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Analysis of the impact of Information Disclosure Violation on audit opinions and audit fees of listed companies

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Abstract: In the first half of 2018, there were 63 cases of information disclosure violations in listed companies, accounting for nearly 40% of the administrative penalties imposed by the SFC. This paper takes information disclosure violations as a starting point to investigate the impact of corporate information disclosure violations on audit opinions and audit fees. We choose the data of manufacturing listed companies from 2012 to 2017 for regression analysis, and the results show that there is a significant positive correlation between information disclosure violation and non-standard audit opinions issued in the same year, audit fees in the same year and subsequent years. The results show that audit verification of accounting firms can identify violations of corporate information disclosure, and make appropriate “response” through audit opinions and audit fees.

1. Introduction

The Information Disclosure of the Listed Firm is in chaos, such as delaying information disclosure, wrong information disclosure. It not only causes the loss to the stakeholders in the securities trading, but also decreases the credibility of the relevant information disclosure institution.

For auditors, if they fail to conduct auditing strictly with the application of the relevant laws, not only will they suffer the pressure from the social public, but also take serious legal liabilities. Therefore, whether the violation of information disclosure will affect the audit opinions issued and what changes will be made to the relevant audit fees, are worth of our detailed investigation.

2. Definition and types of information disclosure violation of listed companies

Information disclosure refers to the act of listed company to release its assets and operating results in a specific time and method through specified media intermediary (Jianbin Xu, 2016). Information disclosure violations refer to the listed companies violate laws and regulations by failing to make due disclosure at the specified time and place with specified requirements.

Therefore, information disclosure violation of listed companies is generally divided into two categories, "false statements" and "delayed disclosure". The information disclosure violations includes dishonest information disclosure, incomplete information disclosure, delayed information disclosure and non-standard information disclosure.

3. Empirical Analysis Design

3.1 Research hypothesis

According to some relevant researches, audit opinions have obvious value relevance. The response of the market to non-standard audit opinions is stronger compared to the response of the market standard audit opinions, so the type of audit opinions is considerable for report users (Yuangang Duan, Bo Chen, 2017). Therefore, this paper proposes:

H1: when it comes to information disclosure violations of listed companies, there is a higher probability of the proposition of non-standard audit opinions increased that year.

From the perspective of audit work, auditors usually need to charge higher audit fees to compensate for the loss caused by the audit failure or execute additional audit procedures to reduce

the audit risk. An additional audit procedure will increase the audit cost. As a result, this paper proposes that:

H2-1: when it comes to the information disclosure violations of listed companies, the audit fees charged by accounting firms in that year are higher.

In the following year of information disclosure in violation, the auditor may continuously focus on previous violations of the auditing units, arguing that there are potential risks for audited financial statements, further substantive tests will be taken to determine risks, increasing the audit fees. Therefore, this paper proposes:

H2-2: when it comes to the information disclosure violations of listed companies, the audit fees charged by accounting firms are higher in the next year.

3.2 Sample selection and data sources

The standards of auditing fees vary greatly among various industries. Industry type of manufacturing industry was chosen for facilitate comparison and observation samples of listed manufacturing companies from 2013 to 2016 are selected. However, the actual sample data from 2012 to 2017 are used because the previous audit opinion and the audit fees in the next year respectively need the data of the previous year and the next year. Finally, the listed companies with negative total assets or net assets and the listed companies with missing or abnormal relevant data are eliminated, as shown in table 1.

Table 1 General samples situation

Year	Violation samples		Non-violation samples		Total
2013	81	6.66%	1136	93.34%	1217
2014	57	4.13%	1322	95.87%	1379
2015	90	7.09%	1179	92.91%	1269
2016	84	5.83%	1358	94.17%	1442
Total	312	5.88%	4995	94.12%	5307

3.3 Variable definition and model construction

3.3.1Variable definition

Table 2 Variable definition

Types		Name of variable	Symbol	Variable calculation
Explanatory variables		Violate information disclosure or not	Punish	1 represents for yes, 0 represents for no
Explained variable		Audit opinions	Opinion	Standard audit opinion is set to 0, while others are set to 1
		Audit fees natural logarithm in the year	InFee	Audit fees natural logarithm in the year
		Audit fees natural logarithm in next year	InNextFee	Audit fees natural logarithm in next year
Control variables	Business complexity	The company size	Size	The natural logarithm of total assets
		The proportion of accounts receivable in total assets	Arr	Account receivables/Total assets
		The proportion of inventory in total assets	Invr	Inventory/Total assets
	Financial risk	Asset-liability ratio	Lev	Liability/Total assets
		Current ratio	Cur	Current assets/Current liability
	Profitability	Return on net assets	Roe	Earnings after tax/Net assets
	Accounting firm factors	Last audit opinion	Last Opinion	The audit opinion of last period standard is 0, and the other is 1
		If it's "Big4"	Big4	"The Big4"is 1, and the other is 0
	Others	Loss or not	Loss	Loss is 0, and the other is 1

3.3.2 Model construction of audit opinions

$$Opinion=\beta_0+\beta_1 Punish+\beta_2 Size+\beta_3 Roe+\beta_4 Lev+\beta_5 Loss+\beta_6 Big4+\beta_7 Arr+\beta_8 Invr+\beta_9 Cur+\beta_{10} LastOpinion+\varepsilon \quad (1)$$

3.3.3 Model construction of audit fees Empirical results and analysis

$$InFee=\beta_0+\beta_1 Punish+\beta_2 Size+\beta_3 Roe+\beta_4 Lev+\beta_5 Loss+\beta_6 Big4+\beta_7 Arr+\beta_8 Invr+\beta_9 Cur+\beta_{10} LastOpinion+\varepsilon \quad (2\text{-}1)$$

$$InNextFee=\beta_0+\beta_1 Punish+\beta_2 Size+\beta_3 Roe+\beta_4 Lev+\beta_5 Loss+\beta_6 Big4+\beta_7 Arr+\beta_8 Invr+\beta_9 Cur+\beta_{10} LastOpinion+\varepsilon \quad (2\text{-}2)$$

4. Empirical results and analysis

4.1 Descriptive statistics

As it was shown in table 3, a general descriptive analysis of the sample is taken first. The mean of Punish is 0.0588 which indicates the proportion of samples with violations is 5.88%. The mean of the Opinion is 0.0239, which indicates the probability of non-standard audit opinions issued by the listed company is only 2.39%. According to the minimum, maximum and mean values of Size, Arr, Invr, Lev, Cur and Roe, the corresponding financial indicators of each sample are significantly different due to the company's asset size and operating conditions. The mean values of Loss and Big4 are 0.9533 and 0.0456 respectively, indicating that 95.33% of listed companies have no loss in the overall sample, and 4.56% of the audit reports of listed companies were issued by "Big 4 accounting firms".

Secondly, based on the occurrence of the violation, these samples were divided into two groups for descriptive analysis, and shown in table 4. The mean of Opinion is 9.04%, and there is a significant gap between the variables of the two samples. By inference the violation group of information disclosure of listed companies is more likely to be issued non-standard audit opinion in that year than the non-violation group. According to the difference between the mean values of InFee and InNextFee, the audit fees of the violation group are slightly higher than the non-violation group. A preliminary judgment of audit fees can be made---they are higher in the violation group of information disclosure of listed companies than in the non-violation group. There is no significant difference among the other control variables except the current ratio (Cur) violation group is observably lower than the non-violation group, which indicates that the company takes higher financial risks under information disclosure violations.

Table 3 Descriptive statistics of the sample population

	N	The minimum	The maximum	The mean	The standard deviation
Punish	5307	0.00	1.00	0.0588	0.23525
Opinion	5307	0.00	1.00	0.0239	0.15285
InFee	5307	11.92	17.20	13.6738	0.63951
InNextFee	5307	12.21	17.31	13.7711	0.63934
Size	5307	17.76	26.96	22.0036	1.11993
Arr	5307	0.00	0.70	0.1308	0.09653
Invr	5307	0.00	0.86	0.1393	0.08997
Lev	5307	0.03	1.00	0.3983	0.19390
Cur	5307	0.09	38.25	2.4986	2.53882
Roe	5307	-0.80	0.87	0.0731	0.09514
LastOpinion	5307	0.00	1.00	0.0224	0.14807
Loss	5307	0.00	1.00	0.9533	0.21108
Big4	5307	0.00	1.00	0.0456	0.20864

Table 4 Descriptive statistics of sample groups

	Punish1			Punish0			
	N	The mean	The standard deviation	N	The mean	The standard deviation	The mean difference
	Effective			Effective			
Opinion	312	0.1090	0.31211	4995	0.0186	0.13519	0.0904
InFee	312	13.7228	0.59963	4995	13.6707	0.64185	0.0521
InNextFee	312	13.8270	0.55820	4995	13.7676	0.64395	0.0594
Size	312	21.9434	1.13373	4995	22.0073	1.11907	-0.0639
Arr	312	0.1322	0.10239	4995	0.1307	0.09616	0.0015
Invr	312	0.1371	0.09321	4995	0.1394	0.08978	-0.0023
Lev	312	0.4677	0.19631	4995	0.3940	0.19294	0.0737
Cur	312	1.8321	1.39255	4995	2.5403	2.58806	-0.7082
Roe	312	0.0567	0.12371	4995	0.0741	0.09298	-0.0174
LastOpinion	312	0.0833	0.27683	4995	0.0186	0.13519	0.0647
Loss	312	0.9423	0.23354	4995	0.9540	0.20961	-0.0117
Big4	312	0.0321	0.17642	4995	0.0464	0.21047	-0.0143

4.2 Correlation analysis

The correlation coefficient is listed in table 5. According to the data analysis, there is a significant correlation between the violation of information disclosure and the audit opinions published at the 1% level, but there is no significant correlation between audit fees in current and the next year. As a result, it needs to be verified by regression analysis. In addition, the correlation coefficient between the independent variable and the control variable is mostly less than 0.1 but the maximum is only 0.633, indicating that there is no multicollinearity problem and it does not affect the following regression analysis results.

Table 5 Pearson correlation coefficient of variables

	Punish	Opinion	InFee	InNextFee	Size	Arr	Invr
Punish	1						
Opinion	0.139***[1]	1					
InFee	0.019	0.039***	1				
InNextFee	0.022	0.021	0.930***	1			
Size	-0.013	-0.031**	0.758***	0.730***	1		
Arr	0.004	-0.053***	-0.103***	-0.087***	-0.126***	1	
Invr	-0.006	0.004	0.020	0.012	0.007	-0.006	1
Lev	0.089***	0.161***	0.393***	0.378***	0.505***	0.072***	0.169***
Cur	-0.066***	-0.072***	-0.280***	-0.275***	-0.320***	-0.048***	-0.099***
Roe	-0.043***	-0.133***	0.048***	0.069***	0.077***	0.057***	-0.044***
LastOpinion	0.103***	0.526***	0.024*	0.008	-0.031**	-0.048***	0.003
Loss	-0.013	-0.158***	-0.052***	-0.032**	-0.005	0.046***	0.001
Big4	-0.016	-0.022	0.433***	0.413**	0.340***	-0.052**	-0.026*

Pre-continuation table

	Lev	Cur	Roe	LastOpinion	Loss	Big4
Punish						
Opinion						

1 *, ** and *** mean significant at the level of 10%, 5% and 1% respectively,

InFee						
InNextFee						
Size						
Arr						
Invr						
Lev	1					
Cur	-0.633***	1				
Roe	-0.150***	0.083***	1			
LastOpinion	0.145***	-0.062***	-0.054***	1		
Loss	-0.167***	0.086***	0.556***	-0.099***	1	
Big4	0.114***	-0.072***	0.091***	-0.021	0.018	1

4.3 Regression analysis

4.3.1 Regression analysis of audit opinion model

Multivariate regression is used to analyze model-opinion, and the specific results are shown in table 6 and 7. In this model, the adjusted R square is 0.305, F is 233.466, and Sig is 0.000 which is less than 0.01, indicating that this model is significant and credible.

The Beta coefficient is adopted to represent the relationship between independent variables and dependent variables. The standard B value of the non-standard audit variable is 0.076 and the Sig is 0.000, indicating that there is a significant positive correlation between the violation of information disclosure and the non-standard audit opinion issued in that year, thereby verifying H1: when it comes to information disclosure violations of listed companies, there is a higher probability for the auditor to issue non-standard audit opinion in that year.

Furthermore, the audit opinion was significantly negative related Size, the proportion of Arr, Roe and Loss at the 1% level, while it was significantly positive related to Lev and LastOpinion at the 1% level, but there was no significant correlation with other control variables. Audit opinions that year were proposed with more considerations of the company's financial operation status and audit opinions of the previous period. However, in recent years, the correlation between audit opinion and Big4 variable is barely noticeable, because the audit opinion issued is fairer and more objective.

Table 6 Significance analysis of audit opinion model

	Sum of squares	df	Mean square	F	Sig
Regression	37.927	10	3.793	233.466	0.000***2
Residual	86.034	5296	0.016		
Total	123.961	5306			

*, ** and *** mean significant at the level of 10%, 5% and 1% respectively, the same as below.

Table 7 Analysis of audit opinion model coefficients

	N	Non-standardized coefficient		Beta	T	Sig
		B	The standard error			
(Constant)	5307	0.246	0.044		5.652	0.000***
Punish	5307	0.049	0.008	0.076	6.547	0.000***
Size	5307	-0.010	0.002	-0.072	-4.921	0.000***
Arr	5307	-0.064	0.019	-0.040	-3.413	0.001***
Invr	5307	-0.029	0.020	-0.017	-1.453	0.146
Lev	5307	0.097	0.014	0.123	7.072	0.000***
Cur	5307	0.001	0.001	0.024	1.589	0.112
Roe	5307	-0.072	0.023	-0.045	-3.174	0.002***
LastOpinion	5307	0.505	0.012	0.489	41.486	0.000***
Loss	5307	-0.046	0.010	-0.064	-4.595	0.000***
Big4	5307	0.003	0.009	0.004	0.333	0.739
Adjusted R square	0.305					

2 *, ** and *** mean significant at the level of 10%, 5% and 1% respectively, the same as below.

4.3.2 Regression analysis of audit fees model

a) Regression analysis of audit fees model in that year

Model-InFee uses multiple regression analysis. The adjusted R square is 0.616, while F is 852.964, and Sig is 0.000 which is much lower than 0.01, indicating the high degree of fitting of the model.

As it was shown in table 9, the regression results of the model results from the coefficient analysis. The standard coefficient of variable information disclosure is 3.071 and the Sig is 0.002, indicating that there is a significant positive correlation between the violation of information disclosure and the audit fees charged in that year at the 1% level, thereby verifying H2-1: when there are information disclosure violations of listed companies, the audit fees charged by the accounting firm in that year are higher.

In addition, audit fees in that year have a positive correlation with Size and LastOpinion at the 1% level, and the proportion of Invr at the 5% level. The audit fees were significantly negatively correlated with Cur at 1% level and positively correlated with Lev at 5% level. It indicates that the more complicated the business status of listed companies are, the higher financial risks and the audit fees charged by accounting firms are. The audit fees are significantly negatively related to variable Loss at 1% level, since the lower business level of loss-making companies together with weaker continuous operation ability will result in a higher probability to commit irregularities and frauds to whitewash the actual situation of the company. The auditor will charge higher audit fees as they need to pay more attention to such companies. The audit fees are significantly positively correlated with the variable Big4 at the 1% level, because auditors who are in Big4 have excellent business skills and reputation costs, which caused higher fees charged by the Big4 auditors.

Table 8 Significance analysis of audit fees models of that year

	Sum of squares	df	Mean square	F	Sig
Regression	1338.773	10	133.877	852.964	0.000***
Residual	831.236	5296	0.157		
Total	2170.008	5306			

Table 9 audit fee models coefficient analysis of that year

Model	N	Non-standardized coefficient		The standard coefficient	T	Sig
		B	Standard error of	Beta		
(Constant)	5307	5.201	0.135		38.397	0.000***
Punish	5307	0.072	0.023	0.026	3.071	0.002***
Size	5307	0.393	0.006	0.688	63.087	0.000***
Arr	5307	-0.017	0.058	-0.003	-0.291	0.771
Invr	5307	0.144	0.062	0.020	2.338	0.019**
Lev	5307	-0.105	0.043	-0.032	-2.473	0.013**
Cur	5307	-0.014	0.003	-0.056	-5.067	0.000***
Roe	5307	0.083	0.070	0.012	1.186	0.236
LastOpinion	5307	0.185	0.038	0.043	4.881	0.000***
Loss	5307	-0.166	0.031	-0.055	-5.308	0.000***
Big4	5307	0.613	0.028	0.200	22.016	0.000***
Adjusted R square	0.616					

b) Regression analysis of audit fee models in the next year

Model-InNextFee adopts the regression analysis method of multiple regression. The adjusted R square is 0.569, F is 701.551, and Sig is much lower than 0.01, indicating that this model is significant and credible. As it was shown in table 11, the regression results of the model were

analyzed. The standard coefficient of variable information disclosure is 0.030, and the Sig is 0.000. The audit fees in the next year significantly positively correlated with the occurrence of the information disclosure at the 1% level, so as to verify H2-2: when there are information disclosure violations of listed companies, higher audit fees were charged by accounting firms in the next year.

Table 10 Significance analysis of audit fees models in the next year

	Sum of squares	df	Mean square	F	Sig
Regression	1235.871	10	123.587	701.551	0.000***
Residual	932.957	5296	0.176		
Total	2168.828	5306			

Table 11 Audit fees models coefficient analysis in the next year

Model	N	Non-standardized coefficient		The standard coefficient	T	Sig
		B	Standard error	Beta		
(Constant)	5307	5.630	0.144		39.232	0.000
Punish	5307	0.082	0.025	0.030	3.310	0.001
Size	5307	0.376	0.007	0.659	57.043	0.000
Arr	5307	0.041	0.062	0.006	.658	0.510
Invr	5307	0.084	0.065	0.012	1.287	0.198
Lev	5307	-0.088	0.045	-0.027	-1.952	0.051
Cur	5307	-0.015	0.003	-0.061	-5.242	0.000
Roe	5307	0.213	0.074	0.032	2.860	0.004
LastOpinion	5307	0.116	0.040	0.027	2.888	0.004
Loss	5307	-0.142	0.033	-0.047	-4.284	0.000
Big4	5307	0.574	0.030	0.187	19.472	0.000
Adjusted R square	0.569					

c) Comparative analysis

Based on the regression analysis coefficient of above models, the significant value of audit fees in the year of listed company information disclosure violations and the next year are 0.002 and 0.001 respectively, both of them reflect a positive relationship at the 1% level. The influence of the information disclosure violations of that year to audit fees was more significantly than the next year, but the difference was not considerable. Although it would be decreased sightly, it will cause a huge influence as the inherent occupational rigor owned by auditors. In conclusion, there is a significant impact on audit fees in the year of information disclosure violation of listed companies and the subsequent years, which is also positively correlated.

5. Research conclusions and countermeasures

5.1 Research conclusions

There is a significant positive correlation between information disclosure violation of listed companies and non-standard audit opinion issued by auditors. As a company with illegal behaviors, its probability of receiving non-standard audit opinions was apparently higher than others.

Secondly, there is a significant positive correlation between the information disclosure violations of listed companies and the audit fees of the current year and the next year. Furthermore,the audit fees of the violation companies are higher than other companies. Consequently, it can be concluded that information disclosure violations are more likely to increase audit fees.

5.2 Countermeasures and Suggestions

5.2.1 Optimize the internal governance mechanism of the company

First, improve the independent director system and the company's internal control system. Second, strengthen penalties for violations. Third, the independence of members in the audit committee should be guaranteed (Yun Lou, Feifei Wang, Tianxiang Yin,2017).

5.2.2 Strengthen the supervision responsibilities of intermediary agencies

First of all, raising the difficulty of the applicants of auditing and educating their professional ethics continuously. Second, establish and improve the internal supervision system of intermediary institutions and open up channels for people to communicate with the supervision authorities.

5.2.3 Strengthen the construction of industry ethics

Carry out the moral education of securities market practitioners vigorously and hold the professional ethics education theme meetings for staff regularly.

This paper concludes that there is a significant positive correlation between information disclosure violations of listed companies and non-standard audit opinions and audit fees. The non-standard audit opinions issued by accounting firms and the continuous high audit fees might damage the confidence of investors of the listed company and force them to bear the financial burden, which is not conducive to the development of the company and the stability of the industry. Therefore, the improvement of the information revelation system of listed companies and the enforcement of the boundaries of information disclosure are in priority.

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References

[1] Duan Yuangang, Chen Bo. Loss of asset impairment, audit fees and audit opinions [J]. *Audit research*,2017(02): 40-47. (in Chinese)

[2] Li Tao, Wang Jianjun. Research on related party transaction fraud audit based on the theory of "two triangles of fraud" -- with Letv as an example [J]. *Journal of finance and accounting*, 2018(17):92-100. (in Chinese)

[3] Li Yun, Wang Feifei, Yin Tianxiang. CEO power, audit committee expertise and audit expenses [J]. *Audit research*, 2017(06): 91-98. (in Chinese)

[4] Xu Jianbin. Theoretical basis of accounting information disclosure of listed companies [J]. *Chinese certified public accountant*,2016(09):56-61. (in Chinese)

[5] Yuan George Shan, Indrit Troshani, (2016) "The effect of mandatory XBRL and IFRS adoption on audit fees: Evidence from the Shanghai Stock Exchange", *International Journal of Managerial Finance*, Vol. 12 Issue: 2, pp.109-135