An Empirical Analysis of the Impact of Independent Director Characteristics on Enterprise Financial Risk

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Abstract. The financial risk of enterprises is crucial to business managers and investors, and the establishment of the independent director system is intended to address the financial risk generated internally by enterprises. However, in recent years, the system of independent directors has increasingly been criticized, and its impact on corporate financial risk is also being questioned. Herein, through empirical research methods, we have studied the relationship between independent directors and financial risk. We found that the opinions of independent directors, their professional backgrounds, and the size of the board of directors have a significant impact on financial risk. This could provide a reference for optimizing the system of independent directors.

1. Introduction

1.1 Research background

Corporate governance is the institutional basis for the healthy development of listed companies. A good corporate governance structure is conducive to promoting the healthy development of the market economy and companies. In order to solve the problem of agency between managers and shareholders, China has gradually established and developed the independent director system. Independent directors perform prominently in corporate governance and play a significant role in the company's financial risk. However, China has introduced this system for 20 years, and its effect has been questioned. The time of Kangmei Pharmaceutical in 2021 will further worsen the image of independent directors.

Therefore, based on the review of the relevant literature on the supervision, management and decision-making of independent directors at home and abroad, this paper selects listed companies with financial risks in China's A-share market from 2014 to 2021 as a sample, starting from the dissenting opinions of independent directors, combines the personal characteristics and corporate structure of independent directors, and analyzes the factors affecting the financial risks of the company by establishing a Logit regression model. Finally, according to the results of empirical analysis, this paper puts forward corresponding policy recommendations to improve corporate governance in China, standardize the operation and management of listed companies, and promote the development of the market economy.

This paper believes that it is of great theoretical and practical significance for China's current corporate governance to study the factors that affect financial risk from the perspective of the characteristics of the types of independent directors' opinions, combined with the personal characteristics of independent directors and their listed companies.

First of all, at the theoretical level, it tests the correlation between the characteristics of independent directors and financial risk in the currently listed companies in China. Through the combination of empirical analysis and theoretical analysis, to verify whether data can verify the relevant research assumptions, this paper attempts to supplement the theories in relevant fields through research on the current financial risk, independent director characteristics and corporate structure of listed companies in China, and provide a complete theoretical basis for the construction of a complete independent director system.

In terms of practical significance, since the introduction of the independent director system into China, many independent directors of listed companies have become "empty shelves" to deal with the supervision department and even fell into the scandal of participating in illegal transactions of companies. At the same time, it is also common for government officials and university scholars who have resigned to serve as independent directors of listed companies in China current listed companies. Whether such independent directors with special status have played a supervisory role in corporate governance has been questioned by most investors. Therefore, this paper takes the dissenting opinions of independent directors on the board of directors as an alternative variable for their adequate supervision; from the aspects of individual characteristics and company characteristics of independent directors, this paper examines the influencing factors of the effectiveness of independent directors' supervision and finds corresponding improvement measures.

1.2 Research method

1. Combination of qualitative and quantitative methods. In this paper, the Z-core and independent directors' data for measuring the financial risk of listed companies come from the CSMAR series of research databases. In contrast, the company-level data comes from the RESSET financial research database. For the incomplete information disclosed by the two databases, it is obtained through Baidu and other search websites.
2. Literature research method. The research of this paper is based on the current domestic and foreign scholars' research on the influencing factors of independent directors' supervision and decision-making. Through collating and summarizing relevant literature, combined with the current requirements of the CSRC on information disclosure of listed companies, and on this basis, further study the financial risk and the change of the strength of independent directors' dissenting opinions.
3. Empirical research. This paper selects non-financial listed companies with dissenting independent directors in China's market from 2014 to 2021 as a sample, combines the characteristics of independent directors at the individual level and the characteristics of the listed company, studies the impact of dissenting opinions of independent directors on the financial risk of the company, and examines whether the financial risk of listed companies will increase when independent directors issue dissenting solid opinions such as "dissenting" and "dissenting".

2. Literature review

2.1 Research based on the opinions of independent directors

According to the relevant regulations of the China Securities Regulatory Commission, listed companies should disclose relevant information to the regulatory authorities and investors, including the independent opinions of independent directors on essential resolutions of the company, so that we can use the type of opinions expressed by independent directors to investigate the regulatory effectiveness of independent directors based on this particular data information.

Ma Yuanqi (2010). [1] selected the data of independent directors in A-share listed companies from 2010 to 2019 to make statistics, and found that some independent directors in the company effectively performed their duties, making the potential problems in the company emerge, and sent signals to the company's stakeholders through the way of public expression of disapproval, causing adverse reactions in the stock market, The independent directors' non-approval opinions reflect the information effect. Tang Xuesong, Du Jun, and Shen Hui (2010) [2] selected independent directors who had dissented from the listed companies in China from 2005 to 2007 as a sample and examined the motivation of independent directors' supervision according to their opinion results. Their research found that independent directors who dissented were more likely to resign. When independent directors held the position of independent directors in several listed companies, they were more likely to dissent. Zhu Jigao, Li Tianshi, Li Xiaohui, and YANG Tianxia [3] studied the reaction of the market and enterprises to directors' disapproval in different ways of expression by taking the disapproval in the announcement of the board meeting of China's A-share listed companies as a sample. The research conclusion shows that there is incremental information on how directors express disapproval; there are significant differences in the governance effects of companies with different property rights. This paper's research conclusions help us better understand the directors' performance behaviour. They have a positive inspiration for improving the information disclosure system of listed companies and the directors' performance ability.

2.2 Research based on the personal characteristics of independent directors

The personal characteristics of independent directors are essential to test whether they realize their supervisory power and play a supervisory role. Nowadays, more and more scholars at home and abroad have shifted the focus of independent directors' supervision ability research from the structure of the board of directors or the proportion of independent directors to the analysis of independent directors' characteristics.

In China, Yu Bo and Xu Xiaodong [4] used the data of listed companies in the Shanghai and Shenzhen stock markets from 2016 to 2020 as samples to conduct multiple linear regression analysis to study the impact of independent director characteristics on the performance of listed real estate companies in China. The study found that the salary level of independent directors in listed real estate companies and the proportion of independent directors on the board significantly correlate with company performance. In contrast, the educational background, gender and age of independent directors have no significant impact on company performance. Liu Hao et al. (2012) [5] Through the empirical analysis of independent directors with bank backgrounds from 2001 to 2008, we found that independent directors with bank backgrounds did not actively play a supervisory role and played more advisory roles in listed companies. Wanbei [6] takes independent directors as the primary research object, focuses on the research and analysis of the personal characteristics of independent directors and the company's violations based on the legal background, aiming to give full play to the critical role of independent directors in maintaining the company's development.

2.3 Research based on independent directors and financial risk

At present, the focus of the relationship between independent directors and financial risk is more on testing whether the introduction of independent directors will reduce the company's financial risk. Judge and Zeithaml (1992) [7] selected the data of 114 independent directors. Their research found that when the proportion of internal directors on the board of directors increased, the company's financial risk increased because when the number of internal directors increased, the board of directors' intervention in the company's business decisions decreased, and the management was not effectively supervised. Mueller and Barker (1997) [8] found in the analysis of more than 30 listed companies in the United States that when the chairman of the company concurrently serves as the general manager, the probability of the company's financial risk will increase. However, when the number of external directors increases, the company's financial risk will be significantly reduced. Therefore, introducing external directors can significantly improve the company's financial situation. Many scholars in China have conducted empirical research on the relationship between independent directors and financial risk. Yang Jinzheng and Zhu Hongchun (2022) [9] selected the companies whose independent directors resigned abnormally in listed companies in November 2021 due to the pharmaceutical fraud event within one month as the research object. The research shows that the independent directors of listed companies with higher financial risks have a higher probability of resigning. At the same time, this paper further tests the results of the empirical analysis by combining relevant cases. The attendance rate of independent directors and the number of independent opinions issued in the case are significantly correlated with the financial risk of the enterprise, which further supports the results of this empirical analysis. The research conclusion of this paper further reveals the impact of independent directors' performance on corporate financial risk.

3. Sample selection and study design

3.1 Data source and sample selection

3.1.1 Data source

This paper selects listed companies with dissenting independent directors from 2014 to 2021 as the sample. Since the financial risk measurement method of financial companies is significantly different from that of listed companies in non-financial industries, we exclude the data of listed companies in financial industries. In this paper, the relevant data of independent directors (such as the opinions of independent directors, professional background of independent directors, Etc.) are all from the CSMAR series of research databases.

The CSMAR database divides the opinions of independent directors into seven categories: (1) "accept", (2) "reserve", (3) "dissent", (4) "cannot express opinions", (5) "abstain" (6) "raise objections" (7) "other". In this paper, we define (1) "acceptance" as independent directors' not expressing dissenting opinions, while the remaining six items are classified as dissenting opinions. One point to be noted here is that in the data processing process, an independent director expressed dissenting opinions on several proposals of a listed company on the same day. For such cases, we combined such repetitive data and took only one dissenting opinion as our research sample. Table 4.1 summarizes the types of independent directors' opinions in different periods, from which we can see that the number of independent directors' opinions is increasing over time. By 2021, the independent directors of listed companies will have issued more than 500 dissenting opinions. However, the proportion of dissenting opinions in the unqualified opinions has stayed within 7% each year, which indicates that the independent directors of listed companies in China have low enthusiasm for dissenting opinions.

Table 3.1 Types of opinions of independent directors

	2014	2015	2016	2017	2018	2019	2020	2021
General comments take advice	5966	4463	2692	2231	2212	2098	3518	3351
accept	5915	4416	2661	2197	2122	1969	3412	3268
separate opinion								
retain	2	3	3	8	38	14	20	16
opposition	10	14	10	10	10	32	20	22
No comment	1	4	2	4	2	22	10	14
waiver	6	23	16	11	33	42	53	24
objection	1	2	0	1	6	0	0	2
other	31	1	0	0	1	19	3	5
Number of dissenting opinions	51	47	31	34	90	129	106	83
Proportion	0.008548441	0.010531033	0.011515602	0.015239803	0.040687161	0.061487131	0.030130756	0.024768726

3.2 Research Assumptions

(1) The impact of financial risks of listed companies on the types of independent directors' opinions

According to the relevant regulations of the China Securities Regulatory Commission, listed companies need to disclose relevant information to regulatory authorities and investors, especially the voting opinions of independent directors on significant events of listed companies. If the proposal of the board of directors causes severe losses to the interests of the company and shareholders, the independent directors need to be held accountable. In addition to bearing the corresponding economic losses, the accountability mechanism for other aspects should also be strengthened, but the independent directors who dissent from the resolution can be exempted. Therefore, independent directors of rational people, based on the consideration of reputation and future human capital preservation, tend to express dissenting opinions after discovering the risks of listed companies. At the same time, when the financial risk increases, the insecurity of independent directors will increase, and the intensity of their dissent will also increase. For the decisions of the board of directors, they will tend to express more substantial dissent to safeguard the company's overall interests and protect the legitimate interests of shareholders, especially small and medium-sized shareholders. Therefore, this paper puts forward the following assumptions:

H1: The company's financial risk will increase as the independent directors express more dissenting opinions.

(2) The impact of independent directors' professional backgrounds on their dissenting opinions. Independent directors of the same company will have different results when voting on the same proposal. Similarly, independent directors of different companies also show significant differences when expressing their independent opinions. Therefore, some potential factors may affect independent directors' supervision roles. According to the Report on the Governance of Listed Companies in Shenzhen Stock Exchange in 2012 [10] released by Shenzhen Stock Exchange in 2013, in the investigation of the background of independent directors, 42% of the listed companies in the primary board market of Shenzhen Stock Exchange are independent directors of university scholars, and 15.5% of retired officials, while the proportion of experts in various industries is relatively low, accounting for only 4.7%. This paper focuses on independent directors' financial and legal backgrounds. According to the requirements of the CSRC, independent directors in listed companies need to include at least one relevant person with an accounting background. This is mainly because of the complexity of management and risk diversity of listed companies, and different independent directors will also have different judgments on the problems in the company's operation process; therefore, when exercising the supervision power, independent directors often express different opinions based on their own experience and judgment on the company's problems. Therefore, those independent directors with financial and accounting backgrounds can quickly find the company's financial problems and raise objections to the board of directors' proposal with their professional knowledge. At the same time, independent directors with financial and accounting backgrounds can also provide related consulting services for the business activities of listed companies, solve the risk problems arising from the business process of listed companies, and exercise supervision functions. Independent directors with a legal background and legal knowledge or relevant professional experience can promote the standardized operation of listed companies, strengthen supervision on significant issues affecting the company's operation, and thus prevent the risks of enterprises

Therefore, we propose the following assumptions:

H2: Independent directors with financial and legal backgrounds will reduce the company's financial risk.

The influence of the size of the board of directors of listed companies on the dissenting opinions of independent directors. From the literature review of domestic and foreign scholars, the influence of the board structure on the supervision ability of independent directors is still controversial. On the one hand, if the independent director can communicate effectively with the company's decision-making level, then the independent director tends to communicate with the decision-making level in a friendly way in advance rather than publicly express dissent. At the same time, if the proportion of independent directors in the board structure of listed companies is relatively high, and there are many constraints in the company's operation and management, we expect that the company's operation will be better and better and independent directors are not necessary to express dissent. However, on the other hand, if the independent directors account for a high proportion of the board of directors and the company has solid administrative constraints on the decision-making level. When the company has problems, the independent directors have the ability and are willing to raise objections to the company's major issues. At the same time, if the board of directors is large, there are many internal and independent directors so that they can consider the company's current operating conditions from all aspects. It is also easier to find out the possible damage to the company's and shareholders' interests caused by the board of directors. Hence, the independent board of directors is more inclined to express dissenting opinions. In this paper, we tend to think that the independence of the board structure will affect the independent directors' dissenting opinions, so we propose the following assumptions:

H3: When the board of directors is large, the company's financial risk will be reduced.

3.3 Research design

3.3.1 Model establishment

（1） Logit model

In order to test whether the type of independent directors' opinions will affect the financial risk, we establish the following model:

Logit(Zscore) = a0+a1opinion+ a2Econimics +a3Accountant+a4Lawyer+a5Degree+a6Gender +a7Age+a8Oficial+a9Bsize+a10IDR+a11Dual+E

In this model, we take the dissenting opinions of independent directors as the substitute variable of their supervision effectiveness and select the Z-score value as the indicator to measure the financial risk of listed companies to observe the impact of financial risk on the types of independent directors' opinions of listed companies.

3.3.2 Variable definition

Explained variable - company financial risk (Z-core)
Many scholars at home and abroad have confirmed through empirical research that Altman's Z-score model is more accurate in predicting the financial health of non-financial enterprises. Therefore, this paper selects Altman's multiple discriminant models. One point that needs to be explained here is that this paper studies the impact of financial risk on the dissenting opinions of independent directors, and the type of independent directors' opinions is mainly based on the evaluation of the company's previous financial situation.
Explanatory variable - opinion of independent director
In this paper, the dissenting opinions of independent directors are regarded as a form of performance of their supervision duties. The independent board of directors expresses its own independent opinions based on the judgment of the enterprise's business decisions to perform its supervision functions.
(3) Control variables
In terms of control variables, this paper considers the individual level and the company level of independent directors. This paper selects the size of the board of directors (Bsize), the ratio of independent directors (IDR) and the combination of two positions (Dual) as the control variables and also controls the educational background (Degree), occupational background (Occupations), gender (Gender) and age (Age). See Table 3.3

Table 3.3 Variable definition

	Variable symbol	Variable definition
Interpreted variable		
financial risk	Z-score	Modified Z-core
Explanatory variable		
separate opinion	opinion	Whether the independent directors express dissenting opinions, if yes, it is 1, otherwise it is 0
Opinion intensity	Neg-opinion	The independent director's opinion is "agree" and the value is 0. The independent director's opinion is "reserved", "cannot express opinions", "abstain" and "other" and the value is 1; The independent director's opinion is "Objection" and the value of "Objection" is 2
control variable		
Personal characteristic variable		
educational background	Degree	The value of high school and below is 1, college is 2, university is 3, master's degree is 4, and doctor's degree is 5
Financial background	Economist	When the independent director is an economist or engaged in financial services, the value of Economist is 1, otherwise it is 0;
Accounting background	Accountant	When the independent director is a certified public accountant or auditor, or has the background of accounting expertise, the value of Accountant is 1, otherwise it is 0
Legal background	Lawyer	When the independent director is a lawyer or prosecutor, the value of Lawyer is 1, otherwise it is 0
Gender	Gender	If the gender of independent director is male, the value is 1, otherwise it is 0
Age	Age	The value of independent director over 60 years old is 1, otherwise 0
Company characteristics variables		
Board size	Bsize	Total number of all directors in the board of directors
Ratio of independent directors	IDR	Proportion of independent directors in the board of directors
Two positions in one	Dual	When the chairman and general manager are held by one person, the value is 1, otherwise 0

4. Empirical results and analysis

4.1 Descriptive statistics

Table 4.1 is the descriptive statistics of the main variables of the dissenting opinions of independent directors. We have made a descriptive analysis of the main variables of the listed companies with no dissenting independent directors and the listed companies with dissenting independent directors from the financial risk, the individual level of independent directors and the level of listed companies. In terms of financial risk, the Z-score of the experimental group is lower than that of the control group. According to our variable definition, the smaller the Z-score is, the greater the financial risk of the enterprise is. The independent board of directors is more inclined to express dissenting opinions. This is consistent with our assumption H1. In terms of personal characteristics, it can be seen from Table 4.1 that the average degree of the experimental group is 4, indicating that the average degree of independent directors is a master's. At the same time, the accountants and lawyers of the experimental group are higher than those of the control group. In other words, compared with the independent directors who have no dissenting opinions, the independent directors of the experimental group, that is, the independent directors who have dissenting opinions, if they have an accounting background, legal background, and are relatively older, they have the support of the government, as well as their professional knowledge and rich experience, so they are more likely to dissent on significant issues of the company, This is consistent with our assumptions H3 and H4. At the company level, in Table 4.1, we find that the IDR of companies with independent directors' dissenting opinions is lower than that of companies without independent directors' dissenting opinions, which indicates that the regulatory mechanism of listed companies is weak when the proportion of independent directors is relatively low. The internal and independent directors of the board of directors are more active in performing their regulatory responsibilities, and the probability of dissenting opinions will also increase. In terms of the size of the board of directors, compared with the listed companies with no dissenting independent directors, the listed companies with dissenting independent directors have a larger size of the board of directors, which means that the larger the size of the board of directors, the more independent directors and other directors in the board of directors, and they can distinguish the company's problems from their professional advantages and experience, and express dissent opinions on relevant resolutions.

Table 4.1 Descriptive statistics of main variables of independent directors' dissenting opinion

Variable	mean	Sta.Dev.	mean	Sta.Dev.
	Neg-opinion=0		Neg-opinion=1	
Z-score	5.422552	10.30779	4.336606	10.51992
Degree	4.163256	0.9089388	4.151134	0.8362555
Economists	0.2705012	0.4442249	0.3098237	0.4630043
Accountant	0.3740891	0.4838936	0.4005038	0.4906188
Lawyer	0.2651961	0.4414438	0.3073048	0.461959
Age	0.1994974	0.3996281	0.2141058	0.4107182
Gender	0.8135418	0.3894814	0.7934509	0.4053399
Bsize	8.728023	1.883104	8.717884	1.509568
IDR	37.89853	5.738536	37.10134	5.509676
Dual	0.3131649	0.4637873	0.2392947	0.4271913

Table 4.2 shows the correlation analysis results between the variables of independent directors' dissenting opinions. First of all, we found that there is a negative correlation between opinion and Z-score. At the level of 5% significance, its coefficient is -0.0111, indicating that when independent directors of listed companies express dissenting opinions, the company's financial situation is complex, and Z-score will be small, which is consistent with our assumption H1. In terms of the personal characteristics of independent directors, at the level of 1% significance, the correlation coefficient between Lawyer and Z-score is 0.0047, indicating that the independent board of directors with a lawyer background tends to have a smaller Z-score. Those independent directors who are engaged in the profession of lawyer or prosecutor are more likely to judge whether the resolutions of the board of directors of listed companies are legal and compliant, to express independent opinions on significant issues of the company to promote the standardized operation of the company. At the company level, we found that financial risk is positively correlated with IDR but negatively correlated with the size of the board of directors, which is also consistent with our previous descriptive statistics. When the board of directors is large, all directors have a broader range of professional knowledge. It is easier to detect the problems caused by the company's significant issues in decision-making meetings on the company's operating conditions. Therefore, the larger the board of directors is, the smaller the financial risk will be. In terms of IDR, if the proportion of independent directors is relatively large, the number of independent directors on the board of directors is large, so the company's regulatory mechanism is easier to play a positive role. The company's operation is less likely to get into trouble, so the financial risk is negligible. At the same time, Table 4.2 shows that the correlation coefficient between each variable is less than 0.5, indicating that multicollinearity between variables is mild.

Table 4.2 Correlation analysis of primary variables of independent directors' dissenting opinions

	Zscore	opinion	age	gender	degree	lawyer	accountant	economist	bsize	dual	IDR
Zscore	1.0000										
opinion	-0.0111	1.0000									
age	-0.0380	-0.0012	1.0000								
gender	-0.0144	0.0008	0.0898	1.0000							
degree	-0.0045	-0.0026	-0.1680	0.0468	1.0000						
lawyer	0.0047	0.0076	-0.1120	0.0116	-0.0124	1.0000					
accountant	0.0012	-0.0060	-0.1160	-0.1689	-0.0490	-0.4002	1.0000				
economist	-0.0430	0.0024	-0.0389	0.0194	0.0558	-0.1064	0.0775	1.0000			
bsize	-0.1349	-0.0148	0.0447	0.0254	0.0305	0.0065	-0.0405	0.0239	1.0000		
dual	0.1208	0.0056	-0.0452	-0.0221	-0.0261	0.0085	0.0023	-0.0169	-0.2058	1.0000	
IDR	0.0164	0.0176	0.0139	0.0081	-0.0075	-0.0154	-0.0086	0.0231	-0.4695	0.1052	1.0000

4.2 Regression analysis

In the previous section, in the descriptive statistics of financial risk, individual level of independent directors and company level, we preliminarily evaluated the factors that affected the independent directors' independent opinions. In this section, we used the Logit model established in the previous chapter, combined with the individual characteristics of independent directors and company characteristics, to use the financial risk data of listed companies to regress the types of independent directors' dissenting opinions. The regression results are shown in Table 4.3 and Table 4.4. Table 4.3 shows us the regression results of the impact of independent directors' dissenting opinions and their characteristics on financial risk. According to the results, at the 10% significant level, the regression coefficient of the Z-score is significantly -0.771, indicating that in the case of significant financial risk of the company, independent directors tend to express dissenting opinions, which supports the assumption H1 in this paper. When the listed company's financial situation worsens, the independent directors' reputation, compensation, and welfare may suffer losses. At this time, they will become more cautious about the significant issues of the company, and they are more inclined to raise objections to the decisions that may affect the company's operating conditions. At the same time, it can also be seen from Table 4.3 that in terms of personal characteristics, the coefficients of Lawyer and Accountant are positive and significant, which indicates that independent directors with legal and accounting and government backgrounds are more inclined to express dissenting opinions. Those independent directors with legal and accounting backgrounds often have rich professional knowledge, and they can quickly judge whether the operation of listed companies is legal and compliant and whether there are problems in the company's financial aspects; compared with other directors, independent directors with government background tend to have more experience, and are easier to obtain relevant information and documents of listed companies, so that independent directors can better supervise and manage listed companies, especially for acts that may harm the interests of shareholders, especially small and medium-sized shareholders. The empirical analysis results are consistent with our H2 and H3 expectations.

Then we add the company characteristics, and the results are shown in Table 4.4. From it, we can see that at the 5% significance level, the regression coefficient of the Z-score is -0.951. This again proves that when the company's financial risk increases, the independent board of directors will express more dissenting opinions on the company's major issues. At the same time, the regression coefficients of Lawyer and Accountant are significantly positive, which is consistent with our hypothesis H3, which means that if independent directors have legal or accounting backgrounds, they will be more inclined to express dissenting opinions. At the company level, at the 1% significance level, the coefficient of the board of directors is 0.141, indicating that the size of the board of directors is positively correlated with the dissenting opinions of independent directors. When the board of directors is large, independent directors are more inclined to dissent. That is, financial risks will increase.

Table 4.3 Impact of financial risks and personal characteristics on the types of independent directors' opinions

	Regression
opinion	-2.154162 (0.9582238)
age	-0.2097344 (0.0356954)
gender	-0.050811 (0.0358025)
degree	-0.0113232 (0.0153762)
lawyer	-0.0338837 (0.0346024)
accountant	-0.0457074 (0.0320052)
economist	-0.2200126 (0.0315158)

Table 4.4 Impact of financial risk, personal characteristics and company characteristics on the type of independent directors' opinions

	Regression
opinion	-2.154162 (0.9582238)
age	-0.2097344 (0.0356954)
gender	-0.050811 (0.0358025)
degree	-0.0113232 (0.0153762)
lawyer	-0.0338837 (0.0346024)
accountant	-0.0457074 (0.0320052)
economist	-0.2200126 (0.0315158)
bsize	-0.188506 (0.0088871)
dual	0.4889922 (0.0298997)
IDR	-0.0242935 (0.0027095)

From the above regression of the impact of financial risk on the independent director's dissenting opinion, we can see that financial risk significantly affects the independent director's supervision and decision-making results. When the probability of an independent director's dissenting opinion is higher, the company's financial risk will increase, which is consistent with our assumption H1.

5. Research results and policy recommendations

The results show that:
(1) Through Logit regression of the sample of independent directors' dissenting opinions, we find that when the listing is in financial distress, the probability of independent directors' dissenting opinions increases and the company's financial risk also increases. The independent board of directors can better exercise its supervisory power and question the resolutions of the board of directors to safeguard better the legitimate rights and interests of shareholders, especially small and medium-sized shareholders.
(2) The professional background of independent directors will also affect the company's financial risk. According to the empirical analysis results, independent directors with legal and accounting backgrounds tend to have less financial risk.
(3) At the same time, we also found that the size of the board of directors at the company level will also impact the company's financial risk. However, the empirical analysis results show that the proportion of independent directors has no significant impact on the company's financial risk.
Based on the research conclusion of this paper, the following suggestions are put forward: (1) Improve the incentive mechanism and accountability mechanism of independent directors so that they can actively exercise their supervision function for their reputation and maintain their human resource value. (2) Strengthen the corresponding training for independent directors, make them understand relevant professional knowledge and laws and regulations more comprehensively, actively play the role of supervision and management, and safeguard the company's overall interests.

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