

Corporate Litigation Risk, Earnings Management and Audit Fees

Li Zhang

School of Economics and Management, Nanjing University of Science and Technology, Nanjing, China

Abstract. As China's economy and society continue to develop and the legal system progressively advances, litigation has become a way for more and more companies to resolve disputes. However, while litigation protects the rights and interests, it also brings different aspects of impact to the company itself, the audit firm and the stakeholders. This paper limits the sample to non-financial listed companies in Shanghai and Shenzhen A-shares from 2012-2019, and constructs an earnings management mediating effect model to study the impact of corporate litigation risk on audit fees and its mechanism of action. It is found that (1) company's litigation risk has a significant positive effect on audit fees; (2) company's litigation risk has a significant positive effect on the degree of earnings management; (3) the impact of corporate litigation risk on audit fees will be partly realized by increasing the company's earnings management activities in the course of its operations, in other words, the higher the company's litigation risk, the higher the company's earnings management, which will further lead to an increase in audit fees.

Keywords: Litigation Risk, Earnings Management, Audit Fees, Mediation Effect.

1. Introduction

In an increasingly developing economy, the auditor, as an external supervisor of an enterprise's operating conditions, plays an important role in protecting the rights and interests of stakeholders and maintaining the socialist market economic order. The audit firm, however, charges a certain fee when providing audit services to enterprises, and this fee is a measure of the value of the services provided by the auditor. Since the implementation of the risk-based audit model in China, auditors have paid more attention to the various risks that exist in the day-to-day operation of the company. And if the auditor believes that there are currently greater risks in the company, it is likely that the audit fees will be raised to compensate for the various risks that exist. The impact of litigation and arbitration events that have already occurred in public companies is one of the key manifestations of corporate risk.

In recent years, with the continuous development of China's economy and society and the gradual promotion of the national legal system construction, the gradually improving legal environment has brought both opportunities and challenges to the listed companies. On the one hand, the company can defend its legal rights and interests through legal means. And if the company is not involved in litigation cases or not punished in the course of its operation, it means that its operation management is standardized and its business condition is good. On the other hand, with the improvement of the legal environment, people's awareness of rights protection through legal means is stronger, then the company may be involved in more litigation cases. Moreover, if the company is involved in too many litigation cases, it conveys negative information to the outside world to a certain extent, such as irregular operation and dishonesty. There is also the possibility of high costs associated with being involved in too many litigation cases, leading to operational difficulties, shortage of funds and other problems. Third-party stakeholders, such as investors, may also lose confidence in the company and affect its ongoing operations. In 2019, a total of 1,096 listed companies were involved in litigation cases, with a total number of nearly 10,000 cases, of which the total amount involved was 368.7 billion yuan. It is evident that in today's market economy, litigation is more commonly used to settle commercial disputes between companies or between companies and individuals, becoming more and more common. At the same time, however, this has had a negative impact on the company to varying

degrees. This has led to a strong incentive for earnings management to cover up the negative consequences of the litigation case, in order to alleviate the operational difficulties at this stage.

In the current market economy, earnings quality issues are widespread and of great concern among listed companies. From the Enron incident in 2001 to the Ruixing Coffees incident in 2020, it has verified the adverse effects of earnings management on the long-term development of companies. It also reduces the reliability and authenticity of publicly disclosed financial reporting information. Yet there are still many listed companies that choose to resort to earnings management to manipulate their earnings. When a company faces negative reputational as well as operational impacts from litigation risks, managers are likely to adopt certain earnings management techniques to convey untrue operating information and improve the company's image. However, the company's earnings management practices can make the auditor's job more difficult at some level, and can also amplify the risks that the auditor may have during and after the audit. This can lead to an increase in the audit fees price that the audit firm demands from the client company. Therefore, in this article, whether the impact of corporate litigation risk on audit fees is transmitted through earnings management activities is the main inquiry of this article.

This paper investigates the impact of litigation risk on audit fees of listed companies and its mechanism of action, using earnings management as a mediating variable. The significance of the study is mainly in two aspects.

In terms of theoretical significance, this paper enriches the research on the economic consequences related to litigation risk in listed companies. Although studies in the literature have been conducted to show that litigation risk of listed companies causes auditors to charge more for audits. However, based on this, this paper further explores the mediating effect of the degree of earnings management in the process of litigation risk affecting audit fees. This broadens the idea of research on the economic consequences associated with corporate litigation risk. Moreover, this paper adds to the research literature on the relationship between corporate litigation risk and earnings management. To date, a small literature has examined the impact of corporate litigation risk on the degree of accrual earnings management. However, no studies in the literature have focused on the relationship between corporate litigation risk and the real earnings management activities that occur in the course of a company's operations. Therefore, the research in this paper fills this gap and deepens the literature on whether corporate litigation risk has certain consequences on the internal manipulative behavior of companies.

In terms of relevance, this paper uses an empirical test to verify the effect of a company's litigation risk on the degree of earnings management and audit fees. This provides evidence on whether listed companies need to take measures to control the economic consequences of the company's litigation risk. The paper also investigates the mediating effect of the degree of earnings management in the process of the company's litigation risk on the audit fees. This provides implications for how listed companies in China can take appropriate measures to reduce costs such as audit fees.

2. Literature Review

2.1. Litigation Risk and Audit Fees

In relevant foreign studies, most scholars measure litigation risk through the local legal environment and thus study its impact on audit fees. Venkataraman et al. (2008) and Abbott et al. (2017) demonstrate that the auditor's litigation risk increases when the client firm faces a more stringent legal environment. As a result, auditors increase their audit fees [1, 2]. Bronson et al. (2017) found that cross-listed companies in the US are subject to stricter laws and related standards, which create higher litigation risk and require more audit work to reduce audit risk. As a result, the firm charged more for the audit [3]. In addition, there are also many studies that confirm that when a company has a higher overall litigation risk, the auditor will therefore demand more compensation from the company [4, 5]. Taken together, if auditors face higher risks, they usually choose to issue more conservative audit opinions to external third parties. And they may also ask the company to pay a higher fees price or simply dissolve the relationship with the public company client [6].

The relationship between litigation risk and audit fees has been gradually enriched by scholars in China. Yuanmu Hu and Tian Guo (2014) used litigation, arbitration and major disciplinary events to measure the legal risk of companies and found that for companies with higher risk, auditors need to increase audit fees to compensate for the increased costs and the litigation risk associated with issuing biased audit opinions [7]. Junrui Zhang, Hui Liu, and Bei Yang (2015) find that the auditor's opinion on a listed company and the price of the fees requested can be shaped by micro-level risk factors of the company, including litigation risk. For litigation risk, the auditor is more likely to demand a high audit fee if the company has a higher level of presence [8]. Chao Huang and Jun Huang (2016), on the other hand, start from an emerging perspective, the short selling mechanism, and find through their study that the fall in a company's share price can be influenced to some extent by the short selling mechanism. And it will prompt investors to go for more negative information about the company, which increases the auditor's litigation risk. Then the more likely the firm will demand higher audit compensation from the company [9]. Zongyu Xu and Yuanyuan Yang (2020) similarly demonstrate a positive relationship between firm litigation risk and audit fees using litigation-related data. However, female executives were also found to attenuate the relationship [10]. In addition to the impact of corporate litigation risk on audit fees alone, Tao Jiang and Ding Shang (2020) also concluded from their study that when a listed company is exposed to higher litigation risk, the company's risk in all aspects also increases and future business conditions may deteriorate or even lead to bankruptcy. Therefore, the auditor will charge the company a higher price in terms of the fees charged, considering the cost as well as the risk when making relevant decisions. In terms of the audit opinion issued, the auditor will issue a non-standard audit opinion on the company's financial report in order to make himself less likely to lose money in the future due to audit failure. On the contrary, if the auditor issues a standard audit opinion, it will make a certain increase in the fees charged to compensate for the possible risk of audit failure [11]. Currently, a small number of scholars have also studied the mechanism of the interaction between the two. Yingfei Liu and Xiaohu Zhang (2019) looking at the key audit matters implemented in recent years, found that the increased risk of corporate litigation causes the auditor to disclose more key audit matters in the audit report issued, which increases the workload. This causes the level of audit fees charged by the firm to the company to rise [12]. Yafang Ji, Fugui Luan, and Yi Ding (2020) found that corporate litigation increases audit fees by increasing a company's business risk [13].

2.2. Earnings Management and Audit Fees

In foreign studies, some scholars have argued that the higher the degree of earnings management of a company, the lower its audit fees will be. However, other scholars have found that a high degree of earnings management in a company's operations or reporting process can prompt the firm to ask the company to pay a higher fees price. Gul et al. (2003) argue that earnings management is complex, diverse and hidden, and the accounting accounts it involves are uncertain, making the inherent risk to the auditor higher [14]. Hong et al. (2014) studied the effect of the degree of true earnings management on audit fees using an interview method and found that the degree of true earnings management has a significant positive effect on audit fees [15].

Domestic scholars' studies on the relationship between the two also have different views. Xueni Liu and Ke Xu (2011) argue that in today's audit market, supply exceeds demand. Most firms have to adopt the strategy of low-price competition to grab client resources. Therefore, even when they encounter clients with a high degree of earnings management, auditors do not increase their audit fees in order to retain their clients [16]. Yuee Long and Jun Zhang (2013) also found that auditors are not always able to fully identify the earnings management activities of listed companies [17]. Instead, most scholars believe that a high level of earnings management in a company's operations or reporting process will prompt the firm to ask the company to pay a higher price for the audit fees. For example, Yinghui Song and Junsheng Chen (2017) considered the gradual prevalence of true earnings management behavior of firms. Therefore, they investigate the correlation between the degree of true earnings management adopted by firms in the course of their operations and the audit fees paid. And

found that the true earnings management of the company has a significant positive effect on the audit fees charged by the firm [18]. Jianbing Shao and Yonghen Chen (2018) further divided earnings management into upward direction as well as downward direction, and found a significant positive correlation between downward direction of earnings management and audit fees. This indicates that the diminishing direction of earnings management will expose the auditor to greater risk and thus will devote more audit resources, leading to higher audit fees [19]. After considering the effects of other variables, Xiaoliang Wang, Di Wang, and Yong Jiang (2019) found that the educational heterogeneity of the executive team can strengthen the governance level of the firm, thus attenuating the positive effect of true earnings management on audit fees [20]. Zhen Wei (2019), on the other hand, considered the effect of executive compensation and found that executive compensation can attenuate the positive correlation between the level of earnings management and audit fees [21].

2.3. Litigation Risk and Earnings Management

Only a small number of scholars have studied the relationship between firm litigation risk and earnings management, and no consistent conclusions have been reached. Xuehua Zhang and Xiaolin Chen (2015) analyzed the relationship from the perspective of firm exclusivity and found that when firms become special general partnerships, they are stricter with clients who have high risk, which results in a lower level of earnings management for high-risk clients [22]. Aimin Qian and Zhi Yu (2017) found that the higher the litigation risk of a firm, the more its earnings management behavior will be, especially negative earnings management [23]. Yiping Shao and Wengui Li (2018) also studied the impact of other factors on the relationship and found that when a company has high litigation risk, earnings quality is significantly lower. However, if a company chooses a high-quality auditor, then litigation risk does not make the company's earnings quality lower. Thus, the quality of the company's accounting disclosure is improved [24].

2.4. Summary of Literature

Combining the above three research status, in the research on the relationship between corporate litigation risk and audit fees, scholars have come to the consistent conclusion that there is a positive correlation between corporate litigation risk and audit fees through research and analysis from different levels and perspectives, respectively. In the studies related to earnings management and audit fees, there are different views. Most scholars have found a positive correlation between the two through their studies. However, some scholars believe that in today's competitive market environment, the level of earnings management does not lead to an increase in audit fees. There are fewer studies on corporate litigation risk and earnings management, and similarly inconsistent findings exist. Taken together, few scholars have examined the mechanisms by which corporate litigation risk affects this process of audit fees and the role that earnings management may play in it.

3. Theoretical Analysis and Research Hypothesis

3.1. Concept Definition

3.1.1. Corporate litigation risk

There are two different definitions of litigation risk for companies. The first is litigation risk in a broad sense, which refers to the possibility that a company will experience a lawsuit, arbitration event or administrative penalty in the future due to some uncertainty. The possibility of litigation that has not yet occurred is considered [25]. The second one is narrowly defined and generally refers to the various unforeseen impacts that the litigation process and the outcome of the judgment may have on the company's future business development after a major litigation or arbitration event. Given the availability of data, the second type is chosen in this paper to determine the level of litigation risk of the company. Significant litigation and arbitration cases disclosed in the financial reports issued by listed companies each year are used to measure.

3.1.2. Earnings management

Earnings management is the act of adjusting the earnings of the annual financial reports published by the company through the company managers' own subjective operations in order to make benefits for themselves, without violating the corresponding accounting standards. This may make the information released to the public lack a certain degree of reliability. There are two different types of earnings management techniques that a company can adopt. The first one is accrual earnings management, which is the act of manipulating the surplus by using accounting estimates and accounting policy choices for the company's own benefit [26]. The second type is true earnings management. This approach does not focus on the flexible application of the currently applicable institutional standards. Instead, it maximizes the manager's own interests by adjusting various real activities in the company's production, operations, and sales, such as related-party transactions, promotions, and reductions in period expenses. From the definition of both, it can be seen that it will be more difficult for auditors and regulators to detect the real earnings management behavior of a company. But at the same time, it is also more harmful to the business development of the company. With the gradual increase of current regulation, managers tend to choose the less risky real earnings management practices to change the surplus level in the external disclosure information and further expand the managers' own interests. Therefore, the calculation of surplus management in this paper uses the degree of true earnings management that occurs in the course of a company's operations.

3.1.3. Audit fees

Every year, a public company needs to hire an auditor to audit its financial reports. After the audit is completed, the company needs to pay a certain amount of labor for the audit services provided by the auditor, known as the audit fees. The amount of the audit fees will, to a certain extent, affect the auditor's independence and its audit quality. Generally speaking, audit fees are determined by three components. The first part is the audit cost, which refers to the resources and time invested by the auditor in auditing the listed company, such as the number of personnel and audit man-hours. This is an expense that must be incurred in the process of auditing a company, and is a direct factor affecting the audit fees. The second part is the risk premium. The risk premium becomes more important in the risk-based audit model. This is used by the firm to cover future losses due to possible lawsuits or reputational damage as a result of issuing an audit report that is not in line with reality. The third component is profit. This is the firm's cost-plus component for the audit services provided. The price for this component is more flexible and is determined by the firm on its own merits.

3.2. Theoretical Basis

3.2.1. Audit risk theory

Audit risk is the probability that a client company audited by a CPA has material errors in its financial reports issued to the public and the CPA still issues an audit opinion on it that does not correspond to the actual situation [27]. In our current audit context, $\text{audit risk} = \text{inherent risk} \times \text{control risk} \times \text{inspection risk}$ [27]. The inherent risk that is inherent in the company and the control risk that can be influenced by the company's control mechanisms together make up the company's risk of material misstatement. This is the probability of a material misstatement that the company already has prior to being audited by the CPA and is not related to the CPA's audit work. Inspection risk is the probability that, for audit clients with problems, the CPA does not detect material misstatements or omissions contained in the annual financial report even after performing various audit procedures such as assessments and letters.

The governance mechanism of a public company affects the risk of material misstatement in the annual financial report. If the company has effective governance and good internal control, the risk of material misstatement will be lower. Then the auditor will not have to invest too much resources and time in performing audit procedures, and the total audit risk will be lower, so both low cost and low risk premium will result in lower audit fees. However, if the company's governance mechanisms are inadequate and there are relatively serious internal control deficiencies, then this may lead to a

higher risk of material misstatement. This makes it necessary for the CPA to increase the use of human and material resources as well as financial resources in the audit process to reduce the inspection risk. As a result, both the cost of the audit and the increase in risk premium will cause the firm to charge more for the audit.

3.2.2. Audit insurance theory

In the current market economy environment, the separation of ownership and operation is the most common phenomenon in listed companies, that is, the owner of the company transfers the operation right to the agent to manage and operate the company. However, there is often a certain degree of information asymmetry between the two, then the agent will take advantage of their information to take improper actions to benefit themselves. This, in turn, harms the interests of the owners of the company. Therefore, in order to restrain the improper behavior of agents, companies need to establish appropriate internal control and governance mechanisms, and hire independent third-party auditors to review the company's operating conditions. The independent third-party auditor acts as an external monitor of the company and is responsible for monitoring the quality of the company's external financial reporting information. However, in the eyes of the company's owners and other stakeholders, the external auditor provides them with a form of "insurance" against future losses. Owners and other stakeholders are willing to pay a fee to hire an independent third-party auditor in order to reduce the risk of fraud and the resulting losses, thus providing assurance about the company's operating conditions and the reliability of its financial information. This fee is equivalent to the cost of "insurance" in the real sense.

The auditor assumes the risk for the information released by the company after the owner, as the policyholder, has paid for the so-called "insurance". If an investor or other interested party causes significant financial loss by using incorrect financial reporting information, they will seek compensation from the company and also hold the firm liable. This is the insurance liability assumed by the firm, which shares with the operator the risk of compensation for losses caused by the owner's investment errors. Simply put, it is a risk-sharing mechanism for the firm.

3.2.3. Information asymmetry theory

Information asymmetry theory means that in today's market economy, some people will have fuller and more timely information and have the initiative of information. Others, on the other hand, do not have timely access to information, and the information they obtain may be flawed and passive in terms of information access. Those who have more comprehensive information tend to use the information advantage for their own personal benefit, to the detriment of the information-poor. Information asymmetry is very common in the day-to-day business activities of companies, where the executives have the power of management and have the most up-to-date and comprehensive information. The principal, on the other hand, is not involved in the day-to-day management of the company and only owns the ownership of the company. Therefore, the only source of information about the company is the annual financial report. Moreover, the principal is not familiar with the expertise of financial statements, so it is difficult to identify fraud or surplus management of managers. Compared with the company manager, the principal is in a disadvantageous position in terms of information and is easily deceived by the manager who has sufficient information, and his or her rights and interests may be violated.

3.3. Research Hypothesis

3.3.1. Corporate litigation risk and audit fees

First, from the perspective of the accounting firm, the existing literature shows that audit fees depend on three components: audit cost, audit risk and profit. In terms of audit costs, if a listed company is exposed to litigation risk, its business conditions will be affected and both operational and financial risks will be elevated. In response, the auditor will adopt more stringent audit procedures and invest more human, material and financial resources in order to reduce the risk of inspection during the audit and the risk of possible reputation damage or being sued after the audit, etc. This

leads to higher audit costs, which directly results in higher audit fees. In terms of risk premiums, the “deep pocket” theory suggests that the more financially powerful targets are more likely to be sued, regardless of the actual situation, so the theory is also known as the “insurance theory”. In our actual business activities, when it is not possible to clearly distinguish liability, the firm tends to assume most of the liability. Therefore, according to the audit risk theory, insurance theory and “deep pocket” theory presented in the theory section, when a company is exposed to litigation risk, the accounting firm is also required to assume a portion of the liability for the company. In other words, the firm is required to assume the risk from the client company, thus increasing the firm’s potential exposure to litigation, which may result in reputational and financial losses. In response, the firm will seek to compensate for the risk and potential future financial loss by requiring the public company to pay a higher fee.

Second, from the perspective of the listed company itself, when the company faces high litigation risk, in order to cover up the reputation loss as well as the economic loss caused by the litigation risk, the managers may adopt certain fraudulent practices or earnings management techniques to convey false good information to the outside world. But at the same time, it is necessary for the firm to issue a consistent opinion to cover up the untrue information. Therefore, the company will be willing to pay higher audit fees for the audit opinion, which in turn will undermine the auditor’s independence and cause the auditor to issue an incorrect audit opinion.

In summary, when a company has litigation risk, the firm will invest more human, material and financial resources in order to reduce the risk of inspection during the audit and the risk of possible reputation damage or being sued after the audit. This in turn leads to an increase in audit costs. And CPAs also charge a corresponding risk premium. These two aspects together cause an increase in audit costs. Moreover, companies may also pay more fees to firms in order to cover up untrue financial information to achieve the purpose of purchasing audit opinions. Therefore, this paper proposes the following hypothesis:

H1a: Companies with significant litigation cases are associated with higher audit fees.

H1b: The more litigation a company has, the higher its audit fees will be.

H1c: The larger the company’s litigation, the higher the audit fees.

3.3.2. Corporate litigation risk and earnings management

Litigation, while effective in dealing with conflicts of interest, entails higher costs. First of all, it costs a certain amount to carry out litigation. Secondly, if the company loses the lawsuit, it will have a certain impact on its reputation, may lose some partners and have a certain impact on the company’s business activities. Moreover, it may be liable for certain damages, causing the company to have problems such as liquidity. In general, the company’s litigation events may cause certain damage to the company’s reputation, financial position, and ability to operate.

And the level of earnings is an important aspect that reflects the company’s operating conditions. Therefore, managers may take advantage of the information asymmetry between themselves and their principals to manipulate the surplus for their own performance and other related interests by adopting more covert and real earnings management techniques. In other words, managers let the earnings level be higher than the true situation to convey the manipulated good earnings level to the outside world, thus maintaining the company’s image in the outside world to further attract investment and alleviate business difficulties. On the other hand, the company may also adopt downward earnings management, underestimating the earnings, in order to reduce the company’s operational and financial risks arising from litigation. This is because it may be possible to obtain relief from a court decision or understanding from the plaintiff in a lawsuit, thereby giving way to a settlement.

Therefore, when a company has a litigation risk, managers will increase earnings in order to maintain a good image of the company to the outside world. But they may also adjust earnings downward to reduce the risk of the company’s existence. However, whether the earnings is increased or decreased, this increases the degree of earnings management of the company to some extent. Therefore, the following hypothesis is proposed in this paper:

H2a: Companies with significant litigation cases are associated with higher levels of earnings management.

H2b: The more litigation a company has, the higher the degree of earnings management.

H2c: The larger the amount of litigation a company has, the higher the degree of earnings management.

3.3.3. Corporate litigation risk, earnings management and audit fees

Litigation events can have a series of negative impacts on companies, such as damage to reputation, insufficient capital turnover, and facing operational difficulties. Therefore, based on the theory of information asymmetry, the possibility of company managers adopting earnings management activities to manipulate the earnings rises. Moreover, there are many means of earnings management, and some of them are highly concealed, which increases the risk inherent in the audit risk model to some extent.

Therefore, based on audit risk theory, if the auditor wants to reduce the audit risk to an acceptable level, it will increase the audit procedures, invest more audit resources and put more effort to audit the financial status of the client company, and the increase in the degree of earnings management will also increase the operational and financial risks of the company, so it will require higher audit fees to compensate for the increased costs and the rising risks.

On the other hand, based on the audit insurance theory, if the audit fails, the auditor may be subject to a lawsuit by the client firm's stakeholders and the reputation may be damaged. The firm plays the role of an insurer when it may be required to pay a certain amount of compensation. Therefore, when the client company's risk increases, the accounting firm will charge the company a certain amount of "insurance" fees.

In summary, litigation risk can cause companies to adopt more earnings management practices in their operations or reporting process in order to conceal the true situation or reduce operational and financial risks, resulting in increased use of resources such as human and material resources as well as financial resources by auditors. Therefore, the company is required to pay higher cost fees. Also to compensate for the risk of possible future audit failure, a certain risk premium fees is required by the CPA. Therefore, the following hypothesis is proposed in this paper:

H3: Earnings management exerts a mediating effect in the process by which corporate litigation risk affects audit fees.

4. Research Design

4.1. Sample Selection and Data Source

The analysis in this paper is limited to non-financial companies listed in Shanghai and Shenzhen A-shares from 2012-2019. The sample with missing values was then eliminated, and finally contains 19969 annual company observations. In the process of data collection, this paper obtains data related to litigation risk from the Wind database and relevant financial as well as audit data from the CSMAR database. In this paper, we also Winsorize the continuous variables by 1% at the head and tail to eliminate the effect of extreme values.

4.2. Variable Definition

4.2.1. Explained variable

The effect of litigation risk of listed companies on audit fees and its mechanism of action is the main research of this paper. Therefore, the explanatory variable is the price of audit fees paid by listed companies to firms. After referring to the existing literature, this paper uses the logarithm of audit fees paid by firms to measure this variable.

4.2.2. Explanatory variable

Corporate litigation risk as an explanatory variable is generally measured in the current literature using the litigation and arbitration cases that have occurred as disclosed in the annual reports of listed companies or the legal environment of the company's location. Kangsheng Zhao, Ping Zhou, and Yubo Liu (2017) use whether the company is involved in significant litigation, the number of lawsuits involved, and the amount of lawsuits involved to measure the company's litigation risk in their article [28]. Chy et al. (2020) use the local legal environment to measure the auditor's litigation risk [29]. Yanchao Wang, Guohua Jiang, and Qingquan Xin (2016) go a step further and measure both the enforcement cost of litigation (i.e., the amount of compensation for the subject matter of litigation) and the prevalence of litigation (using Fan Gang's 2011 Legal Development Index) [30]. In this paper, we refer to the metric of Kangsheng Zhao, Ping Zhou, and Yubo Liu (2017), which uses whether a company is involved in litigation, the number of lawsuits involved, and the amount of litigation as a measure of a company's litigation risk (*Liti*).

Considering that the audit fees charged by the firm to the company are determined at the beginning of the period, which means that the audit fees mainly refer to the litigation events that have occurred in the previous year, the three measures of litigation risk (*Liti*) in this paper use the data of the listed company in the previous year, which can also avoid the influence of endogeneity on the results.

4.2.3. Mediator

As a mediator, the degree of earnings management, the absolute value of the true degree of earnings management of listed companies in the business process is used as a measure to participate in the regression analysis in this paper. And the Roychowdhury model is used for calculation [31], as shown in equations (1) - (4):

$$\frac{CFO_{it}}{A_{it-1}} = \alpha_0 + \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{REV_{it}}{A_{it-1}} + \alpha_3 \frac{\Delta REV_{it}}{A_{it-1}} + \varepsilon_{it} \quad (1)$$

$$\frac{PROD_{it}}{A_{it-1}} = \alpha_0 + \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{REV_{it}}{A_{it-1}} + \alpha_3 \frac{\Delta REV_{it}}{A_{it-1}} + \alpha_4 \frac{\Delta REV_{it-1}}{A_{it-1}} + \varepsilon_{it} \quad (2)$$

$$\frac{DISEXP_{it}}{A_{it-1}} = \alpha_0 + \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{REV_{it-1}}{A_{it-1}} + \varepsilon_{it} \quad (3)$$

$$TREM_{it} = (-1)A_CFO_{it} + A_PROD_{it} + (-1)A_DISEXP_{it} \quad (4)$$

In the above equation, *CFO* represents net cash flow from operating activities, *PROD* reflects the current period's production costs, which is the sum of operating costs and inventory changes, *DISEXP* represents manipulative expenses, which is the sum of selling and administrative expenses, *REV* is the company's operating income, and *A_{it-1}* is used to eliminate the scale effect and is expressed in terms of total assets at the end of the previous period. *A_CFO* (sales manipulation), *A_PROD* (production manipulation) and *A_DIAEXP* (expense manipulation) represent the residual values of the above three equations, and *TREM* is the company's true earnings management, which is calculated by equation (4). *REM* is the absolute value of *TREM*, and the larger the value, the higher the degree of true earnings management exists in the company's operation.

4.2.4. Control variable

The existing literature has studied the factors affecting audit fees in two main aspects: the characteristics of the client firm and the characteristics of the firm and auditor. Regarding the characteristics of the client firm, Huifang Huang (2012) found that the larger the asset size of the audit client, the higher the audit fees the firm has to pay [32]. Jiang Wang (2017) argues that the higher the complexity of the business, the more difficult it will be for the auditor to audit and therefore the audit fees will increase [33]. The governance factors of the firm as well as the financial situation are likewise client characteristics that affect audit fees [10, 34]. In terms of firm and auditor

characteristics, domestic scholars have explored and found that firm size has a significant positive effect on audit fees [35]. At the individual auditor level, it has also been found that auditors with industry expertise charge higher audit fees compared to auditors without industry expertise [36]. Based on the relevant studies by scholars in the existing literature on the factors influencing audit fees, this paper incorporates other factors that may affect audit fees as control variables in the model at two main levels: firm characteristics and firm characteristics, as shown in Table 1 below:

Table 1. Variable definition

Variable Type	Variable Symbol	Variable Name	Variable Definition
Explained variable	<i>Lnfee</i>	Audit fees	Ln (the firm's annual audit fees)
Explanatory variable	<i>Liti_dum</i>	Whether it is involved in litigation	If the company was involved in litigation in the previous year, then take 1, otherwise take the value of 0
	<i>Liti_count</i>	Number of litigation	Number of litigations of the company in the previous year
	<i>Liti_amount</i>	Amount of litigation	Ln (total amount of the company's litigation in the previous year + 1)
Mediator	<i>REM</i>	Earnings management	Absolute value of the company's annual true earnings management
Control variable	<i>Size</i>	Company size	Ln (total asset)
	<i>SOE</i>	Nature of ownership	Take 1 if the listed company is a state-owned enterprise, otherwise take the value of 0
	<i>LEV</i>	Debt asset ratio	Total liabilities at end of period / Total assets at end of period
	<i>ROA</i>	Return on total assets	Net income for the year / Total assets at the end of the period
	<i>Growth</i>	Company growth	Operating income growth rate
	<i>Loss</i>	Loss or not	If the net profit of the listed company for the year is negative then take 1, otherwise take 0
	<i>IR</i>	Business complexity	Ratio of the sum of inventory plus accounts receivable to total assets at the end of the period
	<i>Dual</i>	Two positions in one	Take 1 if the chairman is also the general manager, otherwise 0
	<i>OP</i>	Audit opinion	Take 1 if a non-standard audit opinion was received in the previous year, 0 otherwise
	<i>Big4</i>	International top 4	1 if the firm auditing the annual report is a Big 4, 0 otherwise
	<i>Year</i>	Annual fixed effects	1 when the sample is for a specific year, 0 otherwise
	<i>Industry</i>	Industry fixed effects	1 when the sample is a specific industry, 0 otherwise

4.3. Model Design

In order to test the hypotheses proposed earlier, this paper constructs the following three models with reference to the mediation effect test proposed by Zhonglin Wen and Baojuan Ye [32]. The testing process is divided into three main steps: in the first step, the coefficient α_1 in model (5) is tested, which is to verify whether there is a significant correlation between corporate litigation risk and audit fees; in the second step, the coefficient β_1 in model (6) is tested, which is to verify the correlation between corporate litigation risk and the degree of earnings management; in the third step, the coefficients γ_1 and γ_2 in model (7) are tested, and then the test results of these three steps are combined to analyze the mediating effects proposed in hypothesis H3, the structure of which is shown in Figure 1.

$$Lnfee_{it} = \alpha_0 + \alpha_1 Liti_{it} + \alpha_2 Control_{it} + \alpha_3 \sum Year_t + \alpha_4 \sum Industry_i + \varepsilon_{it} \quad (5)$$

$$REM_{it} = \beta_0 + \beta_1 Liti_{it} + \beta_2 Control_{it} + \beta_3 \sum Year_t + \beta_4 \sum Industry_i + \varepsilon_{it} \quad (6)$$

$$Lnfee_{it} = \gamma_0 + \gamma_1 Liti_{it} + \gamma_2 REM_{it} + \gamma_3 Control_{it} + \gamma_4 \sum Year_t + \gamma_5 \sum Industry_i + \varepsilon_{it} \quad (7)$$

The coefficient α_1 in model (5) is the total effect of firm litigation risk on the effect of audit fees; the coefficient β_1 in model (6) is the effect of firm litigation risk on earnings management in the course of the firm's business; the coefficient γ_1 in model (7) is the direct effect of litigation risk on the price of audit fees that the auditor requires the firm to pay after suppressing the effect of earnings management, and the coefficient γ_2 is the effect of firm litigation risk on the price of audit fees after suppressing the The coefficient γ_2 is the effect of the mediating variable degree of earnings management on the audit fees after suppressing the effect of corporate litigation risk. where $\beta_1 \times \gamma_2$ is the indirect effect after the degree of earnings management, which is the intermediary effect.

Provided that the regression results of model (5) are significant, $\beta_1 \times \gamma_2$ indicates the mediating effect of the degree of earnings management. If both β_1 and γ_2 are significant in the results of the regression, it can indicate that the mediating effect of earnings management is present in the process. Further differentiating them, if γ_1 in model (7) is not significant, it indicates that the mediating effect is complete in this process; if this coefficient is not significant, it indicates that the mediating effect of the degree of earnings management is only partially produced and the amount of effect exerted by the mediating variable is calculated by dividing the total effect by the mediating effect, which is $\beta_1 \times \gamma_2 / \alpha_1$.

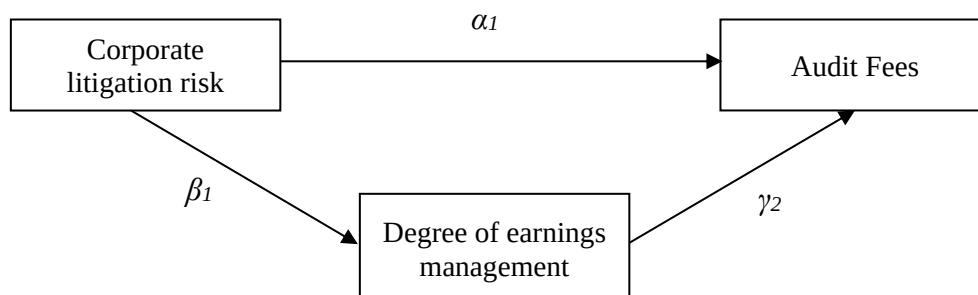


Figure 1. Intermediation effect test model

5. Empirical Tests and Analysis of Results

5.1. Descriptive Statistical Analysis

Table 2 shows the descriptive statistics for all variables. For audit fees ($Lnfees$), the standard deviation of the sample observations in this paper is 0.69, and the maximum and minimum values are 16.31 and 12.61, respectively. this indicates that the audit fees charged by firms are more volatile across companies, and firms charge different audit fees depending on various aspects of the audited company. The indicator variable whether or not involved in litigation ($Liti_dum$), one of the explanatory variables to measure the litigation risk of the firm, has a mean value of 0.16. This indicates that 16% of the listed companies in the sample of companies from 2012-2019 had a litigation case in the previous year. Another explanatory variable litigation count ($Liti_count$) has a maximum value of 11 and a mean value of 0.46. This indicates that within the sample period, listed companies had an average of 0.46 litigation cases per year and were involved in a maximum of 11 litigation cases in a year. The last explanatory variable litigation amount ($Liti_amount$) has a standard deviation of 5.82 and a maximum value of 19.57. This indicates that there is a wide range of litigation amounts among listed companies and the maximum amount involved is more than 300 million. Among other variables, the mean value of audit opinion (OP) is 0.04, indicating that only 4% of the annual

observations of the companies in the sample were issued a non-standard audit opinion, and most of the companies still received a standard audit opinion. The balance sheet ratio (*LEV*) has a minimum value of 0.06 and a maximum value of 0.96. There is also a large variation in company growth, indicating that there is a gap between the solvency and growth of the companies.

Table 2. Descriptive statistics of variables

Variable	N	Mean	SD	min	P50	max
<i>Lnfee</i>	19969	13.83	0.69	12.61	13.71	16.31
<i>Liti_dum</i>	19969	0.16	0.37	0.00	0.00	1.00
<i>Liti_count</i>	19969	0.46	1.56	0.00	0.00	11.00
<i>Liti_amount</i>	19969	2.32	5.82	0.00	0.00	19.57
<i>REM</i>	19969	0.15	0.19	0.00	0.10	7.12
<i>Size</i>	19969	22.25	1.29	19.58	22.09	26.15
<i>SOE</i>	19969	0.38	0.49	0.00	0.00	1.00
<i>LEV</i>	19969	0.45	0.21	0.06	0.44	0.96
<i>ROA</i>	19969	0.03	0.07	-0.31	0.03	0.21
<i>Growth</i>	19969	0.18	0.53	-0.63	0.09	3.71
<i>Loss</i>	19969	0.12	0.32	0.00	0.00	1.00
<i>IR</i>	19969	0.27	0.17	0.01	0.25	0.75
<i>Dual</i>	19969	0.26	0.44	0.00	0.00	1.00
<i>OP</i>	19969	0.04	0.20	0.00	0.00	1.00
<i>Big4</i>	19969	0.06	0.23	0.00	0.00	1.00

5.2. Analysis of Regression Results

5.2.1. Impact of litigation risk on audit fees

To test hypotheses H1a, H1b and H1c, we constructed model (5). And accordingly, regression analysis was conducted on the sample for testing the relationship between corporate litigation risk and audit fees. The regression results are shown in the table below.

Columns (1) to (3) are regression analyses of the three proxy variables for the firm's litigation risk on the audit fees price the firm is required to pay, respectively. The results in the table below show that the regression coefficients for whether a listed company is involved in litigation (*Liti_dum*), the number of lawsuits (*Liti_count*), and the amount of litigation (*Liti_amount*) are all significantly positive after controlling for the influencing factors of company size, nature of ownership, and balance sheet ratio. This indicates that when a firm is involved in a litigation case in the previous year, its audit fees for the current year will be higher, and the higher the number of litigation and the amount of litigation in the previous year, the higher the firm's audit fees will be. In other words, when the firm audits companies with higher litigation risk, it significantly raises the audit fees. From the firm's perspective, when a company is at risk of litigation, it may resort to earnings management activities in order to preserve its reputation or to cover up the financial losses from the litigation and to facilitate continuing to attract investment, thus sending a good message to the outside world. At the same time, it cannot be checked by the auditor, so the firm will want to buy the auditor by paying additional and higher audit fees to undermine their independence so that the auditor will issue an opinion in favor of the client company. At the firm level, auditors will invest more resources in auditing client companies with high litigation risk in order to reduce audit risk and charge a risk premium. This results in the auditor asking the company to pay a higher audit fees price.

Table 3. Regression results of litigation risk and audit fees

	(1)	(2)	(3)
	<i>Lnfee</i>	<i>Lnfee</i>	<i>Lnfee</i>
<i>Liti_dum</i>	0.072***		
	(8.75)		
<i>Liti_count</i>		0.015***	
		(7.64)	
<i>Liti_amount</i>			0.004***
			(7.99)
<i>Size</i>	0.373***	0.372***	0.373***
	(109.24)	(109.07)	(109.17)
<i>SOE</i>	-0.051***	-0.051***	-0.051***
	(-7.55)	(-7.52)	(-7.60)
<i>LEV</i>	0.068***	0.072***	0.068***
	(3.53)	(3.78)	(3.56)
<i>ROA</i>	-0.488***	-0.482***	-0.486***
	(-7.92)	(-7.82)	(-7.88)
<i>Growth</i>	0.006	0.007	0.006
	(0.88)	(1.00)	(0.90)
<i>Loss</i>	0.041***	0.042***	0.042***
	(3.36)	(3.44)	(3.41)
<i>IR</i>	0.014	0.011	0.013
	(0.68)	(0.55)	(0.64)
<i>Dual</i>	0.005	0.005	0.005
	(0.77)	(0.70)	(0.76)
<i>OP</i>	0.197***	0.195***	0.198***
	(11.82)	(11.57)	(11.81)
<i>Big4</i>	0.638***	0.638***	0.638***
	(37.47)	(37.40)	(37.43)
<i>Industry</i>	YES	YES	YES
<i>Year</i>	YES	YES	YES
<i>_cons</i>	5.391***	5.411***	5.401***
	(74.74)	(75.06)	(74.93)
<i>N</i>	19969	19969	19969
<i>R²</i>	0.656	0.656	0.656
<i>F</i>	949.096	947.288	948.089

Note: t-values in parentheses, ***, **, * indicate significant at the 1%, 5%, and 10% levels.

The results of the control variables show that the size of listed companies, balance sheet ratio, whether they are loss-making, prior year audit opinion and whether they are audited by Big 4 have a significant positive effect on audit fees. In contrast, the nature of ownership and the return on total assets have a significant negative effect. Consistent with the existing literature, it indicates that the larger the listed company is, the more auditors will need to audit and the more complex it will be. Then the auditor needs to pay more time, resources, etc. in the process of auditing, which increases the cost of auditing and leads to the increase of audit fees. When a company has a high gearing ratio, the solvency of the company becomes weaker. And if there is a loss, then the company's business risk increases. The auditor charges a risk premium to cover possible future losses, which makes the audit fees more. In addition, if the company was issued a non-standard audit opinion in the previous year, the auditor will take the previous year's audit opinion into consideration and communicate with the corresponding auditor to determine whether its impact is significant, thus increasing the audit procedures and leading to higher audit fees. And when the company is audited by a Big 4 firm, the audit quality will be higher because it has more audit resources, more complete audit procedures and better talents, so it will charge a higher audit fee accordingly. When an enterprise is state-owned, it

has a natural political background, so it is less likely to be involved in lawsuits and less likely to be punished than non-state-owned enterprises. And the public image will be better, so there will be less incentive for earnings management. Therefore, audit fees will be lower. Moreover, the higher the return on total assets, the better the operating conditions and the lower the audit fees.

5.2.2. Impact of litigation risk on earnings management

Table 4 shows the study of the relationship between litigation risk and earnings management of companies. According to model (6), the mediating variable (*REM*) is used as the explanatory variable. The explanatory variables are also three proxy variables for litigation risk, which are whether the company was involved in litigation in the previous year (*Liti_dum*), the number of litigations (*Liti_count*) and the amount of litigation (*Liti_amount*).

Table 4. Regression results of litigation risk and earnings management

	(1)	(2)	(3)
	<i>REM</i>	<i>REM</i>	<i>REM</i>
<i>Liti_dum</i>	0.008**		
	(2.19)		
<i>Liti_count</i>		0.002**	
		(2.20)	
<i>Liti_amount</i>			0.001***
			(2.73)
<i>Size</i>	-0.004**	-0.005**	-0.004**
	(-2.41)	(-2.46)	(-2.41)
<i>SOE</i>	-0.010***	-0.010***	-0.010***
	(-3.38)	(-3.37)	(-3.41)
<i>LEV</i>	0.034***	0.035***	0.034***
	(3.18)	(3.25)	(3.12)
<i>ROA</i>	0.608***	0.609***	0.609***
	(14.62)	(14.64)	(14.63)
<i>Growth</i>	0.083***	0.083***	0.083***
	(8.85)	(8.86)	(8.85)
<i>Loss</i>	0.083***	0.083***	0.083***
	(14.04)	(14.07)	(14.06)
<i>IR</i>	0.010	0.009	0.010
	(0.79)	(0.77)	(0.80)
<i>Dual</i>	0.008**	0.008**	0.008**
	(2.36)	(2.34)	(2.35)
<i>OP</i>	0.042***	0.041***	0.041***
	(3.95)	(3.83)	(3.90)
<i>Big4</i>	-0.003	-0.003	-0.003
	(-0.47)	(-0.47)	(-0.47)
<i>Industry</i>	YES	YES	YES
<i>Year</i>	YES	YES	YES
<i>_cons</i>	0.178***	0.180***	0.178***
	(4.63)	(4.69)	(4.63)
<i>N</i>	19969	19969	19969
<i>R</i> ²	0.125	0.125	0.125
<i>F</i>	39.076	39.156	39.077

Note: t-values in parentheses, ***, **, * indicate significant at the 1%, 5%, and 10% levels.

According to the analysis of the results in the table 4, it is clear that whether the listed companies are involved in lawsuits (*Liti_dum*) and the number of lawsuits (*Liti_count*) are both significantly and positively related to the degree of true earnings management (*REM*) at the 5% level. Moreover, the regression coefficient of the amount of lawsuits by listed companies (*Liti_amount*) is 0.001, which is

significant at the 1% level. This result is consistent with the results of the previous correlation analysis. It indicates that, all other things being equal, if a listed company is involved in litigation in the previous year and the number of litigation in the previous year is higher and the amount of litigation is larger, it means that its litigation risk is higher. Then the company will have a stronger incentive to manage its earnings in order to cover up its risk, and the degree of earnings management will increase as a result. This verifies hypotheses H2a, H2b and H2c.

5.2.3. The mediating effect of earnings management on litigation risk affecting audit fees

Based on the test of mediating effect proposed by Zhonglin Wen and Baojuan Ye, Table 3, Table 4 and Table 5 together verify whether earnings management plays a mediating role in the influence of litigation risk and audit fees. Table 3 verifies the first step, i.e., the regression results of the sample in model (5) show that a company's litigation risk significantly increases its audit fees. Table 4 then verifies the second step, which shows that the higher the litigation risk of a company, the higher its degree of earnings management will be. Thus Table 5 below is the validation of the third step.

Table 5. Regression results of litigation risk, earnings management, and audit fees

	(1)	(2)	(3)
	<i>Lnfee</i>	<i>Lnfee</i>	<i>Lnfee</i>
<i>Liti_dum</i>	0.071***		
	(8.69)		
<i>Liti_count</i>		0.014***	
		(7.58)	
<i>Liti_amount</i>			0.004***
			(7.91)
<i>REM</i>	0.058***	0.058***	0.058***
	(3.42)	(3.44)	(3.40)
<i>Size</i>	0.373***	0.372***	0.373***
	(109.27)	(109.09)	(109.20)
<i>SOE</i>	-0.050***	-0.050***	-0.051***
	(-7.46)	(-7.44)	(-7.51)
<i>LEV</i>	0.066***	0.070***	0.066***
	(3.43)	(3.67)	(3.46)
<i>ROA</i>	-0.523***	-0.518***	-0.521***
	(-8.34)	(-8.25)	(-8.31)
<i>Growth</i>	0.001	0.002	0.001
	(0.16)	(0.27)	(0.18)
<i>Loss</i>	0.037***	0.038***	0.037***
	(2.95)	(3.03)	(3.01)
<i>IR</i>	0.013	0.011	0.013
	(0.66)	(0.52)	(0.62)
<i>Dual</i>	0.005	0.004	0.005
	(0.70)	(0.63)	(0.69)
<i>OP</i>	0.195***	0.193***	0.195***
	(11.65)	(11.40)	(11.65)
<i>Big4</i>	0.638***	0.638***	0.638***
	(37.51)	(37.43)	(37.47)
<i>Industry</i>	YES	YES	YES
<i>Year</i>	YES	YES	YES
<i>_cons</i>	5.380***	5.400***	5.390***
	(74.54)	(74.85)	(74.73)
<i>N</i>	19969	19969	19969
<i>R²</i>	0.656	0.656	0.656
<i>F</i>	921.339	919.531	920.392

Note: t-values in parentheses, ***, **, * indicate significant at the 1%, 5%, and 10% levels.

The third step is the regression of model (7). As shown in the table below, the three proxy variables for the firm's litigation risk: the coefficient of whether or not involved in litigation (*Liti_dum*) is 0.071, the coefficient of the number of lawsuits (*Liti_count*) is 0.014, and the coefficient of the amount of litigation (*Liti_amount*) is 0.004, and all are significant. In addition, the degree of earnings management as a mediating variable is also significantly and positively correlated at the 1% level.

Since the coefficients α_1 , β_1 and γ_2 are significant, Sobel test is not required. Therefore, according to the stepwise test for the mediating effect, it is known that there is a mediating effect in the degree of earnings management. Moreover, the coefficient γ_1 in model (7) is significant, indicating that earnings management plays a partial mediating effect in the process of litigation risk affecting audit fees. The amount of the mediating effect is calculated to be 0.64%, 0.77%, and 1.45%, respectively.

5.3. Robustness Tests

Litigation data from the prior period have been used in the main regression analysis of this paper. This avoids to a certain extent the influence of endogeneity issues such as the mutual causality between corporate litigation risk and earnings management. In addition, in order to make the regressions more reliable and enhance the robustness of the findings, this paper draws on the approach of Kangsheng Zhao, Ping Zhou and Yubo Liu (2017), which uses $\ln$ (the number of lawsuits in the previous year of the firm + 1) to replace the measure of firm litigation risk and re-runs the regressions.

Table 6. The impact of litigation risk on audit fees and its path analysis

	(1)	(2)	(3)
	<i>Lnfee</i>	<i>REM</i>	<i>Lnfee</i>
<i>Liti_count</i>	0.055***	0.006***	0.054***
	(8.81)	(2.64)	(8.72)
<i>REM</i>			0.084***
			(3.86)
<i>Size</i>	0.371***	-0.006***	0.371***
	(109.69)	(-5.48)	(109.63)
<i>SOE</i>	-0.051***	-0.009***	-0.050***
	(-7.53)	(-4.04)	(-7.41)
<i>LEV</i>	0.072***	0.040***	0.069***
	(3.79)	(6.00)	(3.60)
<i>ROA</i>	-0.472***	0.572***	-0.520***
	(-7.72)	(21.28)	(-8.27)
<i>Growth</i>	0.006	0.048***	0.002
	(0.96)	(14.15)	(0.35)
<i>Loss</i>	0.043***	0.072***	0.037***
	(3.50)	(16.91)	(2.98)
<i>IR</i>	0.011	0.015*	0.010
	(0.55)	(1.92)	(0.49)
<i>Dual</i>	0.004	0.006***	0.004
	(0.67)	(2.70)	(0.59)
<i>OP</i>	0.194***	0.029***	0.191***
	(11.52)	(4.45)	(11.35)
<i>Big4</i>	0.633***	-0.001	0.633***
	(37.68)	(-0.30)	(37.72)
<i>Industry</i>	YES	YES	YES
<i>Year</i>	YES	YES	YES
<i>_cons</i>	5.435***	0.215***	5.417***
	(76.11)	(9.25)	(75.64)
<i>N</i>	19969	19969	19969
<i>R</i> ²	0.655	0.137	0.655
<i>F</i>	970.471	59.166	942.411

Note: t-values in parentheses, ***, **, * indicate significant at the 1%, 5%, and 10% levels.

Table 6 above shows the regression results after changing the measurement. The number of lawsuits is still significantly and positively related to the explanatory variable audit fees. And it is significantly and positively correlated with the mediating variable degree of earnings management. This indicates that the higher the number of lawsuits in the previous year of the listed company will lead to a higher level of earnings management of the company and the higher the audit fees price the firm will ask the company to pay. Column (3) is the result of model (7), which considers both litigation risk and the degree of earnings management. Moreover, both the degree of earnings management and the number of lawsuits are still significantly and positively related to the audit fees ($p < 0.01$). Thus, it can be seen that the degree of earnings management in the company's business process plays a partly mediating role in the process of the company's litigation risk affecting audit fees, which is consistent with the regression results in the previous paper. Therefore, the robustness of this paper is somewhat verified.

6. Research Conclusions and Recommendations

6.1. Research Conclusions

The relationship between corporate litigation risk, earnings management and audit fees is the main question explored in this paper. In this paper, the sample is limited to non-financial companies listed on SSE and SZSE from 2012-2019. After analyzing the annual observations of these companies in theoretical as well as empirical tests, the following conclusions are drawn:

First, for hypothesis H1, the relationship between firm litigation risk and audit fees. In this paper, a multiple regression analysis of the model was conducted using three proxy variables for litigation risk. The results obtained indicate that the litigation risk of listed companies has a significant positive effect on the fees charged by firms. In other words, as the litigation risk of listed companies increases, CPAs will need to invest more resources costs such as human, material, and financial resources because of the extra investment. And there may be a risk of being sued after the audit. Therefore, the firm will ask the listed company to pay a higher price for the audit fees to compensate.

Second, for hypothesis H2, the relationship between corporate litigation risk and earnings management. In this paper, the regression analysis of the model concludes that the litigation risk of listed companies has a significant positive effect on the degree of earnings management of the company. The earnings management here is measured by the true degree of earnings management of the listed company. This indicates that the greater the litigation risk of a company, the stronger the managers will be motivated to manage their earnings in order to get back their reputation and deliver good information to the outside world to maintain normal operations. At the same time, in order not to be detected by external regulation, they often choose to adopt true earnings management behavior.

Third, for hypothesis H3, this paper finds through empirical testing that earnings management plays a significant partial mediating effect in the process of company's litigation risk affecting audit fees. It indicates that an increase in litigation risk of listed companies will, in part, increase the level of audit fees by making the true degree of earnings management of the company increase.

6.2. Related Recommendations

Combining the findings of this paper, the following recommendations are made:

First, for the company itself, it should constantly review itself, improve the level of governance, establish a sound internal governance mechanism, reduce the occurrence of litigation from the source and promote the healthy and sustainable development of the company. At the same time, it should establish the awareness of risk control, reasonably assess the existence of various risks, establish a sound risk prevention and control mechanism, and reduce the occurrence of litigation, arbitration and regulatory penalties. Relevant departments, such as legal affairs, should always pay attention to the legal risks that the company may face and improve the ability to identify litigation risks. After the occurrence of litigation cases, they should also take corresponding measures in a timely manner to minimize the losses caused by litigation.

Secondly, for the regulators, although the current legal environment in China has been greatly improved, there are still some problems of insufficient supervision. Therefore, the government should strengthen and improve the construction of the relevant legal system, maintain order in the market environment and strengthen the supervision of the quality of information disclosure of listed companies. Thus, the legitimate rights and interests of investors and other stakeholders can be protected. While achieving compliance with the law, it is also necessary to improve the corresponding level of law enforcement, so as to achieve a deterrent effect on listed companies, as well as firms, and improve the quality of accounting information disclosed by companies.

Third, for accounting firms, auditors need to pay full attention to the significant risks of the client company under the risk-based audit model, improve their own legal knowledge, and reasonably assess the litigation risks arising from litigation and arbitration cases that have already occurred, as well as from possible future litigation and arbitration and penalties and other events. The audit plan and procedures should be adjusted to reduce the audit risk to an acceptable level while charging a reasonable audit fees.

6.3. Shortcomings and Prospects

Combining the above findings, after deeper reflection, it is found that the following shortcomings still exist in this paper:

First, the three proxy variables used to measure the litigation risk of companies collected from the annual reports of listed companies in this paper only consider the litigation risk in a narrow sense. The possible litigation risk of the company is not considered and lacks some comprehensiveness. Therefore, future studies may consider other perspectives to measure the litigation risk of companies.

Second, this paper uses only annual totals for the number of company lawsuits and the amount of lawsuits. There is no breakdown of which cases the company is acting as a plaintiff and which cases as a defendant. And there is no breakdown of the types of litigation cases. Next, the impact of different types of litigation cases can be studied more specifically.

Third, the selection of control variables in this paper is not comprehensive enough. There are still many factors affecting the three main variables. This paper only selects some of the more significant factors, which is still not perfect.

References

- [1] Venkataraman R, Weber J, Willenborg M. Litigation risk, audit quality, and audit fees: evidence from initial public offerings [J]. *The Accounting Review*, 2008, 83 (5): 1315 - 1345.
- [2] Abbott L, Gunny K, Pollard T. The impact of litigation risk on auditor pricing behavior: evidence from reverse mergers [J]. *Contemporary Accounting Research*, 2017, 34 (2): 1103 - 1127.
- [3] Bronson S, Ghosh A, Hogan C. Audit fees differential, audit effort, and litigation risk: an examination of ADR firms [J]. *Contemporary Accounting Research*, 2017, 34 (1): 83 - 117.
- [4] Chung H, Hillegeist S, Wynn J. Directors' and officers' legal liability insurance and audit pricing[J]. *Journal of Accounting and Public Policy*, 2015 (6): 551 - 577.
- [5] Badertscher B, Jorgensen B, Katz S, et al. public equity and audit pricing in the United States [J]. *Journal of Accounting Research*, 2014, 52 (2): 303 - 339.
- [6] DeFond M, Lim C, Zang Y. Client conservatism and auditor-client contracting [J]. *The Accounting Review*, 2016, 91 (1): 69 - 98.
- [7] Hu Yuanmu, Guo Tian. An empirical study of legal risks and audit fees of listed companies[J]. *Dongyue Series*, 2014, 35 (11): 133 - 139.
- [8] Zhang Junrui, Liu Hui, Yang Bei. A study on the impact of pending litigation on audit fees and audit opinion types [J]. *Audit Research*, 2015 (1): 67 - 74.
- [9] Huang Chao, Huang Jun. Short-selling mechanism, litigation risk and audit fees [J]. *Financial Research*, 2016, 42 (5): 77 - 87.

- [10] Xu Zongyu, Yang Yuanyuan. Female executives, litigation risk and audit fees [J]. Research in Financial Economics, 2020, 35(5): 132 - 146.
- [11] Jiang Tao, Shang Ding. Research on the impact of corporate litigation risk on audit decisions - Evidence based on abnormal audit fees and audit opinions [J]. Journal of Nanjing Audit University, 2020, 17 (3): 13 - 22.
- [12] Liu Yingfei, Zhang Xiaohu. Corporate litigation risk and audit fees - based on the perspective of disclosure of key audit matters [J]. Audit and Economic Research, 2019, 34 (6): 33 - 45.
- [13] Ji Yafang, Luan Fugui, Ding Yi. Corporate litigation and audit fees-mediating effects based on business risk[J]. Journal of Management, 2020, 33 (3): 48 - 60.
- [14] Gul F, Chen C, Tsui J. Discretionary accounting accruals, managers' incentives and audit fees [J]. Contemporary Accounting Research, 2003, 20 (3): 441 - 464.
- [15] Hong D, Dowdell T, Herda D. An examination of the relationship between audit fees and real earnings management using a simultaneous equations model [J]. Advances in quantitative Analysis of Finance and Accounting, 2014 (12): 251 - 285.
- [16] Liu, Xueni, Xu Ke. An empirical study of corporate governance, earnings management and audit fees [J]. Journal of Finance and Accounting, 2011 (3): 46 - 48.
- [17] Long Yuee, Zhang Jun. Changes in accounting standards, earnings management and CPA assurance [J]. Journal of Nanjing Audit Institute, 2013, 10 (2): 88 - 96.
- [18] Song Yinghui, Chen Junshen. The impact of true earnings management on audit fees - data from Chinese A-share listed companies [J]. Taxation and Economics, 2017 (4): 65 - 73.
- [19] Shao Jianbing, Chen Yonghen. Executive equity incentives, earnings management and audit pricing--a perspective based on the heterogeneity of earnings management [J]. Audit and Economic Research, 2018, 33 (1): 44 - 55.
- [20] Wang Xiaoliang, Wang Di, Jiang Yong. A study on academic heterogeneity of executive team, true earnings management and audit fees [J]. China Soft Science, 2019 (9): 175 - 184.
- [21] Wei Zhen. A study on the correlation between executive compensation, earnings management and audit fees [J]. Economic Issues, 2019 (2): 116 - 121+128.
- [22] Zhang Xuehua, Chen Xiaolin. Special general partnership, potential litigation risk of clients and earnings management [J]. Contemporary Finance, 2015 (7): 108 - 117.
- [23] Qian Aimin, Yu Zhi. Litigation risk, nature of property rights, and earnings management[J]. Securities Market Herald, 2017 (7): 16 - 24.
- [24] Shao Yiping, Li Wengui. Litigation risk, auditor selection, and earnings quality[J]. Finance and Economics Series, 2018 (5): 58 - 65.
- [25] Huang Yanni. A study on the relationship between litigation risk, accounting soundness and audit fees of listed companies [D]. Chongqing: Southwest University of Political Science and Law, 2017.
- [26] Lu Yunxue. Exploration on the means of earnings management of listed companies and its impact on financial data [J]. Business News, 2019 (6): 35 - 36.
- [27] He Yanche. The impact of risk-based audit implementation on audit risk [J]. Finance and Accounting Monthly, 2010 (6): 80 - 81.
- [28] Zhao Kansheng, Zhou Ping, Lin Nan. Major shareholders' shareholding and corporate litigation risk: an empirical analysis based on Chinese listed companies [J]. Foreign Economics and Management, 2017, 39 (1): 84 - 95.
- [29] Mahfuz C, Gus D, Barbara S. The effect of auditor litigation risk on clients' access to bank debt: evidence from a quasi-experiment [J]. Journal of Accounting and Economics, 2020, 71 (1): 101 - 127.
- [30] Wang Yanchao, Jiang Guohua, Xin Qingquan. Litigation risk, legal environment and cost of debt [J]. Accounting Research, 2016 (6): 30 - 37+94.
- [31] Hu Yubo. Research on the impact of accounting tax differences and earnings management on the valuation of listed companies [J]. Finance and accounting communication, 2018 (18): 26 - 29.
- [32] Huang Huifang. An empirical study on the size of listed companies, regional characteristics and audit fees - based on 2009 research data of Shenzhen A shares [J]. Friends of Accounting, 2012 (17): 102 - 104.

- [33] Wang Jiang. Dual job, business complexity and audit fees [J]. Science and Technology Economic Journal, 2017 (1): 178 - 180.
- [34] Mou Shaohong, Li Qihang, Yu Linping. Internal control, executive power and audit fees-an empirical study based on data of non-financial listed companies from 2009-2012 [J]. Audit and Economic Research, 2014, 29 (4): 40 - 49.
- [35] Fang Qiaoling, Li Xiaoyan. A study on the impact of accounting firm mergers on audit fees [J]. China Certified Public Accountants, 2011 (2): 63 - 69+2.
- [36] Feng Yinbo, Ye Chengang. The nature of control, auditor expertise and audit pricing [J]. Journal of Beijing University of Technology (Social Science Edition), 2019, 21 (1): 110 - 120.
- [37] Roy Chowdhury S. Earnings management through real activities manipulation. Journal of Accounting and Economics, 2006, 42 (3): 335 - 370.