduces the reliability of the company's accounting information. The company's customer relationship transaction will inevitably have a negative effect on earnings persistence. Therefore, this paper presents a competitive hypothesis H1:

H1a: As other conditions remain unchanged, the greater the size of customer relationship transaction and the lower the persistence of earnings.

H1b: As other conditions remain unchanged. the greater the size of customer relationship transaction and the higher the persistence of earnings.

2.2 Customer relationship transaction, external supervision, and earnings persistence

a. How do the Big Four audits regulate the relationship between customer relationship transaction and earnings persistence?

Customer relationship transaction needs to use accounting information as basis for governance, and correspondingly extends the demand for audit forensics. The Big Four audit is generally reputed to be worthwhile, because they have high levels of independence and professional competence. The Big Four audits also can negotiate well with customers to reduce pressure from the company's management, thereby providing high quality audit services to customers, increasing the certainty of reported company earnings, and stabilizing the company's surplus. Customers are given higher quality audit services. Reports of company's earnings are increased to determine the company's earnings more smoothly. In comparison to non-Big Four audits, the Big Four audits show a higher level of audit services.

b. How do institutional investor holdings adjust the relationship between customer relationship transaction and earnings persistence?

First, institutional investors are increasingly important for their efficiency in the capital market. Institutional investors stabilize market development and make investment behaviors more rational and reasonable (Yao Y, 2009). Therefore, institutional investors serve as a regulatory function as pillars to lead capital market development toward a good direction. The proportion of institutional investors in China's A-share listed companies has a positive effect on the company's earnings persistence. The higher the company's earnings and accruals, the higher the proportion of institutional investors. Rajgo Pal. S et al. (2002) found that when institutional investors incentivized supervise managers, they reduce agency costs between managers and shareholders. Institutional investors made managers less likely to take control of their earnings, which could enhance the relevance of earnings, and ensure the quality of earnings information. Institutional investors have other advantages that the main body does not have, such as information and money. Institutional investors, as a corporate governance mechanism, have a supervisory role in management; they can constrain executives' self-motivated actions, reduce agency costs, improve the quality of accrued profits, and enhance corporate performance, which have a positive effect on earnings persistence.

Second, from an institutionalist's opportunistic perspective, institutional investors within enterprises varied the level of earnings. Companies with institutional investors were less sustainable than those without institutional investors. The proportion of institutional investors' shareholding negatively affects corporate earnings persistence. Coffee, J. Jr. (1991) and Webb R. et al. (2003) indicated that institutional investors could actively supervise management, not for "absolute goodwill," but to gain immediate benefits. Institutional investors only focused on short-term company performance, which would allow them to invest in decentralization. Wohlstetter and Charles (1993), Porter M. E. (1992), and Bhide A. (1993) argued that institutional investors have a myopic view of benefits, which led to short-term investment behaviors, and capital that flowed rapidly and that are scattered.

These views reduced the enthusiasm for institutional investors to join corporate governance, which helped the management of the business to disclose false information regardless of risk, just to meet the expectations of institutional investors on the business, thereby leading to a collision between the two. Therefore, this paper presents hypothesis H2:

H2a: As other conditions remain unchanged, the customer relationship transaction of Big Four audits can improve the earnings persistence compared with those of non-Big Four audits, thereby demonstrating that Big four audits increase the value.

H2b (1): As other conditions remain unchanged, the higher the proportion of institutional investors, the better the earnings persistence of listed companies with customer relationship transactions, which shows the corporate governance effect of institutional investors.

H2b (2): As other conditions remain unchanged, the higher the proportion of institutional investors, the poorer the earnings persistence of listed companies with customer relationship transactions, which indicates that institutional investors lose corporate governance effect.

3. Research design

3.1 Model establishment

To test the first hypothesis, this research established Model (1):

$$\begin{aligned} \mathrm{Con}_{t+1} &= \alpha_0 + \alpha_1 \mathrm{Con}_t + \alpha_2 Customer + \alpha_3 Customer * \mathrm{Con}_t \\ &\quad + \sum ConVar + \sum Industry + \sum Year + \varepsilon \end{aligned}$$

$$\begin{aligned} \mathrm{Con}_{t+1} &= \alpha_0 + \alpha_1 \mathrm{Con}_t + \alpha_2 Customer + \alpha_3 Customer * \mathrm{Con}_t \\ &\quad + \sum ConVar + \sum Industry + \sum Year + \varepsilon \end{aligned}$$

(1)

To test the second hypotheses, Models (2) and (3) were established, respectively:

$$\begin{aligned} Con_{t+1} &= \beta_0 + \beta_1 \mathrm{Con}_t + \beta_2 Customer \\ &\quad + \beta_3 Customer * \mathrm{Con}_t + \beta_4 Big4 + \beta_5 Big4 * Customer \\ &\quad + \beta_6 Big4 * Customer * \mathrm{Con}_t + \sum ConVar \\ &\quad + \sum Industry + \sum Year + \mu \end{aligned}$$

(2)

$$\begin{aligned} Con_{t+1} &= \gamma_0 + \gamma_1 \mathrm{Con}_t + \gamma_2 Customer + \gamma_3 Customer * \mathrm{Con}_t + \gamma_4 Inst \\ &\quad + \gamma_5 Inst * Customer + \gamma_6 Inst * Customer * \mathrm{Con}_t \\ &\quad + \sum ConVar + \sum Industry + \sum Year + \mu \end{aligned}$$

(3)

Definition of variables: Earnings persistence (Con) was obtained from the related literature (Charles et al. 2001; Feltham G. et al., 1995). We use the ratio of the standard deviations of the operating profit and the net profit margin of the company's operating activities to measure the surplus level. The earnings persistence is delayed to eliminate the effects of endogeneity.

Explanatory variables: Customer relationship transaction (customer) represents the proportion of the total sales from companies to the top five customers. External supervision includes Big Four audits and institutional investors. Big Four audits (big4) represent a high quality audit dummy variable. If the company's annual report was audited by the Big four audits, a value of "1" is assigned, and "0" otherwise.

Institutional investor holdings ratio (Inst) is the proportion of institutional investor holdings to outstanding shares as a substitute variable. With reference to the literature, this article controls the following other variables, as shown in Table 1.

Table 1 Variable Definition Table

Variable type	Variable name	Variable description
dependent variable	Con_{t+1}	Ratio of the standard deviation of operating profit of period t + 1 to the standard deviation of net cash flow from operating activities
independent variable	Con_t	Ratio of the standard deviation of operating profit of period t to the standard deviation of net cash flow from operating activities
	Customer	Total value of the sales ratio of the top five customers
	Big4	High quality audit dummy variable. If the annual report is audited by the Big Four, it is assigned to 1, and 0 otherwise
	Inst	Institutional investors' shareholding ratio. The proportion of the number of shares held by institutional investors and the number of outstanding shares
control variable	Top	Proportion of the largest shareholder of shares
	Zindex	Degree of equity checks and balances, the proportion of the second largest shareholder, and the proportion of the largest shareholder
	Intan	Proportion of intangible assets to total assets
	Roa	Profit level, the company's total net profit margin
	State	State-owned shares, where 1 is state-owned and 0 is non-state-owned
.	Cost	Cost structure and depreciation/operating income, where if depreciation is negative, then it is set at 0
	Fix	Fixed assets investment scale, fixed assets investment/total assets
	Turnover	Total assets turnover, equal to total operating income/assets
	Size	Enterprise size, natural logarithm of the total assets
	Lev	Debt ratio, total number of liabilities/assets
	Growth	Growth capacity, (current operating revenue - previous year operating income)/last year's operating income
	Age	Company age, natural logarithm of company year
	Industry	Dummy variable of the industry
	Year	Dummy variable of the year

3.2 Sample selection and data sources

This paper takes A-share listed companies in China from 2010 to 2015 as the research sample. The data of customer relationship transaction were collected manually. The National Tai'an and Wind information databases were used to find relevant financial data. The primary sample was removed and filtered as follows: (1) financial enterprises, (2) exclude listed companies after 2010 to ensure that each company has 5 observation years, (3) remove ST companies, and (4) eliminate companies with missing financial data. Finally, 8488 observations were obtained. Winsorize processing was performed for data with less than 1% quantiles and greater than 99% quantiles for all continuous variables to eliminate the effects of extreme values. Stata13.0 software was used to statistically analyze data. MS Excel was utilized to sort and process data.

4. Regression test and result analysis

4.1 Descriptive statistical analysis

The descriptive statistics in Table 2 show that the mean sample company's earnings index (Cont + 1 and Cont) are 0.52 and 0.49, respectively. Both are less than 1, which means that the average operating profit fluctuation coefficient of the sample company is lower than the cash flow volatility coefficient. The top five customer sales ratio (Customer) mean is 28%, which means that China's listed companies and the top five customers have high proportions of transaction. Listed companies highly rely on the top five customers. Overall, China's listed companies and the top five customers have a concentrated transaction. The average institutional investor holdings (Inst) show that the average proportion of institutional investors is 7%, whereas the extreme value is 88%. The proportion of institutional investors is relatively large. These findings provide a good opportunity for this article.

Table 2 Descriptive Statistics

variable	sample size	minimum value	average value	Median	Maximum value	standard deviation
Con_{t+1}	8488	0	0.520	0.280	26.54	1.080
Con_t	8488	0	0.490	0.270	96.59	1.400
customer	8488	0	0.280	0.220	1	0.220
inst	8488	0	0.070	0.0400	0.880	0.100
zindex	8488	0	0.600	0.430	3.920	0.570
cost	8488	0	0.040	0.030	2.750	0.060
fix	8488	0	0.230	0.200	0.970	0.170
intan	8488	0	0.050	0.030	0.900	0.070
turnover	8488	0	0.690	0.560	8.790	0.560
size	8488	17.81	22.09	21.90	28.51	1.300
lev	8488	0.010	0.450	0.450	1.100	0.210
growth	8488	-0.950	18.18	0.130	13.00	1.470
top1	8488	0.0400	0.370	0.350	0.890	0.160
roa	8488	-3.990	0.0500	0.0400	4.840	0.090
age	8488	0	1.960	2.300	3.180	0.910
big4	8488	0	0.930	1	1	0.250
state	8488	0	0.0700	0	1	0.260

4.2 Correlation analysis

Pearson correlation between each major variable is not large, as seen in Table 3. Variables are non-collinear. Customer relationship transaction (customer) has a positive impact on corporate surplus, which indicates that the former can improve earnings persistence. Big Four audits, institutional investor holdings, and quality of earnings have positive relationships. The tests performed between the two variables are preliminary tests. The model will be tested more rigorously in the succeeding sections.

Table 3 Relational Analysis

	Con_{t+}	Con_t	customer	inst	zindex	cost	fix	intan	turnover	size	lev	growth	top1	roa	age	big4	state
Con_{t+}	1																
Con_t	0.307***	1															
customer	0.050***	0.031***	1														
inst	0.00100	0.0110	-0.025**	1													
zindex	0.034***	0.033***	0.00700	0.037***	1												
cost	0.171***	0.161***	0.147***	-0.036***	0.0150	1											
fix	0.054***	0.052***	0.046***	0.00100	-0.049***	0.611***	1										
intan	0.065***	0.067***	0.00100	-0.0120	0.00400	0.149***	0.073***	1									
turnover	-0.155***	-0.152***	-0.137***	0.072***	-0.076***	-0.381***	0.030***	-0.041***	1								
size	-0.030***	-0.0120	-0.146***	0.081***	-0.154***	0.038***	0.111***	-0.027**	0.055***	1							
lev	-0.070***	-0.057***	-0.116***	0.0160	-0.175***	-0.061***	0.074***	-0.046***	0.163***	0.521***	1						
growth	-0.028**	0.044***	0.046***	0.036***	0.045***	-0.069***	-0.051***	0.00100	0.059***	0.027**	0.059***	1					
top1	-0.031***	-0.0110	0.00600	-0.0140	-0.634***	-0.00300	0.054***	-0.0130	0.077***	0.282***	0.062***	0.030***	1				
roa	0.0160	0.058***	-0.038***	0.109***	0.072***	-0.156***	-0.139***	-0.00900	0.100***	-0.051***	-0.394***	0.190***	0.077***	1			
age	0.074***	0.075***	-0.057***	0.093***	-0.239***	0.056***	0.108***	0.054***	0.090***	0.291***	0.441***	-0.034***	-0.083***	-0.165***	1		
big4	0.102	0.0140	0.065***	-0.117***	0.024**	-0.0170	-0.063***	-0.039***	-0.038***	-0.391***	-0.113***	0.026**	-0.151***	-0.027**	-0.063***	1	
state	0.039***	0.052***	-0.066***	0.055***	0.024**	0.030***	0.055***	0.024**	0.0100	0.306***	0.101***	-0.029***	0.051***	-0.0130	0.161***	-0.449***	1

Note: *, * *, and * * * means 10%, 5%, and 1% significant levels, respectively.

4.3 Analysis of multiple regression results

In the first column of Table 4, we examined the role of customer relationship transaction in the persistence of corporate earnings while controlling for other corporate characteristics, as well as annual and industry attributes that may affect earnings persistence. The current period's surplus (Con_t) is positively correlated with the surplus of the succeeding period (Con_{t+1}). Customer relationship transaction has a positive effect on earnings persistence (Con_{t+1}). Customer relationship transaction (customer) is positively correlated with the next period's surplus (customer × Con_t) at 1% level, which indicates that the larger the customer relationship transaction, the higher the persistence of the firm's earnings. Customer relationship transaction forms a community comprising the interests of listed companies and of customers.

The two sides of the transaction have a significant impact on their respective development strategies, operating conditions, and future development. Once misjudged, customer relationship transactions may lead to losses on both sides. The two sides must strive to maintain the relationship as the market develops, and to strive to win. Assume that H1 is validated.

Table 4: Regression of Customer Relationship Transaction, External Supervision, and Earnings Persistence

	Con_{t+1}		
Con	0.246*** (12.82)	0.250*** (12.95)	0.245*** (12.74)
customer	0.357*** (4.50)	0.360*** (5.45)	0.408*** (5.19)
big4		0.406*** (3.21)	
inst			0.301*** (6.02)
Customer × Con	0.214*** (4.29)	0.226*** (4.43)	0.158*** (2.91)
big4 × customer		0.616** (2.85)	
big4 × customer × con		0.420** (2.35)	
Inst × customer			0.936** (2.99)
Inst × customer × con			0.871** (2.44)
zindex	0.046*** (2.80)	0.046*** (2.81)	0.047*** (2.84)
cost	1.520*** (6.79)	1.513*** (6.76)	1.530*** (6.84)
fix	-0.098* (-1.92)	-0.094* (-1.83)	-0.099* (-1.94)
intan	0.268** (2.30)	0.261** (2.25)	0.258** (2.22)
turnover	-0.091*** (-5.79)	-0.092*** (-5.82)	-0.091*** (-5.74)
size	-0.015** (-2.16)	-0.015** (-2.20)	-0.014** (-2.08)
lev	-0.137*** (-3.21)	-0.138*** (-3.22)	-0.139*** (-3.24)
growth	-0.040*** (-2.66)	-0.040*** (-2.68)	-0.039*** (-2.63)
top1	0.095 (1.57)	0.095 (1.57)	0.098 (1.62)
roa	0.250 (1.52)	0.243 (1.48)	0.231 (1.41)
age	0.066*** (7.53)	0.066*** (7.58)	0.066*** (7.55)
state	0.053* (1.89)	0.051* (1.82)	0.052* (1.87)
Ind/Year	control	control	control
Constant	0.549*** (3.62)	0.569*** (3.70)	0.525*** (3.45)
F value	72.45	65.16	65.46
Observations	8488	8488	8488
Adj-	0.125	0.126	0.126

Note that the t values in parentheses are adjusted for heteroscedasticity. *, **, and *** represent representable at 10%, 5%, and 1%, respectively.

In the second column of Table 4, we examined the modest effect of the Big Four audits on the relationship between relationship transaction and earnings persistence. The regression shows the following: the Big four audits (big4) are significantly positive at the 1% level; the regression coefficient of current earnings (Con_t) is significantly positive (0.250); the regression coefficient of the multiplicative terms (customer × Con_t) is significantly positive (0.226); the regression coefficients of the Big Four audits and customer relationship transaction (customer × big4), and the regression coefficients (customer × big4 × Con_t) of the Big Four audits and current earnings (Con_t) are 0.616 and 0.420, respectively, and they are positively correlated at the 5% level. This finding shows that under the combined action of customer relationship transaction, high quality audit, and current period's surplus, customer relationship transactions are supervised by high quality audit; furthermore, customer relationship transactions that seriously damage the interests of listed companies are carried out, which can estabilize the company's earnings of next period and continuously improve the company's earnings. Therefore, the customer relationship transaction of the Big Four audits improved earnings persistence, which verified H2a:

In the third column of Table 4, we examined the regulatory effect of institutional investor holdings on the relationship between customer relationship transaction and earnings persistence. The regression results of institutional investor holdings (Inst) are significantly positive at 1%. The regression coefficient (0.245) of the current-period's surplus (Con_t) is significantly positive. The reciprocal regression coefficient (customer × Con_t) 0.158) is significantly positive. The regression coefficients of institutional investor holdings and customer relationship transactions (customer × Inst) and the regression coefficients (customer × Inst × Con_t) of institutional investor holdings and current-period surpluses (Con_t) are 0.936 and 0.871, respectively, and they are positively correlated at 5% level. Considering corporate governance factors, institutional investors can restrict the behavior of senior managers using surplus to increase their own interests. Institutional investors have good external governance effect, and they improve the quality of accrual profits and reduce the agency costs, which positively affect the company's earnings persistence. We verified H2b(2).

4.4 Robustness test

The following robustness tests were conducted to ensure the reliability of the regression results: (1) The impact of customer relationship transaction on listed manufacturing companies is greater than the impact of listed non-manufacturing companies. We removed the listed non-manufacturing companies and retained listed manufacturing companies in the sample to study the object of its re-return. The results remained unchanged. (2) We retained corporate surplus cash as a surrogate variable to account for the extent to which current surplus of the company continues to the future, for the relative size of the cash and accrued items in the current surplus, and when the sustainability of the cash flow is higher than the accruals. Results remain essentially unchanged. The regression analysis in this paper are robust, and thus, reliable.

5. Research conclusion and limitations

Based on the A-share listed companies from 2010 to 2015, this paper examined the impact of customer relationship transaction on the corporate earnings persistence and the regulatory role of its external oversight mechanism. The study found that the size of customer relationship transaction and the persistence of corporate earnings were positively correlated. Further examination indicated that the Big Four audits and institutional investors have significantly, positively regulated the relationship between relationship transactions and earnings persistence, which played a role in the governance of external oversight mechanism. The results showed that: First, long-term trading relationships established between companies with customers can improve the audit requirements, which allow companies to develop healthily and steadily, gain more benefits, and improve earnings quality and sustainability. Second, for external supervision, companies necessitate institutional investors for monitoring, and high-quality audit services to obtain higher quality surplus, which can add value, and its corporate governance effect can reduce the uncertainty of the company's earnings report and optimize the internal and external governance structure of listed companies' interactive role.

This paper has the following limitations: (1) Numerous ways to measure earnings persistence variables at domestically and internationally are available, but no authoritative measure exists. A method to measure corporate earnings persistence is also worthy of further consideration. (2) Many factors affect the corporate earnings persistence, and some difficult factors can be quantified. Methods to identify and control these factors more accurately in the empirical research should be further improved.

6. Acknowledgement

This research was financially supported by the National Natural Science Foundation of China(Grant NO. 71572002 and 71272220).

Note: The article will be published in black and white

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