ISSN 2616-5902 Vol. 3, Issue 10: 78-81, DOI: 10.25236/AJBM.2021.031014

An Empirical Study on the Influencing Factors of SSE A-Share Firms Audit Fees----Based on 2017-2019 data

Xi Ying[1], Dan Xu[2]

[1]*University of Shanghai for Science and Technology, Shanghai, 201210, China*
[2]*Shenzhen University, Shenzhen, 518060, China*

Abstract: *In this paper, 718 listed companies in the A-shares of SSE are studied, using the relevant data from 2017-2019, identifying explanatory variables and constructing multiple linear regression models from the influence of both internal and external factors on corporate audit fees. The empirical results indicate that whether the external auditor is Big Four, the size of the board of directors, the size of the supervisory board, and the financial leverage all show a positive correlation with corporate audit fees. Therefore, this paper recommends that enterprises strengthen risk management and improve their governance structure to effectively reduce audit costs while ensuring audit quality.*

Keywords: *SSE A shares, Audit fees, Influencing factors, Regression model*

1. Introduction

Audit costs are an important part of corporate overhead, including the fees paid to external auditors and the funds spent on internal audits. How to effectively reduce audit costs while ensuring the quality of auditing is always a hot issue of concern to the management of enterprises. Therefore, studying the current situation of enterprise audit fees and their influencing factors can, to a certain extent, help enterprises improve the efficiency of capital use and reduce audit costs while ensuring the quality of enterprise audit, which is conducive to the sustainable development of enterprises.

2. Literature review

Regarding the research on the influencing factors of corporate audit fees, Li Lianjun and Xue Yunkui (2007) argue that enterprises will pay different degrees of premiums according to accounting firms with different reputations, and listed enterprises usually need to pay higher audit fees to the international Big Four to obtain higher quality audit reports; Li Cuihong, Ju Xinran, and Fan Xiaoyi (2021) used a sample of Shanghai and Shenzhen A-share listed companies from 2015-2019 and found that corporate risk-taking was significantly and positively related to audit fees; You Jiaxiang (2013) found a weak negative relationship between board size and audit fees, using data from 1775 Shanghai and Shenzhen A-share listed companies in 2011. However, Gao Lixia (2021) takes the financial data of 2662 enterprises in Shanghai and Shenzhen A-shares from 2016-2017 as a sample and finds that the governance structure of listed companies affects the audit fees of enterprises, which shows the audit fees are positively related to the size of the board of directors, the proportion of independent directors and the number of internal committees established, while negatively related to the proportion of management's shareholding. Therefore, it can be seen that the research results of different scholars have some differences depending on the research objects and the level of economic development.

In addition, most scholars have conducted special studies on the factors influencing corporate audit fees from a specific perspective without considering the impact of corporate external audit factors and internal governance factors on corporate audit fees in an integrated manner. Therefore, this paper draws on previous research methods and experiences, selecting the relevant data of 718 listed companies in SSE A shares from 2017-2019 for empirical analysis to improve corporate funds' efficiency and reduce audit costs while safeguarding audit quality.

ISSN 2616-5902 Vol. 3, Issue 10: 78-81, DOI: 10.25236/AJBM.2021.031014

3. Research design and data selection

(1) Research design

Drawing on the research results of previous research and considering the measurability and availability of variable factors involved in the factors affecting enterprise audit fees, this paper mainly divides the factors into three parts: external audit factors, internal governance factors and control factors, which can be subdivided into 7 secondary indicators such as whether the external auditor is Big Four, the Size of the board of directors, the Size of the supervisory board, the Financial Leverage, Return on Assets, Gearing Ratio and Company Size. The impact indicators involved are shown in Table 1 below.

Table 1: Influencing factors and indicators of audit fees

Primary index	Secondary index	Variable Definition
External audit factors	Whether the external auditor is Big Four (BF)	The auditor being Big Four is taken as 1, otherwise is taken as 0
Internal governance factors	Size of the board of directors (BS)	Total number of Board of Directors
	Size of the supervisory board (SS)	Total number of Supervisory Boards
	Financial Leverage (FL)	Corporate financial leverage coefficient
Control Variables	Return on Assets (ROA)	Net income/total assets*100%
	Gearing Ratio (LEV)	Ratio of total book value of debt to total book value of assets at the end of the year
	Company Size (Size)	Total assets of the company greater than the average value is taken as 1, otherwise is taken as 0

The Big Four accounting firms are trusted by companies for their excellent reputation and professional services. Compared with other firms, the Big Four require more audit professionals, more relevant experience and less chance of making mistakes. Moreover, the Big Four can provide more training for auditors, which can enhance the level of auditors and improve the quality of audit work. Therefore, in order to compensate for the audit investment, they need to charge higher audit fees to enterprises.

The board of directors is responsible for making decisions on the overall affairs of the company. The larger board of directors may strengthen management supervision, which can improve audit quality and increase audit fees. Nevertheless, it may make the board of directors redundant, resulting in ineffective corporate decision-making and even the increase of financial and operational risks, thus raising enterprises' audit fees.

The supervisory board is responsible for inspecting and supervising the business activities of the enterprise. The larger the supervisory board is, the more effective it can be in monitoring the management behavior, which is conducive to improving the enterprise's requirements for internal audit quality, thereby increasing the audit costs.

Enterprises will face multiple pressures such as capital and operation in the course of business. When the financial risk is greater, the more likely the enterprise will be in trouble, the more negative media coverage it may face, making the audit work more complex. The auditor will be more cautious in carrying out the audit work, hence increasing the audit costs.

The control variables were selected with reference to previous literature, using return on assets, gearing ratio and firm size to respectively reflect firm profitability, solvency and size, in order to control for the interference of these factors on the regression results.

Based on the above analysis, the following three models are constructed to test the effects of each explanatory variable on corporate audit fees, taking into account the characteristics of the research subjects in this paper.

$$AF = C + \beta_1 BF + \varepsilon \tag{1}$$

$$AF = C + \beta_1 BF + \beta_2 Bs + \beta_3 Ss + \beta_4 Fl + \varepsilon \tag{2}$$

$$AF = C + \beta_1 BF + \beta_2 Bs + \beta_3 Ss + \beta_4 Fl + \beta_5 ROA + \beta_6 LEV + \beta_7 Size + \varepsilon \tag{3}$$

Where C is a constant term, β is a variable coefficient, and ε is a random perturbation term.

ISSN 2616-5902 Vol. 3, Issue 10: 78-81, DOI: 10.25236/AJBM.2021.031014

(2) Data selection

In this study, the financial data released by 718 listed companies in SSE A-shares from 2017-2019 are selected as the research samples. In the sample screening, the listed companies in the financial, ST and PT categories were excluded, and the samples with abnormal or significant missing data were deleted. Finally, 2154 observation samples were obtained. All data in this paper are collected from the CSMAR database.

4. Empirical analysis

(1) Descriptive Statistics

Using SPSS.25 and EVIEWS.11 to analyze the sample data, the descriptive statistical analysis results are shown in the table below. It can be seen that the mean value of the logarithm of audit fees of SSE A-share companies is 13.999, with the highest audit fees 18.143 and the lowest only 12.044. Its standard deviation is 0.795, indicating significant differences in SSE A-share companies' audit fees.

Table 2: Descriptive Statistics

VAR	Mean	Median	Maximum	Minimum	Std. Dev.
Y	13.999	13.816	18.143	12.044	0.795
BF	0.112	0.000	1.000	0.000	0.315
BS	8.673	9.000	17.000	4.000	1.716
SS	3.653	3.000	12.000	1.000	1.162
FL	1.275	1.080	11.199	0.417	0.726
ROA	0.449	0.439	0.947	0.014	0.195
LEV	0.057	0.047	0.372	0.001	0.044
SIZE	0.452	0.000	1.000	0.000	0.498

(2) Correlation Analysis

The sample data in this study are balanced panel data. We first implemented the Pearson correlation test to avoid the cointegration problem. The results are shown in the table.

Table 3: Pearson correlation test

	Y	BF	BS	SS	FL	ROA	LEV	SIZE
Y	1							
BF	0.499**	1						
BS	0.158**	0.053*	1					
SS	0.183**	0.040	0.416**	1				
FL	0.069**	-0.005	0.080**	0.135**	1			
ROA	0.460**	0.152**	0.139**	0.196**	0.351**	1		
LEV	0.198**	0.041	0.080**	0.124**	0.343**	0.464**	1	
SIZE	0.598**	0.302**	0.263**	0.326**	0.161**	0.530**	-0.228**	1

Note: ** indicates significant correlation at the 0.01 level (two-tailed), * at 0.05 level.

Then the Hausman test shows that the probability values of models (1)-(3) are all less than 0.01, which means models (1)-(3) all reject the random effect, so fixed effect models are used for regression analysis. The regression results are shown below.

Table 4: Regression results

VAR	Model (1)		Model (2)		Model (3)	
	Coefficient	T-statistics	Coefficient	T-statistics	Coefficient	T-statistics
C	14.026	1665.489	14.032	5105.528	6.383	234.414
BF	0.231	3.854	0.245	17.093	0.212	20.707
BS			0.004	5.550	0.004	3.711
SS			0.007	12.255	0.012	5.823
FL			0.014	2.968	0.015	4.911
ROA					-0.109	-4.825
LEV					0.327	22.588
SIZE					0.325	326.663
F-statistics	80.710		739.549		140.949	
Prob	0.000		0.000		0.000	

ISSN 2616-5902 Vol. 3, Issue 10: 78-81, DOI: 10.25236/AJBM.2021.031014

(3) Analysis of regression results

The regression results from Model (1) show that the type of external auditor is Big Four has a significant effect on the audit fees of enterprises at the 1% confidence level. It can be seen that the coefficient between these two is 0.231, which means the logarithm of audit fees is 0.231% higher for companies whose external auditor is a Big Four than others. The reason may be that Big Four have a higher level of auditors, can implement more effective quality control, use more advanced audit techniques, and invest more resources than other accounting firms. In addition, the scale and brand effect of the Big Four are more competitive, with there being a gap between local accounting firms and them. Therefore, they have a certain pricing advantage in audit fees and can charge higher fees to companies.

From the regression results of Model 2, the size of the board of directors and supervisory board, and financial leverage are positively related to corporate audit fees at the 1% confidence level. When the size of the board of directors increases by 1%, the firm's audit fee will increase by 0.004%; while a 1% increase in the size of supervisory board will increase the firm's audit fee by 0.007%. The larger the size of the board of directors and the supervisory board, the stronger the supervision ability of the enterprise, the higher the demand for audit quality, thus increasing the audit costs. When the financial leverage coefficient of a company increases by 1%, the audit fees of the company will increase by 0.014%. The higher the financial risk, the higher the possibility of financial fraud, which requires auditors to improve the audit level, expand the audit scope and consume more resources and efforts to guarantee the authenticity of financial information, therefore raising the audit fees of enterprises.

Adding control variables, it can be found that return on assets, gearing ratio and firm size have a significant positive relationship with enterprises audit fees, with coefficients of -0.109, 0.327 and 0.325 respectively. This indicates that the lower the firm's return on assets, the lower its profitability level, the higher its financial risk, thereby increasing the audit fees. The lower the gearing ratio of a company, the stronger its solvency, the lower the audit risk and therefore decreasing the audit fee. The larger the company, the more complex the company's business, the audit scope will be larger and the audit cycle will be longer, the higher the audit fees of enterprises.

5. Conclusion and suggestion

This paper conducts an empirical study on 718 SSE A-share firms from 2017-2019, which leads to the following conclusions: corporate audit fees are positively related to the external auditor being Big Four, the board size, supervisory board size and corporate financial leverage. Among the control variables, firm size and gearing ratio are positively related to corporate audit fees, while return on assets is negatively related to corporate audit fees.

The research in this paper has some practical significance. Enterprises should take strong measures to control risks, strengthen risk management, and reduce financial and operational risks, thus reducing corporate audit costs. Additionally, corporates can improve their internal structure, enhance governance efficiency, and seek high-quality audit services to effectively reduce audit costs, conducive to promoting sustainable corporate development.

References

[1] Li Lianjun, Xue Yunkui. An empirical study of auditor reputation premium and audit quality in the Chinese securities market [J]. China Accounting Review, 2007(03):401-414.
[2] Li Cuihong, Ju Xinran, Fan Xiaoyi. The impact of corporate risk-taking on audit fees based on the mediating effect of surplus management [J]. Shanghai Business, 2021(09): 102-103.
[3] You Jiaxiang. An empirical analysis of the impact of listed companies' governance structure on audit fees [J]. Eastern Enterprise Culture, 2013(17): 79-80.
[4] Gao Lixia. Research on the relationship between governance structure and audit fees of listed companies [J]. China CPA, 2021(06): 58-65.
[5] Liu Xiaoxia, Li Minghui, Lv Wei. Accounting firm size and audit pricing: An empirical study of local firms in China [J]. Financial Theory and Practice, 2012, 33(05): 69-75.