

Strategic deviation degree, internal control and accounting information quality

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Abstract

Based on the market situation in China, this paper selected the A-share motherboard listed companies from 2014 to 2017 as samples, and analyzed the impact of corporate strategic deviation and internal control quality on accounting information quality from accrual quality. Research findings :(1) the more the company strategy deviates from the industry conventional strategy, the lower the quality of accounting information; (2) improving the quality of internal control can significantly inhibit the weakening effect of corporate strategic deviation on the quality of accounting information. The above conclusions have important implications for promoting the company's strategic information disclosure system, strengthening the company's internal

Keywords

Strategic deviation degree, internal quality control, accounting information quality, accrual quality.

1. Introduction

Existing evidence shows that the implementation of convergent accounting standards improves the quality of financial information. However, the principle orientation of current accounting standards leaves more room for companies to make professional judgments and choose methods. Because the information processing rules used by different accounting entities are different, the quality of accounting information generated by them is also uneven. Therefore, under the background of convergence of standards, it is very necessary to study which idiosyncratic factors affect the quality of financial information at the company level.

Dichev et al. believe that corporate strategy is an important factor affecting the quality of financial information [1]. Every industry will form regular strategies in the process of continuous operation, and conventional strategies within the industry are generally more acceptable to stakeholders. However, due to the differences in resource endowment, business philosophy and objectives, each company will form its own strategy, thus deviating from the industry conventional strategy. The degree to which a company's strategy deviates from the industry conventional strategy is called the degree of strategic deviation [2]. The more deviated from the conventional strategy, the more likely the company will face risks, and the more likely the business will have particularity, which will lead to the uncertainty of accounting method selection. Therefore, we expect that the deviation degree of corporate strategy will lead to the decline of accounting information quality. The effect of the company's strategic deviation degree on the financial information output may be affected by the quality of the company's internal control. As a control system to implement the company's strategic objectives, internal control can reduce the uncertainty that may be brought in the process of strategy implementation by means of risk assessment, process control, analysis and evaluation, assessment and incentive. In addition, the internal control will directly influence the quality of financial information, because the company internal control of an important goal is to improve the quality of financial information. However, the current research has paid little attention to the relationship between corporate strategy and accounting information quality. Therefore, this paper analyze and test

the relationship between corporate strategic deviation degree, internal control quality and accounting information quality.

2. Theoretical Analysis and Research Hypothesis

Chandler et al. pointed out that strategy is the company's planning around its long-term goals, including the actions taken to achieve the goals and the way of resource allocation [3]. Every industry will form regular strategies in the continuous operation process, and the conventional strategies within the industry are generally more acceptable to stakeholders. However, due to the differences in resource endowment, business philosophy and objectives, each company will form its own strategy and thus deviate from the conventional strategy of the industry. Unconventional strategy strengthens the heterogeneity of companies by integrating their resources and processes to form unique competitive advantages. The strategy deviating from the industry conventions will aggravate the uncertainty faced by the company's operation and management, making it more difficult to judge the nature and consequences of the economic business and events that occur, thus making the selection of accounting methods more uncertain, and ultimately affecting the quality of financial information output. Based on this, we propose hypothesis H1:

H1: The bigger the company's strategic deviation, the lower the quality of financial information.

Good internal control can reduce the uncertainties that may exist in the process of strategy implementation. The uncertainty brought by the deviation of corporate strategy from the industry's conventional strategy is a kind of corporate idiosyncratic risk, which is caused by the deviation of the company's resource allocation from the industry's average level. Compared with external factors, it is more controllable, and the risk can be controlled within a reasonable range through effective internal control. Based on the above analysis, we propose the following hypothesis H2:

H2: High-quality internal control will weaken the negative impact of corporate strategic deviation on the quality of financial information.

3. Research Design

3.1 Sample Selection

This paper chooses all non-financial A-share listed companies from 2014 to 2017 as research samples. Among them, excluding incomplete data samples, financial and insurance industries, outliers. All the data in this paper are from CSMAR database.

3.2 Variable Design

3.2.1 Explained Variables

This study adopts Jones modified model to measure the earnings quality, and adds ROA to the first step regression of Jones model to control the impact of earnings. The specific calculation formula is as follows:

$$\frac{TA_{i,t}}{A_{i,t-1}} = \frac{\alpha_1}{A_{i,t-1}} + \frac{\alpha_2(\Delta REV_{i,t} - \Delta REC_{i,t})}{A_{i,t-1}} + \frac{\alpha_3 FA_{i,t}}{A_{i,t-1}} + \frac{\alpha_4 IA_{i,t}}{A_{i,t-1}} + \alpha_5 ROA_{i,t} + \varepsilon_t \quad (1)$$

Where:

$TA_{i,t}$: the total accrued profits of listed company i in the t year;

$A_{i,t}$: the total assets;

$\Delta REV_{i,t}$: the difference of income change;

$\Delta REC_{i,t}$: the difference between the amounts of accounts receivable;

$FA_{i,t}$: the scale of fixed assets;

$IA_{i,t}$: the scale of intangible assets.

The model (1) is regressed to obtain the model estimation coefficients of different industries. The coefficients is brought into the model (1) again, and the positive accrued profit of the company($DNA_{i,t}$) is obtained. On this basis, the absolute value of the difference between $TA_{i,t}$ and $DNA_{i,t}$ is the estimated abnormal profit ($ABS-DA_{i,t}$). The smaller the value of abnormal accrued profits is, the higher the accrued quality is, which means that the higher the quality of accounting information is.

3.2.2 Explanatory Variables

DS: degree of strategic deviation. Tang use the following six indicators to reflect the company's resource allocation structure: advertising intensity (sales expenses/total operating income); R&D intensity (intangible assets/total operating income); capital intensity (fixed assets/number of employees); fixed assets renewal degree (net fixed assets/original fixed assets); management cost input (management expenses/total operating income); Interest-bearing debt leverage [(Short-term borrowing + Long-term borrowing+ Bonds payable)/net assets][2]. In this paper, the strategic deviation degree is calculated according to the following steps. First, these indicators are standardized by year and industry, and then absolute values are taken. Second, we sum up the six dimensions of standardized indicators of each company, and then get the average value, that is DS. The larger the index, the greater the deviation of corporate strategy from the industry's conventional strategy.

IC: internal control quality. Shenzhen DiBo Enterprise Risk Management Technology Co., Ltd. launched the "DiBo China Listed Companies Internal Control Index" which covers five aspects: the results of corporate strategy implementation, business returns, authenticity and integrity of information disclosure, legality and compliance of business, capital security. And according to the material internal weakness to supplement and amend. In fact, the index reflects the specific performance of the effective implementation of internal control. Therefore, we choose to use this index to measure the quality of internal control.

3.2.3 Control Variables

This paper comprehensively reviews the existing studies and selects other variables that may affect the quality of financial information except the degree of strategic deviation and the quality of internal control. Specific definitions are shown in Table 1.

3.3 Regression model

$$ABS - DA_{i,t} = \alpha_0 + \alpha_1 DS_{i,t} + \beta Controls + \varepsilon_{i,t} \tag{2}$$

$$ABS - DA_{i,t} = \alpha_0 + \alpha_1 DS_{i,t} + \alpha_2 IC_{i,t} + \alpha_3 IC_{i,t} \times DS_{i,t} + \beta Controls + \varepsilon_{i,t} \tag{3}$$

Model (2) is used to test hypothesis H1, that is, the impact of corporate strategic deviation on the quality of financial information. The coefficient of DS in the model is α_1 , which is expected to be positive. Model (3) is used to test hypothesis H2, that is, the moderating effect of internal control quality on the impact of corporate strategic deviation on the quality of financial information. The coefficient α_3 of the intersection term(DS×IC) in the model is examined and is expected to be negative.

Table 1 Specific Definition of Variables

	Variable code	The variable name	Calculation method
Explained variable	ABS-DA	Abnormal accrued profit	The variable is estimated by cross-sectional modified Jones model and adjusted by ROA.
Explanatory variables	IC	Internal control quality	This variable uses the annual internal control index disclosed by DiBo database and takes natural logarithm.
	DS	Degree of strategic deviation	The calculation method is detailed above.

Control variables	SIZE	The enterprise scale	The natural log of the total assets at the end of the year.
	LEV	Asset-liability ratio	Total asset-liability ratio.
	MHOLD	Management shareholding	Management shareholding ratio at the end of the year.
	TOP	Equity concentration	Equity concentration at the end of the year is equal to the shareholding ratio of the largest shareholder.
	BOARD	Board size	Number of directors at the end of the year.
	INDDIR	Proportion of independent directors	Proportion of independent directors at the end of the year.
	BIG4	Auditor type	International "big four" take 1, otherwise take 0.
	INST	Institutional ownership	The proportion of shares held by institutional investors in the total share capital at the end of the year.
	SOE	Ultimate owner type	At the end of the year, the nature of the ultimate owner is state-owned, take 1, otherwise take 0.
	INDUSTRY	Industry fixed effect	Industry dummy variables, referring to the industry classification standards of the Securities Regulatory Commission in 2001. In addition to the manufacturing industry to take a double-digit code, other industries take a single-digit code.

4. Empirical Results and Analysis

4.1 Descriptive Statistics and Correlation Analysis

4.1.1 Descriptive Statistics

Descriptive statistics of major variables are shown in Table 2. In the entire sample group, the mean of ABS-DA is 0.0765, indicating that the average share of discretionary accruals is by 7.65% of the total assets, it indicates that China's listed companies have some earnings management behaviors, and the accrual quality needs to be improved. From the perspective of the mean of DS(0.5895) and standard deviation(0.4090), the differences between companies are also large. The mean of IC is 6.6601, which indicates that the internal control quality of Chinese listed companies is generally good. From the statistical characteristics of other control variables, most of the control variables have relatively large degree of variation. In addition, we also calculated the variance inflation factor VIF values of the main variables, most of which were within 2 and far less than 10, indicating that there was no serious multicollinearity in the model.

Table 2 Descriptive Statistics

Variable	Observations	Mean	Median	Standard deviation	Max	Min
ABS-DA	5336	0.0765	0.0539	0.0757	0.0013	0.3532
IC	5336	6.6601	6.7203	0.9728	8.1948	4.0805
DS	5336	0.5895	0.4950	0.4090	4.9245	0.0675

SIZE	5336	22.0050	21.8400	1.2745	27.22	16.4150
LEV	5336	0.4985	0.4925	0.1984	0.0929	0.9570
MHOLD	5336	0.0965	0.0064	0.1623	0.6409	0.0000
TOP	5336	36.1341	33.7168	16.1209	2.1966	89.4089
BOARD	5336	9.1131	9.0000	1.8596	17.0000	5.0000
INDDIR	5336	0.3676	0.3332	0.2794	0.5712	0.0527
BIG4	5336	0.0538	0.0000	1.0000	0.0000	0.2259
INST	5336	4.7419	3.0204	0.0000	21.815	4.9997
SOE	5336	0.6543	1.0000	0.0000	1.0000	0.4754

4.1.2 Analysis of Correlation

Table 3 correlation coefficients

Variable	ABS-DA	IC	DS	SIZE	LEV	MHOLD	TOP	BOARD	INDDIR	BIG4	INST	SOE
IC	-0.0405***	1										
DS	0.1235***	-0.0637***	1									
SIZE	-0.0046***	0.2519***	-0.0567***	1								
LEV	0.0248***	-0.0116	0.0391***	0.4082***	1							
MHOLD	-0.1255***	-0.0094	-0.0145	-0.1344***	-0.1671**	1						
TOP	0.0329**	0.0012	-0.0031	0.0355***	0.0213**	-0.0589***	1					
BOARD	-0.1021***	0.1166***	-0.0074	0.2626***	0.1303***	-0.1218***	-0.0112	1				
INDDIR	-0.0045	0.0103	0.0418***	0.0615***	0.0074	0.0529***	0.0297**	-0.3226***	1			
BIG4	-0.0245**	0.0209	0.005	0.027***	-0.0298***	0.0161	0.0069	0.0245	0.0049	1		
INST	-0.1072***	0.2147***	-0.0839***	0.0642***	-0.0308*	-0.0079	-0.0061	0.0117	-0.0136	-0.002	1	

SOE	- 0.062 5***	0.094 4***	0.004 8	0.037 9***	- 0.058 2***	0.063 7***	0.02 91**	- 0.001 5	- 0.045 2***	- 0.046 4***	- 0.057 2***	1
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Table 3 shows the Person coefficients between variables. It can be seen that DS has a significant positive correlation with abnormal profits, and the correlation coefficient is 0.1235. It preliminarily shows that the deviation of corporate strategy from industry conventional strategy may lead to the decline of financial information quality. However, since the correlation between the two does not necessarily mean that our hypothesis is valid, multiple regression tests are still needed after controlling for the influence of other factors. In addition, the correlation coefficients between all explanatory variables and control variables are relatively small, indicating that there is no serious multicollinearity problem.

4.2 Multiple Regression Analysis

Column (1) of table 4 reports the results of the mixed OLS regression on model (2), in which a clustering adjustment is made at the company level, while industry and annual effects are controlled. It can be seen that after controlling for other variables, the company's strategic deviation degree DS is significantly positively correlated with ABS-DA at the level of 1%, that is, the company's strategic deviation degree DS is negatively correlated with the quality of financial information. DS coefficient is 0.002, indicating that for each standard deviation increase (standard deviation is 0.4090) of the company's strategic deviation degree, the manipulated earnings (standard deviation is 0.0757) will increase by 0.0108 standard deviations (0.0108=0.002 0.4090/0.0757). The above results show that, with other conditions unchanged, the greater the company's strategic deviation, the lower the quality of financial information, which supports hypothesis H1.

In order to further test whether the improvement of internal control quality can weaken the negative impact of corporate strategic deviation on the quality of financial information, we firstly de-centralizes IC and DS to obtain the Interaction item IC×DS. Then, DS and IC×DS are added to the model (2) to establish the model (3), and mixed OLS regression is carried out. The regression results are shown in column (3) of Table 4. It can be seen that DS still shows a significant positive impact on ABS-DA at the level of 1%, while IC also shows a significant negative impact on ABS-DA at the level of 1%, while IC×DS regression coefficient is significantly positive at the level of 1% after considering the direct impact of DS, IC and other factors. It shows that under other conditions unchanged, high-quality internal control can weaken the decline of financial information quality caused by the deviation of corporate strategy from industry conventional strategy, thus supporting hypothesis H2. In addition, the statistic Adj-R2 which represents the goodness of fit of the model is more than 30%, which shows that our model setting is better.

Table 4 Regression Results

variable	ABS-DA	
	(1)	(2)
IC		-0.003*** (-4.41)
DS	0.002*** (5.63)	0.001*** (4.56)
DS×IC		0.009*** (5.72)
SIZE	-0.001*** (-4.94)	-0.001*** (-6.43)
LEV	0.002*** (2.08)	0.002*** (2.11)

MHOLD	-0.001 (-0.62)	-0.001 (-0.48)
TOP	0.000*** (2.82)	0.000*** (2.73)
BOARD	-0.001 (-1.62)	-0.001 (-1.22)
INDDIR	-0.001 (-0.21)	-0.000 (-0.17)
BIG4	-0.000** (-2.25)	-0.000** (-2.03)
INST	-0.000*** (-4.04)	-0.000*** (-3.98)
SOE	-0.000 (-0.27)	-0.000 (-0.29)
YEAR	control	control
INDUSTRY	control	control
Constant term	0.004* (1.53)	-0.014*** (-2.83)
N	5336	5336
Adj-R2	0.339	0.351

Note: the value in brackets is t-statistic, ***, ** and * respectively represent significant at the level of 1%, 5% and 10%. All results have been adjusted by clustering at the company level.

5. Conclusion

This paper conducts theoretical analysis and empirical test on the company's strategic deviation degree, internal control quality and accounting information quality. The research findings are as follows: (1) the degree of corporate strategic deviation is negatively correlated with the information quality of the accounting system; (2) high-quality internal control can reduce the negative impact of deviating from the industry's conventional strategy on the quality of financial information.

The above conclusions have the following implications for us : (1) for regulators and standard setters, they should speed up the formulation of relevant policies to promote listed companies to disclose more information related to strategies, so as to help stakeholders better understand the information of financial reports. (2) for users of financial reports, they should pay attention to the collection and analysis of strategic information disclosed by the company and internal control information before making financial decisions, so as to make correct decisions with better use of financial report information. (3) for the management level, when evaluating the competitive advantage brought by the company's deviation from the industry conventional strategy, it should pay attention to the resulting reduction in the quality of financial information, and comprehensively consider the advantages and disadvantages brought by the unconventional strategy, so as to formulate a strategy more in line with the long-term interests of the company.

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