



The Effect of Chairman-Senior Management Team's Vertical Dyad Differences on Risk-Taking in the Information Age

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Abstract. Based on the background of information age, taking 2010–2019 A-share listed companies in Shanghai and Shenzhen stock exchanges as samples, this paper empirically tested the influence of vertical dyad differences in characteristics of the chairman-senior management team on the enterprise risk-taking level under information technology, and investigated the regulatory role of equity incentive. The results show that the vertical dyad differences of the chairman-senior management team's age and tenure can reduce the level of enterprise risk-taking, while the vertical dyad difference of professional experience can improve the level of enterprise risk-taking. Equity incentive can weaken the negative effect of vertical dyad differences of age and tenure on the level of risk-taking, and equity incentive can strengthen the positive impact of vertical dyad differences of professional experience on the level of risk-taking. This paper not only enriches the research of the vertical dyad differences and enterprise risk-taking, but also provides reference for enterprises to use information technology reasonably and manage risks effectively.

Keywords: Vertical Dyad Differences · Risk-Taking · Equity Incentive

1 Introduction

In the information age, the extensive application of information technology makes enterprises face more opportunities and challenges. The level of risk-taking reflects the preference and choice of enterprise decision makers for different risk's levels, which affects the improvement of enterprise performance and the realization of enterprise value. From a rational point of view, enterprises have the courage to take risks, and usually choose projects with high risks but with a net present value greater than zero to enhance the value of the enterprise, and also promote the technological innovation of the enterprises and achieve sustainable social and economic growth. However, in reality, companies taking too high risks may also suffer losses or even face bankruptcy while increasing investment expenditures to accelerate their development; while too low risk-taking enables companies to maintain a stable financial situation, but the enterprise will lack the driving force for sustainable development, and loses development opportunities and competitive advantages. Therefore, Use information technology to maintain appropriate risk-taking

capacity and actively taking risks while avoiding losses caused by excessive risks are important issues that academia and capital markets are concerned about.

The level of risk-taking is often reflected in the decision-making behavior of the enterprise, and the decision-making behavior of the enterprise will be affected by the characteristics of the manager's individual and team. Managers have different growth experiences, knowledge and abilities, background characteristics, etc., and show different degrees of aversion to risks. For example, managers with more experience, knowledge, and greater power may cause managers to be excessive self-confidence, and thus tend to take higher-risk decisions. The Upper Echelons Theory believes that managers in organization have different values, thinking styles, and social experiences, and these differences in characteristics will affect the organization's behavioral choices and have an impact on organizational performance [4]. Therefore, scholars' research has gradually paid attention to the research on the heterogeneity of the executive team based on the personal characteristics of managers, such as age, gender, education, experience, etc. Differences in aspects will affect the decision-making behavior of enterprises. However, the Upper Echelons Theory ignores the influence of the interaction within the executive team due to the difference of rank and team structure on the decision-making of organizational behavior. The Similarity Attraction Theory holds that the more similar team members are, the more likely they are to attract each other. When they have some similar life attitudes, living environments, beliefs and beliefs, they will be more likely to communicate [2]. When they work with others with similar characteristics, the relationship between them will be closer due to the ease of communication. With the expansion of research, the similarity attraction theory also gradually favors demographic variables that are easier to identify and measure, such as age, gender, tenure, education level, ethnicity, etc. Based on the similarity of demographic characteristics to study the interaction between the upper and lower levels of the management team, Tsui et al. introduced the position hierarchy of managers' team members, and believe that the more obvious the difference in demographic characteristics between the boss and the subordinate, the less attractive the boss is to the subordinate, but when the boss has a higher education level and a longer tenure than the subordinate, subordinates are more likely to be attracted by their bosses. This suggests that in executive teams, not only similar characteristics have positive outcomes, but differences in certain characteristics also have beneficial effects [6]. They pointed out in further research that this difference can have a positive effect because it conforms to certain social norms [7]. Each group has corresponding norms and standards, and the individuals in the group must obey the norms and standards and be consistent with the group. This informal mechanism will have an impact on individual behavior. Violation of social norms can lead to inconsistencies and disunity within the team. Under the special cultural background of our country, the behaviors of senior management team are more in compliance with social norms. At the same time, the chairman of the listed company has the greatest authority and represents the highest decision-making power. Influenced by the traditional bureaucratic culture, people are often more sensitive to authority and high-ranking figures, and the interaction of the executive team is more easily affected by the status [1]. Therefore, based on the extensive application of information technology, this paper examines the internal impact mechanism of the interaction of the senior management team on the level of enterprise

risk taking from the differences in the vertical pair characteristics of the chairman and the senior management team.

Influenced by the traditional Confucian doctrine of the golden mean, the overall risk-taking level of listed companies in my country is relatively low, and managers often avoid taking risks and give up high-risk investment projects with a positive net present value out of their own interests. With equity incentive, the synergy of benefits brought about by the increase in executive shareholding ratios can prompt risk-averse executives to choose higher-risk projects, reduce the probability of managers adopting “second-best” strategies, and improve the risk-taking of enterprises. However, there are also studies that the increase of shareholding ratio is more likely to trigger executives’ selfish behavior and become their rent-seeking tool. Executives are reluctant to accept the loss of project failure and choose to avoid risks. This shows that the effect and micro-mechanism of equity incentive to solve the agency problem still needs to be further studied.

Based on the above analysis, this paper is based on the similarity attraction theory and social norm theory, based on easily identifiable and quantifiable demographic variables, including age, tenure, professional experience, examines the effect of the vertical dyad differences between chairman and other members of the senior management team on corporate risk taking, and further examines the moderating effect of equity incentive on the relationship between them. The contribution of this paper lies in the following: the existing research on vertical dyad differences mainly focuses on the effect of vertical dyad differences on executive turnover rate, earnings management, innovation investment, etc., while less attention is paid to risk-taking, and there is a lack of research on the relationship between the three factors including equity incentive. The research in this paper not only provides empirical evidence for the research on vertical dyad differences based on similarity attraction theory and social norm theory, but also reveals the mechanism of enterprise’s management team interaction on risk-taking. And this paper provides theoretical reference for enterprises to establish a micro risk management mechanism and the implementation of equity incentive mechanism in the information age.

2 Theoretical Analysis and Research Hypotheses

2.1 The Vertical Dyad Differences and Risk-Taking

2.1.1 The Vertical Dyad Difference of Age and Risk-Taking

Age is an important demographic characteristic, and managers of different ages have different attitudes towards risk. Usually, older managers have accumulated rich social resources and work experience in their work, often act according to industry standards or experience paradigms, and are more cautious in corporate decision-making to avoid losses to their own reputation and prestige due to mistakes. And with age, managers’ ability to accept new things and new knowledge gradually weakens, and they become more resistant to change and averse risk. On the other hand, young managers have stronger learning ability, and are good at seizing and taking advantage of opportunities, and have an adventurous spirit [9]. Therefore, when the age gap between the chairman and the senior management team is large, there will be a large difference in risk preference.

At the same time, age is closely related to power and prestige. Older managers have more company rights, which restrict the business activities of young managers. The greater the vertical age difference between the chairman and the senior management team, the older chairman tends to use power and prestige to play a dominant role in corporate decision-making, prompting the senior management team to adopt a prudent management method; Younger executives are more likely to defer to the chairman's risk-averse decisions because of their authority and the social order created by age. Therefore, this paper proposes the hypothesis:

H1a: The vertical dyad difference of age between chairman and senior management team is negatively related to enterprise risk-taking.

2.1.2 The Vertical Dyad Difference of Tenure and Risk-Taking

Managers' experience will gradually accumulate with their tenure, and the decision-making preference will be continuously corrected in the business process. From a strategic point, managers with shorter tenures are more open to external information, are more sensitive to external information, and are more likely to find out the match between corporate strategy and external environment. Therefore, they are more inclined to carry out strategic changes, while the senior management team with a longer tenure is more willing to maintain the stability and effectiveness of the corporate strategy and avoid change and innovation. In addition, managers with a short tenure are more eager to achieve higher performance due to career considerations, so they choose high-risk projects. Managers with a long tenure have relatively stable career development and less room for promotion, and tend to choose stable ones to maintain current status. If the greater the vertical dyad difference of tenure between the chairman and the senior management team, the greater the difference in their preference for risk projects, which will lead to differences in enterprise decision-making and decrease team cohesion and decision-making efficiency. At the same time, when the tenure of the chairman is longer than the average tenure of the senior management team, the chairman usually has a better understanding of the company. Based on the theory of social norms, the senior management team will make certain compromises out of respect for the chairman, thereby reducing the risk-taking ability of the enterprise. Accordingly, this paper proposes the hypothesis:

H1b: The vertical dyad difference of tenure between chairman and senior management team is negatively related to enterprise risk-taking.

2.1.3 The Vertical Dyad Difference of Professional Experience and Risk-Taking

Market competition is intensifying day by day, enterprises have higher and higher requirements for talents, and compound talents are more favored by enterprises. Once such talents are hired, they are often placed with high expectations. Out of the pursuit of reputation, they will take the initiative to take risks in order to improve their performance and show their ability. At the same time, compound talents have rich professional experience and high comprehensive quality, which is helpful for enterprises to make correct decisions, improve performance, and maintain appropriate risk-taking levels. When executives make decisions, they will comprehensively use various abilities acquired in their professional experience, and executives with rich professional experience will

have strong adaptability and innovation ability. And senior executives with experience in production, finance, marketing, R&D and other departments generally have diversified knowledge and experience, stronger comprehensive ability, more social resources, have a good understanding of corporate risk-taking, and can actively deal with risks [5]. This shows that when the vertical dyad difference of professional experience between chairman and the senior management team is significantly different, the chairman with rich professional experience tends to have rich experience, professional skills and knowledge, and higher comprehensive quality, and tends to provide the senior management team with more information and resources, reducing information asymmetry, thereby improving the awareness and understanding of risk among senior management teams with less professional experience, enabling them to actively take risks. Therefore, this paper proposes the hypothesis:

H1c: The vertical dyad difference of professional experience between chairman and senior management team is positively related to corporate risk-taking.

2.2 The Impact of Equity Incentive

The principal-agent problem is prevalent in enterprises. For the sake of personal interests such as reputation and career, managers may avoid excessive risks and give up projects that can increase the value of the company but have high risks, thus violating the interests of shareholders. To solve the agency problem, long-term incentive that combining the benefits available to executives with the future performance of the firm play an important role. However, as a long-term incentive tool, there are two different viewpoints in the research on the impact of equity incentive on the level of enterprise risk taking: risk-taking effect and risk-aversion effect.

The risk-taking effect believes that the long-term nature of equity incentive allows the incentive objects to have a long-term vision. Granting equity to managers makes the their value change with the value of the company, and is consistent with the interests of shareholders, which can effectively motivate managers to actively take risks, make decisions with the goal of maximizing company value, and produce a benefit convergence effect. According to the signal transmission theory, when the management has a high shareholding ratio, it will send a signal to the outside that it will not violate the interests of the company and shareholders [3]. Equity incentive for executives will make executives have a long-term vision, pay more attention to the overall interests and long-term development of the company, and at the same time make them have more voice and actively express their opinions in corporate decision-making. If the vertical dyad differences of age and tenure are greater, the company tends to make more conservative and stable decisions. The motivated executives stand in the overall interests of the company and dare to express their ideas, which will prompt the chairman to accept appropriate risky decisions, and improve the risk-taking level of the enterprise; if there are large vertical dyad differences of professional experience, the difference in this demographic characteristic makes the enterprise have a higher risk-taking ability, and the equity incentive for executives will be more effective. Making it easier for executives to reach agreement with the chairman increases the likelihood of challenging risks in business operations.

The risk-aversion effect believes that equity incentive cannot be an effective means of motivating executives. On the contrary, there may be the Entrenchment Effect. On the

one hand, equity incentive increase the shareholding ratio of senior executives, and senior executives have more control over the enterprise, which is more likely to produce opportunistic behavior for personal gain, leading to serious rent-seeking behavior and reducing enterprise value. Our country's governance mechanism and supervision mechanism are not perfect, and equity incentive is more difficult to play the incentive role. On the other hand, the uncertainty of the returns of high-risk investment projects and the long payback period will reduce the controllable resources of senior executives and require them to bear the risk of investment failure, while equity incentive prevents senior executives from effectively diversifying risks through diversified investment as shareholders do. Therefore, senior executives may avoid risks and give up high-risk investment projects that are conducive to increasing enterprise value when making project decisions. The higher the stakes, the more sensitive the executives are to losses and the less willing they are to take risks. Therefore, when the vertical dyad differences of age and tenure are large, the older chairman with a longer tenure tends to operate stably, and older and longer-serving chairmen tend to operate steadily, and equity incentive for senior executives can keep the senior management team and chairman consistent in the choice of risk-aversion. However, when the vertical dyad differences of professional experience are large, the chairman with richer professional experience is more inclined to actively take risks, and the equity incentive for executives make them pursuit more personal interests, so that the chairman's high-risk decision-making cannot be supported, reducing the efficiency of decision-making, so that the enterprise can make lower-risk decisions.

Based on the above analysis, this paper proposes a competitive hypothesis:

H2a: Equity incentive can weaken the negative impact of the vertical dyad differences of age and tenure on the enterprise risk-taking level; strengthen the positive effects of the vertical dyad differences of professional experience on the enterprise risk-taking level.

H2b: Equity incentive can strengthen the negative impact of the vertical dyad differences of age and tenure on the enterprise risk-taking level; strengthen the positive effects of the vertical dyad differences of professional experience on the enterprise risk-taking level.

3 Research Design

3.1 Definition of Variables

3.1.1 Explanatory Variables

The explanatory variable in this paper is the vertical dyad differences of the chairman-senior executive team. Drawing on previous research, the senior management team is defined as the chairman, general manager, manager, president, board secretary, chief financial officer, and other personnel specified in the company's articles of association [8], and the vertical dyad differences of the chairman-senior management team is measured from three aspects: age, tenure, professional experience [8]. Among them, professional experience is divided into 10 categories according to the classification standard of CSMAR database, including production, research and development, design, human resources, management, market, finance, finance, law, and others. If the chairman or senior executive has a certain kind of professional experience, the value is 1; otherwise,

it is 0, and its summation value is used to measure the degree of professional experience. If the age of the chairman is greater than the average age of the senior management team, the vertical dyad differences of age between the chairman and the senior management team (DIFA) takes a value of 1, otherwise it takes a value of 0; if the chairman's tenure is greater than the average tenure of the senior management team, the vertical dyad differences of tenure between the chairman and the senior management team (DIFT) takes the value of 1, otherwise the value is 0; if the chairman's professional experience is richer than the average of the senior management team, the vertical dyad differences of professional experience between the chairman and the senior management team (DIFF) takes the value of 1, otherwise the value is 0.

3.1.2 Explained Variable

The explained variable is risk-taking, which is measured by earnings volatility. The company's return on total assets (Roa) in each year is subsumed by the industry's average return on total assets (Roa) to obtain the adjusted corporate return on Total assets (Adj_Roa). The formula (1) and formula (2) are respectively used to calculate the standard deviation and the difference between the maximum and minimum value of Adj_Roa in a three-year cycle ($T - 1$ to $T + 1$). Referring to the methods of previous research, the risk-taking level is multiplied by 100 during regression, so that the dimension can be changed without affecting its significance [5]. The formula (2) method is used for robustness test. Words like "is", "or", "then", etc. should not be capitalized unless it is the first word of the subsection title.

$$\text{Risk1}_{i,t} = \sqrt{\frac{1}{T-1} \sum_{t=1}^T \left(\text{Adj_Roa}_{i,t} - \frac{1}{T} \sum_{t=1}^T \text{Adj_Roa}_{i,t} \right)^2} \quad (1)$$

$$\text{Risk2}_{i,t} = \text{Max}(\text{Adj_Roa}_{i,t}) - \text{Min}(\text{Adj_Roa}_{i,t}) \quad (2)$$

3.1.3 Moderating Variable

The moderating variable is equity incentive (Hold), which is measured by the shareholding ratio of executives with reference to most previous research practices.

3.1.4 Control Variables

Considering the impact of other variables on the level of enterprise risk taking, this paper selects board size (Board), enterprise size (Size), enterprise age (Age), asset-liability ratio (Lev), operating income growth rate (Growth), and equity concentration (Top1) as the control variable. At the same time, the effects of industry and year variables are controlled for.

3.2 Research Model

In order to examine the influence of vertical dyad difference of age (DIFA), tenure (DIFT), professional experience (DIFF) on the level of enterprise risk-taking, verify

H1a to H1c, and establish models (3) to (5).

$$\text{Risk}_{i,t} = \beta_0 + \beta_1 \text{DIFA}_{i,t} + \beta_2 \text{Controls}_{i,t} + \varepsilon_{i,t} \quad (3)$$

$$\text{Risk}_{i,t} = \beta_0 + \beta_1 \text{DIFT}_{i,t} + \beta_2 \text{Controls}_{i,t} + \varepsilon_{i,t} \quad (4)$$

$$\text{Risk}_{i,t} = \beta_0 + \beta_1 \text{DIFF}_{i,t} + \beta_2 \text{Controls}_{i,t} + \varepsilon_{i,t} \quad (5)$$

In order to test the influence of equity incentive (Hold) on the relationship of vertical dyad differences between the chairman and the senior management team and the level of enterprise risk-taking, to verify H2a to H2b, the equity incentive variables, the interaction term between equity incentive and vertical dyad differences are introduced into the model. Building models (6) to (8).

$$\begin{aligned} \text{Risk}_{i,t} = & \beta_0 + \beta_1 \text{DIFA}_{i,t} + \beta_2 \text{Hold}_{i,t} + \beta_3 \text{DIFA}_{i,t} * \text{Hold}_{i,t} \\ & + \beta_4 \text{Controls}_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (6)$$

$$\begin{aligned} \text{Risk}_{i,t} = & \beta_0 + \beta_1 \text{DIFT}_{i,t} + \beta_2 \text{Hold}_{i,t} + \beta_3 \text{DIFT}_{i,t} * \text{Hold}_{i,t} \\ & + \beta_4 \text{Controls}_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (7)$$

$$\begin{aligned} \text{Risk}_{i,t} = & \beta_0 + \beta_1 \text{DIFF}_{i,t} + \beta_2 \text{Hold}_{i,t} + \beta_3 \text{DIFF}_{i,t} * \text{Hold}_{i,t} \\ & + \beta_4 \text{Controls}_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (8)$$

3.3 Sample Selection and Data Sources

This paper selects Chinese 2010–2019 Shanghai and Shenzhen A-share listed companies as the initial research samples, considering the needs of the indicator rolling period, the risk-taking index is measured based on the 2009–2020 data, and excludes the financial industry, ST and *ST company samples and a sample of companies with missing values. The data mainly comes from the CSMAR database, in which the missing values of the chairman's education and professional experience were supplemented by manual query on Sina Finance. Finally, 19844 samples of 3067 companies were obtained. In order to reduce the deviation caused by extreme values to the test results. Winsorizing all the continuous variables by upper and lower 1%, and STATA 16.0 was used for data processing.

4 Empirical Test

4.1 Descriptive Statistics

The variable descriptive statistics are shown in Table 1. It can be seen from Table 1 that the maximum value of Risk1 is 0.27, the minimum value is 0, and the mean value is 0.03. Compared with the minimum value and the average value of Risk1, the difference between the maximum value and the average value is large, indicating that there is a large difference in the level of risk taking among enterprises. The median of the DIFA is

Table 1. Descriptive statistics of variables.

Variable	Mean	Median	Max	Min	Standard Deviation
Risk1	0.030	0.016	0.27	0.00	0.030
DIFA	0.820	1	1	0	0.390
DIFT	0.640	1	1	0	0.480
DIFF	0.310	0	1	0	0.460
Hold	0.073	0	0.610	0	0.139

1, and the mean is 0.82, indicating that the age of the chairman of most listed companies is greater than the average age of the senior management team. The median of the DIFT of is 1 and the mean is 0.64, indicating that the tenure of the chairman of most listed companies is also longer than the average tenure of the senior management team. The median of the DIFF of is 0, and the mean value is 0.31, indicating that in terms of professional experience, the chairman's professional experience is mostly richer than the average professional experience of the senior management team, but the difference is relatively smaller. The minimum value of the Hold is 0, and the maximum value is 0.61, indicating that the difference in the shareholding ratio of executives of the sample companies is large, and the median of Hold is 0 and the mean value is 0.073, indicating that the average level of equity incentive in the sample companies is low.

4.2 Correlation Analysis

In this paper, the Pearson coefficient is used to analyze the correlation of main variables, as shown in Table 2. From Table 2, it can be seen that the DIFA and the DIFT are significantly negatively correlated with the Risk1. There is a significant positive correlation between the DIFF and Risk1, indicating the vertical dyad differences of age, tenure, and professional experience between the chairman and the senior management team may have an impact on the level of enterprise risk-taking. Correlation analysis ignores the influence of other variables and cannot accurately reflect the relationship between variables, so regression analysis is carried out for further verification.

4.3 Regression Analysis

4.3.1 The Vertical Dyad Differences and Enterprise Risk-Taking

Models (1) to (3) are used to test the relationship between vertical dyad differences and the level of enterprise risk-taking. The regression results are shown in Table 3. All regressions were corrected for heteroskedasticity by White. From the columns (1) and (2), it can be seen that the DIFA, DIFT and the Risk are negatively correlated at a significant level of 1%, indicating that the greater the vertical dyad differences of age and tenure, the lower the risk-taking level of the enterprise, and H1a and H1b are verified. As can be seen from column (3), the DIFF is positively correlated with the Risk at the significance level of 1%. H1c has been verified, indicating that the greater the vertical dyad difference of professional experience, the higher the enterprise risk-taking level.

Table 2. Correlation analysis of main variables.

Variable	Risk1	DIFA	DIFT	DIFF	Hold
Risk1	1				
DIFA	-0.032***	1			
DIFT	-0.028***	0.245***	1		
DIFF	0.064***	-0.059***	-0.041***	1	
DIFD	0.004	-0.077***	-0.056***	0.022***	
Hold	0.011	0.070***	0.194***	0.040***	1

Note: t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 3. Vertical dyad differences and risk-taking.

Variable	(1)	(2)	(3)
DIFA	-0.219*** (-3.57)		
DIFT		-0.280*** (-5.72)	
DIFF			0.316*** (6.18)
Constant	18.229*** (31.58)	18.378*** (31.78)	17.954*** (31.16)
Controls	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
N	19844	19844	19844
Adj_R ²	0.113	0.114	0.114
F	53.377	53.421	53.404

4.3.2 The Moderating Effect of Equity Incentive

Models (4) to (6) are used to test the moderating effect of equity incentive, and the regression results are shown in Table 4. From the columns (1) to (3) in Table 4, it can be seen that the regression coefficient of the DIFA*Hold is 1.172, the regression coefficient of the DIFT*Hold is 1.308, and both are significant at the 1% level. The regression coefficient of the DIFF*Hold is 0.787, and it is at the 10% level. The above is significant, indicating that equity incentive have a significant positive moderating effect on the relationship between the vertical dyad differences and the level of corporate risk-taking. In other words, equity incentive weakens the negative impact of vertical dyad differences of age and tenure on the level of enterprise risk-taking, and strengthens the positive effect of vertical dyad difference of professional experience on enterprise

Table 4. The moderating effect.

Variable	(1)	(2)	(3)
DIFA	-0.190*** (-3.11)		
DIFA*Hold	1.172*** (2.88)		
DIFT		-0.225*** (-4.52)	
DIFT*Hold		1.308*** (3.36)	
DIFF			0.313*** (6.11)
DIFF*Hold			0.787** (2.46)
Hold	-1.818*** (-4.76)	-1.781*** (-4.86)	-1.115*** (-6.02)
Controls	Yes	Yes	Yes
Constant	18.725*** (31.58)	18.856*** (31.74)	18.465*** (31.20)
N	19844	19844	19844
Adj_R ²	0.114	0.115	0.115
F	50.848	50.869	50.865

risk-taking. So, hypothesis H2a and H2b is validated, equity incentive for the senior management team can improve the level of risk-taking by adjusting the relationship between the vertical dyad differences of age, tenure, professional experience and risk-taking. To a certain extent, it supports the hypothesis of risk-taking effect of equity incentive.

4.4 Robustness Test

In order to make the regression results more reliable, this paper replaces the enterprise risk-taking variable, and uses the difference between the maximum and minimum value of the adjusted return on assets (Adj_Roa) during the observation period to measure the enterprise's risk-taking level (Risk2) for regression. The regression coefficients vary in size, but the positive and negative regression coefficients and the significance level have not changed significantly, indicating that the regression results have not undergone substantial changes, which proves the reliability of the research conclusions. Due to space limitations, regression results are not shown.

5 Conclusions

Based on the background of Information Age, this paper studies the impact of the vertical dyad differences between the chairman and the senior management team on four aspects of age, tenure, and professional experience on enterprise risk-taking, and examines the moderating effect of equity incentive on the relationship. The study found that: The internal interaction of the senior management team due to similar attraction and following social norms makes the vertical dyad differences affect the risk-taking of the enterprise. The vertical dyad differences of age and tenure will reduce the enterprise's risk-taking, while the vertical dyad difference of professional experience will increase the enterprise's risk-taking. Equity incentive has a benefit convergence effect, which can effectively adjust the impact of the vertical dyad differences of chairman-senior management team on the enterprise's risk-taking. When the vertical dyad differences of age and tenure decrease the risk-taking, equity incentive can weaken the negative effect. When the professional experience increases the enterprise's risk-taking, the equity incentive can further enhance the positive effect and has a significant risk-taking effect.

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