

# The Influence of Enterprise Management Risk on Audit Fees

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**How to cite this paper:** Huang, L. (2019) The Influence of Enterprise Management Risk on Audit Fees. *Open Journal of Social Sciences*, 7, 157-166.  
<https://doi.org/10.4236/jss.2019.72013>

**Received:** January 2, 2019

**Accepted:** February 16, 2019

**Published:** February 19, 2019

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## Abstract

Audit cost has a great impact on the independence of audit work and the quality of audit report, which has aroused many scholars' research and discussion. Risk-oriented auditing requires certified public accountants to put enterprises in the current economic environment, analyze and evaluate the importance level of auditing from various aspects such as the industry situation, business activities and internal control of enterprises, so as to determine the part with higher risk level of auditing and conduct key auditing. This article selects A part from 2013 to 2015 a-share listed companies' financial reporting data, establishing audit fees and measuring business risk index of the regression model, multiple regression analysis. At the same time, the influence of audit fees related index has carried on the empirical research. The research results indicate that: the asset-liability ratio and audit fees of listed companies are positively correlated; accounts receivable turnover and net interest rate on sales are negatively correlated with audit charges. And according to the results of research and analysis, I put forward relevant opinions and suggestions.

## Keywords

Audit Fees, Business Risks, Asset-Liability Ratio

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## 1. Introduction

Listed companies enhance the credibility of their financial information and enhance the trust of investors to obtain more investment through independent auditing by accounting firms. Due to the lack of authenticity and reliability of enterprise financial information, accounting firms and audit failure cases have emerged one after another in recent years, making social groups begin to pay attention to the quality of audit. Among the many factors influencing audit quality, audit fee is one of the contents that scholars pay most attention to, and there

are many related research results. Therefore, it is of great significance to reduce audit fees and form a reasonable charging mechanism by studying the influencing factors of audit fees. This not only helps accounting firms to make reasonable pricing, but also has important significance to maintain the independence of certified public accountants and improve the quality of audit reports to a certain extent.

Since the business risks of listed companies are closely related to audit risks, auditors need to increase the amount of audit work to ensure the reliability of financial statements for audit risks and some operational risks. However, for the other part of business risks, auditors cannot reduce or eliminate them by implementing audit procedures, and can only charge higher audit fees to clients with high business risks through risk premium as compensation. Therefore, the analysis of the relationship between business risks and audit fees has an important impact on obtaining reasonable audit fees. This paper selects different indicators to measure the business risk of enterprises, analyzes the relationship between them and audit fees by multiple regression, and puts forward policy opinions and suggestions according to the analysis conclusions, which is also the significance of this paper's research.

## **2. Research Status and Literature Review**

### **2.1. Overseas Research Status**

Western countries have conducted in-depth studies on the impact of business risks on audit fees. Taylor and Baker (1981), famous scholars, have concluded that 79% of audit fees can be explained by the size and business complexity of listed companies, which is significant at the significance level of 0.01 [1].

Simunic (1980) selected the financial report data of listed companies in the United States in 1977 as the research object, established the model of factors related to audit fees, conducted data statistical processing, and obtained the research results through multiple regression analysis, showing that the size of a company has the greatest impact on audit fees. At the same time, it is considered that return on equity and audit term are not significant influencing factors of audit expense, and the goodness of fit of its equation reaches 46%. It is also concluded that the scale of accounting firm has no insignificant influence on audit fee [2].

Griffin, scholars such as (2010) of listed companies in the United States as the research object, the results show that relatively slow development of the enterprises have more severe bookkeeping agency problems, and enterprises have higher cash flow, it will give the public accounting firm of certified public accountants spend much more time and energy to the audit of the company, will inevitably increase enterprise audit fee [3].

### **2.2. Domestic Research Status**

The influence of enterprise operation risk on audit charge is not mature in Chi-

na. Wang Bing *et al.* (2010) selected the research objects of financial report data of some listed companies from 2001 to 2008 and established a model for multiple regression analysis. The research shows that: the number of subsidiaries, industry, asset-liability ratio and other audit fees are positively correlated; among them, the negative correlation with audit fees is the ratio of inventory to total assets [4].

Lu Ying *et al.* (2010), based on the research object of financial data of listed companies in 2008, established the influencing factor model of audit cost and conducted a multiple regression analysis. The research shows that: there are positive correlation factors with audit fee; the number of subsidiaries, types of audit opinions and the size of the audited units; The factors negatively related to audit fee are: Liquidity ratio, receivables turnover ratio, inventory to total assets ratio [5].

Peng Long (2011) *et al.* selected the financial data of listed companies in China from 2001 to 2009 as the research object for data statistical processing and empirical analysis. The results show that there is no significant correlation between non-audit services and audit fees [6].

Wu Linen (2011) took the financial data of some listed companies in China's real estate industry as the research object, and the research showed that there was a certain correlation between audit material misstatement risk and audit fee [7].

Wang Zongjun (2012) *et al.* took the financial report data of some listed companies in China from 2003 to 2009 as the research object, conducted statistical processing of the data and regression analysis. Research shows that; The scale of the internal board of directors of an enterprise is negatively correlated with the risk taken by the enterprise due to poor operation [8].

Li Yue (2012) *et al.* selected the stock prices of some companies in China's stock exchanges as the research object, established a model of factors related to the impact of audit fees, and conducted data structure analysis. Studies have shown that the independence of the board of directors of an enterprise is positively correlated with audit fees [9].

Song Jinhua (2012) *et al.* selected financial data of listed companies in China as the research object, and concluded that the situation of controlling shareholders of listed companies in China was negatively correlated with audit fees [10].

Cheng Xiaoping (2012) collected survey data for analysis, and the internal control and audit fees of the enterprise showed an inverted U shape. Through the analysis of the method of control variables, the more perfect the internal control of an enterprise is, the higher the implementation of internal control is, the higher the audit efficiency is, the less audit procedures are implemented, and the audit fees will be reduced. However, after the internal control of the enterprise is higher than a certain range, with the improvement of the internal control of the enterprise, audit fees will not decrease but increase [11].

Gao Lei (2010) *et al.* took the financial data of China's banking industry as the

research object, conducted data statistics and empirical analysis on the relationship between the property rights of China's Banks, non-performing loan ratio and audit fees. According to the research, the non-performing loan ratio of China's banking industry is positively correlated with audit fees [12].

### **3. Relevant Theoretical Analysis**

#### **3.1. Theoretical Elaboration of Business Risk**

Many scholars have studied and discussed the definition of risk concept from different aspects. The famous new Palgrave dictionary of economics believes that "there is no risk phenomenon in economic activities all the time". Anthropologists represented by Mary Douglas believe that the definition of risk is the recognition of unknown dangers, which is a function of social structure from the very beginning and is mainly used to identify risks. The environment we live in and the economic environment will bring different risks, and different decisions or choices made by individuals will bring various business risks. Because of this, enterprises, as the product of social and economic development, will produce different operating risks when operated by collective or individual. According to the above definition, we can define business risk, that is, in the production and operation activities of an enterprise, due to the decisions made by managers or operators and some uncontrollable factors, the earnings of the enterprise deviate from the expectations, thus affecting the profits or losses of the enterprise.

#### **3.2. Composition of Audit Charges**

As an independent third party, accounting firms provide authentication and other services for listed companies. Therefore, during the initial business activities, specific standards of auditing fees for accounting firms and auditees will be agreed upon. Generally, the audit fee of certified public accountants includes three parts. The first part is the product cost, and certified public accountants, the product cost of the auditees audit is to issue the audit report and perform the necessary audit procedures, the product cost is mainly divided into material cost and manpower cost, including the human cost is relatively complex, including the staff travel fees, the auditor to pay experts, field and staff overtime pay, the worker pay the audit fees has a great influence. Generally speaking, the larger the enterprise scale is, the more complex the business degree is, or the enterprise with chaotic internal control will spend more efforts of certified public accountants, will face higher audit fees; Risk and cost of the second part is that certified public accountants issued certified public accountants face the compensation lawsuit resulted from the inappropriate comments or reputation risk, because this part of the risk is only the audit risk, certified public accountants cannot by performing audit procedures to put this part of the risk to zero, so the CPA firm will cost by increasing the audit approach to raise the risk premium, so as to reduce the loss of the public accounting firm; The third part is the brand value and normal profit of accounting firm. Usually, the influential well-known brand ac-

counting firm audit fee is higher, for example, the “big four” accounting firm, enjoying high reputation both at home and abroad, its brand value the auditees to find international “big four” accounting firm, to improve the reliable of financial reporting information users trust degree, must pay higher audit fees.

### **3.3. The Relationship between Operating Risk and Audit Fee**

With the rapid development of market economy and more and more enterprises going bankrupt, social audit is constantly developing to meet the needs of the society. Different focuses on the verification of the authenticity of the Numbers in the financial statements and whether fraud, under the modern risk-oriented audit requirements of certified public accountants to enterprises in the current economic environment, combining with the industry environment, the nature of enterprise, management integrity and the implementation of internal control and operation to multiple levels analysis result evaluation of the credibility of the financial statements of the enterprise. The risk-oriented model requires accounting firms not only to understand the industry environment of enterprises and the effect of internal control operation, but also to pay attention to the business risks and financial status of enterprises, so as to determine the scope of key audit and increase the audit intensity. For areas with high risks, certified public accountants will invest more human and material resources and implement more audit procedures to reduce the possibility of issuing inappropriate opinions, thus increasing the relevant audit costs. If the implementation effect of internal control of an enterprise is not good or even non-existent, then the business risk of the enterprise may be more severe. In order to reduce the risk of litigation and other risks faced by the accounting firm in the audit process, the audit fee will be increased to make up for future losses. Therefore, the enterprise's operating risk and audit charges are positively correlated.

## **4. Empirical Research Design**

### **4.1. Sample Selection and Variables Select**

This paper selected the a-share listed companies in Shanghai and Shenzhen from 2013 to 2015 as the research samples, and made an empirical analysis on the impact of business risks on audit fees. In order to keep the data true and effective, listed companies that meet one of the following conditions are excluded: 1) listed companies that do not disclose audit fees in their annual reports; 2) listed companies belonging to the financial insurance industry are excluded because their financial conditions are quite different from those of non-financial industries and are not comparable; 3) listed companies with incomplete or seriously missing relevant financial data;

Based on Simunic (1980) regression analysis model and the analysis model of other scholars, this paper takes the natural logarithm of the audit cost of enterprises as the dependent variable, which is represented by LnFee. Three indicators of the enterprise are selected to measure the business risk of the enterprise, in-

cluding the accounts receivable turnover rate as the explanatory variable and the asset-liability ratio and the net interest rate of sales as the control variables. The variable design in this paper is shown in **Table 1** variable definition **Table 1**.

## 4.2. Hypothesis

The enterprise management risk control mainly starts from the internal environment, has selected the asset-liability ratio, accounts receivable turnover rate, sales net interest rate three indicators. The asset-liability ratio is the percentage of total liabilities divided by total assets. Asset-liability ratio is reflected in how much proportion in the total assets to raise cash by borrowing, the higher the value, shows that loan, the greater the proportion of its own funds is lower, but at the same time can't repay liabilities, the higher the risk, the greater the potential risk of accounting firm, accounting firm will therefore will be to control audit risk by increasing the audit fee. Based on the above relations, this paper proposes the following hypotheses:

H1: the asset-liability ratio of listed companies is positively correlated with audit fees.

The turnover rate of accounts receivable is the value of the average balance of accounts receivable divided by the operating income, which is an important index to evaluate the liquidity of accounts receivable. The higher the ratio, the faster the receivables turn over; On the contrary, the slower the turnover speed of accounts receivable, so if the enterprise's accounts receivable can be recovered in time, the efficiency of the use of funds of listed companies can be greatly improved, will make the audit procedures for accounts receivable implemented by certified public accountants become more efficient, will save the relevant manpower and material resources, thus reducing the audit costs. Therefore, this paper proposes the following hypotheses:

H2: the receivables turnover rate of listed companies is negatively correlated with audit charges.

Shareholders and management of listed companies are in different identities, and shareholders will test the extent of management to complete the commission through financial reports, which is related to the interests of management. Therefore, accounting firms will take sales revenue, net profit and other subjects as the key objects of audit. The net interest rate on sales reflects the profitability of the enterprise and will naturally attract the attention of investors. The higher this index is, the better the profitability of the enterprise is, and the lower the

**Table 1.** Variable definition.

	Variable definition
LnFee	Log audit expenses
ARTR	Sales revenue/average accounts receivable
DAR	Total liabilities/total assets
NPM	Net profit/sales revenue

possibility for the management to engage in fraudulent behaviors and whitewash the profits. The lower the risk of audit, the lower the corresponding audit service fee will be. This paper proposes the following assumptions:

H3: the net sales interest rate of listed companies is negatively correlated with audit charges.

## 5. Empirical Analysis

### 5.1. Multiple Regression Model

$$\text{LnFee} = \alpha_0 + \alpha_1 \text{ARTR} + \alpha_2 \text{NPM} + \varepsilon$$

### 5.2. Descriptive Statistics

This paper will be divided into three years of sample audit fees of the 300,000 yuan the following 30 90 to 1.5 million yuan to 900,000 yuan from 150 to 2.1 million yuan, 2.1 million yuan to 2.7 million yuan, 2.7 million yuan of above six groups, each group includes caps does not include the lower limit, as shown in **Table 2** according to **Table 2**.

### 5.3. Multiple Regression Analysis

According to the regression analysis results in **Table 3**, the following conclusions are drawn in this paper:

1) The probability of the regression coefficient t statistic of the debt to asset ratio of listed companies is close to 0.00, and it is positively correlated when significance level is 0.01, which verifies the hypothesis of this paper. That CPA firms

**Table 2.** Descriptive statistics.

Audit fee (unit: ten thousand yuan)	2013	2014	2015
<30	5	1	1
30-90	136	129	119
90-150	35	40	42
150-210	10	12	20
210-270	1	4	7
>270	13	14	11

**Table 3.** Multiple regression result.

	LNFEF	
	Coef	T
ARTR	0.019***	14.104
DAR	-0.001***	-5.691
NPM	-0.002***	-3.494
_CONS	12.593**	199.71

t statistics in parentheses; \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001.

to audit pricing mechanism more concerned about the enterprise in the relationship between the ratio of liabilities to assets, to judge the operation situation of the enterprise capital chain for enterprise debt paying ability is strong, the probability of enterprise crisis will decrease, the probability of certified public accountants in a litigation crisis, it will reduce the risk premium of lower case audit fee can also be reduced.

2) The probability corresponding to the regression coefficient t statistic of the receivables turnover rate of listed companies is close to 0.00 and negatively correlated with the significance level value of 0.01, which is consistent with the hypothesis in this paper. Indicates that the accounts receivable of listed companies as a certified public accountants audit the focus of the object, the enterprise accounts receivable of listed companies to liquidate speed reflects the stand or fall of enterprise internal control implementation, good corporate internal control on the efficiency of certified public accountants audit of the implementation process have a positive impact, under the condition of saving manpower and material resources, audit fees will reduce naturally.

3) The probability corresponding to the regression coefficient t statistic of the net sales interest rate of listed companies is 0.001, and it is negatively correlated when the significance level value is 0.01, which is consistent with the conjecture in this paper. The good operation status of an enterprise will affect the financial status and the effect of internal control .Poor operating conditions of enterprises through increased sales revenue or hide part of the cost of sales to achieve the inflated profits, the purpose of whitewash financial statements, therefore certified public accountant in the audit process for sales revenue and cost of sales and net income authenticity test tended to be confirmed by different audit procedures, but also increase consumption of resources, also will be positively correlated to increase audit fees.

## **6. Research Conclusions and Recommendations**

Based on the above conclusions, this paper puts forward relevant opinions on reasonable audit charges from the perspectives of external and internal environmental factors.

### **6.1. External Environmental Factors**

1) Improve audit fees. At present, in the issued policies and regulations, accounting firms can take the total assets, liabilities or sales revenue of enterprises as the calculation basis for the establishment of audit fees, but have not formed a complete system. At present, there is a widespread phenomenon of earnings management in China's listed companies. If sales revenue or net profit is taken as the basis for calculating audit fees, it is likely that accounting firms will increase audit fees regardless of whether the profits of enterprises are real or not. Therefore, it is necessary to improve the indicator mechanism of charging and realize a reasonable charging system of accounting firms according to the alloca-



tion of market economy.

2) Strengthen the legal system of regulating audit fees. At present, there are no perfect laws and regulations to regulate audit, so it is of great significance to regulate audit fees from the legal level. Through some legal means, such as revoking business licenses or imposing fines on accounting firms that illegally charge fees, accounting firms are restricted by law in the whole auditing process, thus forming a reasonable charging mode.

3) Improve the professional ethics of auditors in accounting firms. In the process of auditing, auditors play a strong subjective initiative. If the level of professional ethics of auditors is low, behaviors such as seeking personal benefits for the public and abusing power will affect the normal auditing fee standard. Therefore, auditors should abide by professional ethics and maintain independence in the audit process, which has a positive impact on the formation of a reasonable audit fee system.

## 6.2. Internal Environmental Factors

1) Listed companies should strengthen market competitiveness and achieve sustainable development. Enterprises have their own core competitiveness and are in an advantageous position in the overall environment of the industry. In the long run, enterprises are in the trend of rising development and can achieve sustainable development. Enterprises can focus on the asset-liability ratio, receivables turnover rate and net interest rate on sales. Such enterprises' financial data (such as debt paying ability and profitability) will be in a good state, and their operating risks will be at a low level. Similarly, the risk of management fraud is low. Then the corresponding audit risk is also at a low level, and the audit cost will not be high.

2) The management shall strengthen the formulation and implementation of the internal control of the enterprise. The internal control system and operation of enterprises are directly related to the authenticity and reliability of financial data. For the part that CPA will focus on, such as monetary capital, accounts receivable, sales revenue and other subjects, the internal control will be more strictly implemented to ensure the integrity and authenticity of data. Once the internal control is well run, it will greatly improve the efficiency of auditors, save related costs and reduce the cost. Therefore, under the risk-oriented audit, the internal control of enterprises plays an increasingly important role.

## Acknowledgements

At the time of the completion of the paper, I would like to express my special thanks to my tutor for his careful guidance. During the period of writing the paper, I had many questions and doubts, and the teacher would diligently answer them for me. Whether in the direction and title of the paper at the beginning or in the structure and framework of the paper later, the tutor gave guidance and suggestions for modification from the overall layout to the format of the paper.

Her profound academic quality has helped me a lot in my thesis. Her meticulous work style can find out the minor mistakes in my thesis and take pains to help me improve the content of my thesis.

### Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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