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Do Alumni Networks Influence Corporate Risk-Taking? Evidence from Listed Companies in China

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ABSTRACT

This study investigates the correlation between alumni relationships linking the chairman and chief operating officer (CEO) and corporate risk-taking among Chinese A-share listed companies from 2012 to 2022. Using data collected manually on higher educational backgrounds, we find that firms where the chairman and CEO share an alumni connection tend to exhibit significantly higher levels of corporate risk-taking. Further analysis suggests that this association may operate through improved accounting information transparency and reduced executive opportunistic behaviors, indicating that social ties can enhance information flow and coordination within top management teams. Moreover, heterogeneity analysis shows that the positive effect of alumni ties on corporate risk-taking is more evident in private enterprises, companies with stronger internal control quality, and those led by CEOs without overseas experience. This study enriches research on social relationships and corporate governance by highlighting how informal relationships among top executives shape corporate decision-making and risk-taking behavior in China.

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INTRODUCTION

In the last few decades, research in corporate finance has extensively examined how the traits of the chief operating officer (CEO) and boards shape corporate risk-taking activities from two distinct perspectives. One stream of literature predicts that CEOs' personal demographic characteristics and psychological characteristics exert significant influence on firm risk-taking (Baghdadi et al., 2022; Bolourian et al., 2021; Martino et al., 2020; Peltomäki et al., 2021). Another strand of research stresses that board characteristics also impact firms' risk-taking (Croci et al., 2024; Endrikat et al., 2021; Su et al., 2019). However, the potential influence of social relationships between the board and CEO on corporate risk-taking has received limited attention in corporate finance literature.

As a key component of social capital, social networks manifest in various forms, and those stemming from a shared educational background represent a potential influence on the decision-making process. Drawing on agency theory (Jensen and Meckling, 1976), the relationship between agents and the principals they serve is subject to conflicts of interest. Given that managers often possess superior information and may have risk preferences that diverge from those of shareholders, they may engage in actions that do not align with the shareholders' interests, such as risk aversion or excessive risk-taking. In this context, close ties between the board and management could strengthen trust and communication, thereby alleviating agency conflicts. Upper echelons theory proposes that an enterprise's strategic decisions and organizational effectiveness are profoundly shaped by the personality attributes, cognitive foundations, and the values of the top management team. These characteristics are often measured using demographic variables such as educational background, age, and functional experience (Hambrick and Mason, 1984). If senior managers and the board of directors share an alumni relationship, their common educational background may facilitate the development of similar cognitive frameworks and value systems (Xu et al., 2021). This shared cognitive foundation can, in turn, shape the firm's risk-taking preferences. Alumni connections may strengthen trust and foster collaborative dynamics among board members, thereby raising the likelihood of unified decisions and the willingness to adopt bold risk-taking strategies.

In China, since the rapid expansion of higher education from 1999, alumni relationships have increasingly become significant in both professional and personal interactions. Such relationships often show a stronger sense of emotional cohesion and shared identity than many other social ties, as they reflect common cultural values and accumulated social capital (Drezner and Pizmony-Levy, 2021). Alumni relationships stemming from the university represent close social bonds. These ties not only help build mutual trust but also serve as important channels for exchanging private information (Sun et al., 2023). Individuals with the same alumni background tend to think and act in similar ways, which may, in turn, influence the collective decision-making. Additionally, the values formed through college education exert a lasting influence even after graduation, continuing to guide the decision-making process (Chen et al., 2025). Against this backdrop, this study combines agency theory and upper echelons theory to examine whether and how college-based alumni relationships between the chairman and CEO influence corporate risk-taking in Chinese listed firms.

Using a sample of Chinese A-share listed companies from 2012 to 2022, we manually compile university alumni data for the chairman and CEO to analyze their impact on firm risk-taking. Our findings reveal that alumni ties significantly enhance firms' risk-taking propensity. These findings remain robust after employing propensity score matching (PSM) and the Heckman two-stage method. Subgroup analyses reveal that the positive association is most pronounced among firms with strong internal controls, private enterprises, and companies led by CEOs without overseas experience.

Overall, this study makes several important contributions. First, it advances the existing literature in social relationships and corporate risk-taking by focusing on shared university alumni ties between the chairman and CEO. Unlike prior studies that examine either CEO characteristics or board traits in isolation, this research highlights how interpersonal relationships within top management shape firms' strategic behavior. Second, by combining agency theory and upper echelons theory, this study enriches our understanding of how social relationships between top executives influence corporate governance and risk-taking. More specifically, we demonstrate that alumni relationships can enhance trust and information transparency, mitigate opportunistic behavior, and strengthen communication between the board and management, ultimately enhancing corporate risk-taking.

REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

Based on upper echelons theory, alumni relationships provide executives with channels to access information and resources. CEOs and board members can obtain privileged information through their interpersonal interactions, which in turn facilitates decision-making. This informational advantage reduces managerial risk aversion in making a strategic decision by mitigating ex ante uncertainty about risky investments, leading to efficient and high-quality innovation and risk-taking (Skorodziyevskiy et al., 2024), and potentially making CEOs more willing to undertake risky financial investments (Dbouk et al., 2020). At the same time, the sense of identity and trust among alumni can enhance a firm risk tolerance. Indeed, it has been argued that risk-sharing promotes risk-taking (Mount and Baer, 2022). If the directors and CEO have alumni relationships, trust between them will be strengthened, and the board of directors will give more tolerance and support to the CEO in the face of investment uncertainty (Peltomäki et al., 2021).

Social relationships can enhance cooperation between the board and management, increasing the frequency of advice-seeking and information sharing (Xu and Xu, 2024). Board members' alumni connections with the CEO are associated with heightened director involvement in corporate strategic decision-making, thereby positively impacting firm value. The profound sense of belonging and collective understanding among alumni signifies their identification with the shared campus culture (Drezner and Pizmony-Levy, 2021). Even when alumni attended the same university at different times, their shared memories typically generate a strong sense of intimacy and trust. The common educational background promotes their mutual social identity, facilitating smoother and more effective communication (Liang et al., 2022). Furthermore, strengthening effective communication and cooperation between the chairman and CEO can enhance corporate information transparency and reduce information asymmetry. This, in turn, is *e*xpected to augment the enterprise's innovation and resource-integration capabilities, improve financial performance, and increase its risk-taking capacity. Since assuming risks demands extensive communication and coordination between board members and senior management, the information advantage can strengthen managers' confidence and influence their investment styles (Rossi et al., 2018).

Alumni build trust based on each other's reputations and exchange information within the network. For CEO, to build a positive reputation, they are more likely to reduce self-seeking tendencies and avoid engaging in unethical activities as they need to reduce the risk of reputation damage within the alumni networks. As Wang et al. (2023) pointed out, the reputation mechanism behind this social relationship exerts significant deterrent and punitive effects on CEOs' opportunistic behavior. If a CEO betrays the trust of the chairman for personal gain, the negative reputation resulting from such unethical behavior is likely to spread rapidly within the alumni networks. Eventually, this will erode the CEO's credibility within the alumni networks (Shen et al., 2022). When the potential costs of punishment are high, CEOs tend to restrain their self-interested behaviors. Furthermore, from an empirical perspective, a reduction in self-serving behavior among corporate executives correlates with lower agency costs, which in turn promotes operational efficiency and enhances organizational long-term stability (Zhang et al., 2024). This dynamic also strengthens the firm's capacity for strategic risk-taking.

H1: Firms with alumni relationships between the chairman and CEO will enhance corporate risk-taking.

Information transparency plays a central role in shaping strategic decision-making and risk-taking (Huangfu et al., 2025). Based on agency theory (Jensen and Meckling, 1976), information asymmetry between managers and shareholders often leads to moral hazard and risk-averse behavior among managers, as they may sacrifice corporate value to protect personal interests. Alumni relationships, as a form of social capital, can help ease this tension. They tend to build mutual trust, shared norms, and more open communication. With fewer misunderstandings and less hidden information, the board and CEO can grasp and interpret key information more effectively. Better information flow enables the board and CEO to access and interpret information efficiently. This boosts confidence, improves decision quality, and reduces information uncertainty (Li et al., 2023). Consequently, firms with greater information flow and more effective communication among executives are more willing to engage in strategic risk-taking and long-term investment.

H2: Firms with alumni relationships between the chairman and CEO will enhance corporate risk-taking by improving information transparency.

From the perspective of agency theory, corporate managers have access to firm-specific information that external stakeholders can hardly obtain. This informational asymmetry provides both the incentive and the opportunity to engage in actions that serve their self-interest instead of shareholders' interests. Perk consumption involves using company assets to gain personal comfort or status. Such behavior demonstrates managerial opportunism that not only drains resources from productive investment but also makes managers more hesitant to take on projects that could create value but involve higher risks. Recent evidence from Chinese listed companies shows that excessive perks distort investment efficiency and increase firm risk exposure (Hu and Li, 2024). Social trust and relational governance have been found to constrain such opportunistic tendencies by increasing moral accountability and reputational costs (Zuo et al., 2022).

In this context, alumni ties between the chairman and CEO serve as an informal governance mechanism that can mitigate managerial opportunism. Shared educational experiences foster interpersonal trust and reputational discipline, which reduces the incentive for executives to engage in excessive perk consumption. Consequently, fewer private benefits release internal resources for risk-taking and strategic innovation.

H3: Firms with alumni relationships between the chairman and CEO will enhance corporate risk-taking by reducing managerial opportunism.

RESEARCH METHODOLOGY

Sample Selection

A-share listed companies on the Shanghai Stock Exchange (SHSE) and Shenzhen Stock Exchange (SZSE) from 2012 to 2022 are used as our sample. The data are mainly obtained from the China Stock Market & Accounting Research Database (CSMAR), except for the information on the graduating universities of the chairman and CEO, which is manually collected through the Internet. This study focuses on A-share listed firms because they offer standardized, reliable, and publicly available data, and are broadly representative of China's major enterprises in terms of ownership structure, industry distribution, and geographic coverage. However, since the China Securities Regulatory Commission (CSRC) does not mandate the disclosure of executives' and directors' educational backgrounds, certain challenges arise in collecting the relevant data. The lack of a mandatory disclosure requirement increases the complexity and uncertainty of data collection, making it difficult to obtain a complete picture of executives' educational backgrounds. To address this limitation, we supplement and cross-verify the information through public company reports and news interviews to ensure the completeness and accuracy of the dataset.

Following the methodological approaches of Fu et al. (2022) and Xu et al. (2021), the specific screening criteria are as follows: (1) firms with overlapping chairman and CEO roles during the study period are excluded; (2) firms undergoing change of CEO in the year are excluded; (3) firms classified as the special types ST and *ST are excluded; (4) *f*irms in the financial industry are excluded due to their adherence to accounting standards that significantly differ from non-financial sectors; (5) firms with missing observations are excluded; (6) considering that many universities in China have experienced name changes or mergers due to historical reasons, this study replaces all the graduating schools of the chairman and CEO with the current names of universities.

Model Settings

To verify the impact of the chairman-CEO alumni relationship on corporate risk-taking, the model is presented below:

$$Risk_{it}=\beta_0+\beta_1 Alumni_{it}+\beta_2 Controls_{it}+Industry_i+Year_t+\epsilon_{it} \quad (1)$$

In this model, *i* and *t* is the company and year, respectively. *Risk* represents corporate risk-taking, while *Alumni* is the independent variable, denoting whether an alumni relationship exists between the chairman and CEO. *Controls* refers to a set of control variables, *Industry* denotes industry fixed effects, with *Year* representing year fixed effects, and ϵ_{it} is the error term.

Variable Description

Corporate Risk Taking

Corporate risk-taking is the dependent variable in this research. Following the existing literature (Cao et al., 2023; Setianto et al., 2025; Tang et al., 2024), we measure corporate risk-taking using the standard deviation of firms' return on assets (ROA), defined as the ratio of earnings before interest and taxes (EBIT) to total assets at the end of each fiscal year. Increased ROA volatility suggests a stronger inclination toward risk-taking. To mitigate the potential influence of industry characteristics and business cycles, we adjust firm-level ROA by deducting the corresponding annual industry mean, thus obtaining an industry-adjusted ROA (ADJ_ROA), as specified in Model (2). Subsequently, we compute the standard deviation of ADJ_ROA over a rolling three-year window (from year *t* to *t + 2*), as shown in Model (3). The resulting variable, Risk, serves as the proxy for corporate risk-taking in our empirical analysis.

$$ADJROA_{i,t} = ROA_{i,t} - \frac{1}{n}\sum_{t=1}^{n} ROA_{i,t} \tag{2}$$

$$\text{Risk}_{i,t} = \sqrt{\frac{1}{T-1}\sum_{t=1}^{T}(ADJROA_{i,t} - \frac{1}{T}\sum_{t=1}^{T} ADJROA_{i,t})^2}, T = 3 \tag{3}$$

Alumni Relationships

The explanatory variable is alumni relationships. In this study, the chairman and CEO are considered representatives of the top executives of the company, and a dummy variable, alumni, is constructed to capture the alumni relationships between them. Specifically, if the chairman and CEO in the sample listed companies attended the same university at any stage of their education (undergraduate, master's, or doctoral), it is considered that an alumni relationship exists. The variable is coded 1 if this condition is met; otherwise, it is coded 0 (Guan et al., 2016).

Accounting Information Transparency and Executive Opportunistic Behavior

Regarding the measurement of accounting information opacity (Opaque), we follow the studies by Hutton et al. (2009). The modified Jones model is adopted to measure the transparency of corporate accounting information. The specific model and calculation formula are presented in Equation (4):

$$\frac{TA_t}{A_{t-1}} = \alpha_1 * \frac{1}{A_{t-1}} + \alpha_2 * \frac{(\Delta REV_t + \Delta REC_t)}{A_{t-1}} + \alpha_3 * \frac{PPE_t}{A_{t-1}} + \varepsilon_t \tag{4}$$

In model (4), TA_t stands for the total accruals of the firm in year t， calculated as net profit minus cash flows from operating activities for year t； $A_{t\text{-}1}$ denotes the total assets of the firm at the end of year t-1； ΔREV_t is the difference in operating revenue between year t and t-1, while ΔREC_t represents the change in net accounts receivable over the same period. PPE_t refers to the net value of fixed assets for the firm in year t. The residual term ε_t captures the difference between the firm's actual earnings and the earnings predicted by the model, which is employed to gauge the discretionary accruals (DA) as a measure of accounting information quality.

Perks refer to financial or non-financial rewards that fall outside the realm of traditional remuneration components such as salary, bonus, or equity-based incentives. Excess executive perk consumption (*Experk*) is defined as the proportion of perks that exceed normal consumption levels. It serves as a measure of management opportunism and self-interest (Wu et al., 2024).

According to the measurement of Luo et al. (2011), the calculation is shown in Equation (5). In the formula, $Experk_{i,t}$ denotes the amount of administrative expenses after deducting expenses clearly unrelated to in-service consumption, such as salaries for board members, supervisors, and executives. $Asset_{i,t\text{-}1}$ represents

the total assets at the end of the previous year, $\Delta Sale_{i,t}$ is the change in main operating revenue for the current year. $PPE_{i,t}$ refers to the net value of fixed assets at the end of the current year, while $INV_{i,t}$ is the total inventory at the end of the current year, and $LnEMPLOYEE_{i,t}$ is the natural logarithm of the total number of employees employed by the firm in the current year.

The residual of the regression model represents the difference between expected and actual executive perk consumption, defined as excess executive perks (*Experk*). A higher *Experk* value indicates greater managerial opportunism and a higher degree of self-serving behavior.

$$Experk_{i,t}=\beta_0+\beta_1*1/Asset_{i,t-1}+\beta_2*\Delta Sale_{i,t}/Asset_{i,t-1}+\beta_3*PPE_{i,t}/Asset_{i,t-1}+\beta_4*INV_{i,t}/Asset_{i,t-1}+\beta_5*LnEMPLOYEE_{i,t}+\sum Industry_{i,t}+\sum Year_{i,t}+\varepsilon_{i,t} \quad (5)$$

Control variables

Regarding the selection of control variables in this study, we follow Cao et al. (2023) and Wu et al. (2022). The control variables include firm size (Size), leverage (Lev), ROE, Tobin's Q value, listing age (ListAge), the shareholding ratio of the largest shareholder (Top1), the degree of equity balance (Balance1), and whether the company is audited by the Big Four international accounting firms (Big4).

RESULTS AND DISCUSSION

Descriptive Statistics

After removing missing values, a total of 5972 observations were retained. As shown in Table 1, the proportion of firms where the chairman and CEO have an alumni relationship remains below 10%. Firms' risk-taking levels vary considerably across observations, ranging from 0.1 (min) to 31.09 (max), with an overall standard deviation of 3.14. The statistical details for other variables are likewise presented in Table 1. Additionally, the Variance Inflation Factor (VIF) values all fall well below the threshold of 5, with an average of 1.55, indicating no significant multicollinearity concerns among the variables.

Table 1 Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Alumni	5972	0.073	0.261	0	1
Risk	5972	3.145	3.195	0.1	31.094
Size	5972	22.707	1.361	19.585	26.43
Lev	5972	0.459	0.199	0.052	0.925
ROE	5972	0.064	0.124	-0.962	0.414
TobinQ	5972	1.976	1.326	0.802	16.647
ListAge	5972	2.546	0.536	1.609	3.401
Top1	5972	0.346	0.15	0.081	0.758
Balance1	5972	0.335	0.287	0.006	1
Big4	5972	0.09	0.286	0	1
Opaque	5972	0.159	0.115	0.001	1.007
Experk	5972	0.038	0.029	-0.002	0.252

Baseline Regression Results

To empirically test Hypothesis 1, which postulates that firms with an alumni connection between the chairman and CEO exhibit greater risk-taking levels, Model (1) is applied, with outcomes shown in Table 2. Both columns in Table 2 incorporate industry and year two-way fixed effects as delineated in Model (1). In Column (1), which does not include control variables, the chairman-CEO alumni relationship is significantly related to higher corporate risk-taking, achieving statistical significance at the 1% threshold. In Column (2), following the inclusion of control variables, the positive effect experiences a slight attenuation but remains statistically significant at the 1% threshold. These empirical outcomes lend support to Hypothesis 1, suggesting that an alumni tie between the chairman and CEO has a positive impact on corporate risk-taking.

Table 2 Baseline regression results

	(1)	(2)
VARIABLES	Risk	Risk
Alumni	0.604***	0.334***
	(4.90)	(2.85)
Size		-0.261***
		(-6.35)
Lev		0.339
		(1.23)
TobinQ		0.367***
		(7.88)
ListAge		-0.013
		(-0.18)
Top1		-1.989***
		(-5.37)
Balance1		-0.324*
		(-1.81)
Big4		0.236**
		(2.17)
ROE		7.913***
		(12.04)
Constant	3.192***	9.528***
	(75.81)	(10.99)
Industry	Yes	Yes
Year	Yes	Yes
Observations	5,972	5,972
Adjusted R-squared	0.399	0.542

Note: Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1(The same is true for the table below).

Mechanism Analysis

Table 3 shows the outcomes of the mechanism tests, demonstrating the chairman-CEO alumni tie significantly boosts accounting information transparency and mitigates excessive perquisite consumption by senior managers. Quantitatively, the former effect is significant at the 1% level, and the latter at the 5% level. The empirical results validate Hypotheses 2 and 3.

Table 3 Mechanism analysis

	(1)	**(2)**
VARIABLES	Opaque	Experk
Alumni	0.012**	-0.004***
	(1.88)	(-3.35)
Controls	Yes	Yes
Industry	Yes	Yes
Year	Yes	Yes
Constant	0.393***	-0.123***
	(11.92)	(-18.6)
Observations	5,972	5,972
Adjusted R-squared	0.556	0.321

Note: Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Robustness Check

To verify the reliability of the empirical findings, this study employs alternative measurements for corporate risk-taking by adjusting both the observation window and the measurement approach. Specifically, the standard deviation of ROA, originally computed over a three-year rolling period, is extended to a five-year rolling window to construct Risk 2. In addition, the difference between the maximum and minimum ROA reported over a 3-year interval is used as Risk 3 (Feng and Yu, 2025; Wei et al., 2025). As reported in columns (1) and (2) of Table 4, the outcomes remain consistent with the baseline analysis. The positive effect of alumni connections between the chairman and CEO on firms' risk-taking continues to hold, confirming the robustness and reliability of the main results.

Table 4 Alternative measurement for risk

	(1)	(2)
VARIABLES	Risk2	Risk3
Alumni	0.286**	0.529**
	(2.26)	(2.25)
Controls	Yes	Yes
Industry	Yes	Yes
Year	Yes	Yes
Constant	8.217***	15.366***
	(8.43)	(8.47)
Observations	5,972	5,972
Adjusted R-squared	0.535	0.536

Note: Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1.

To mitigate endogeneity risks due to selection bias and reverse causality, the Heckman two-step procedure and Propensity Score Matching (PSM) are also employed. Following Certo et al. (2016) for the Heckman two-stage test, corporate risk-taking (Risk) is measured by referencing the sample median. Specifically, values greater than the median are assigned 1, and values at or below the median receive 0. The Inverse Mills Ratio (IMR) estimated in the first-stage Probit regression is integrated into the second-stage model for parameter estimation. As reported in Table 5, the significance of the IMR coefficient indicates the existence of self-selection bias. However, following the inclusion of the IMR term, the alumni relationship's positive impact on Risk remains statistically significant, suggesting the baseline findings are robust to endogeneity corrections.

For the PSM, we follow the method of Abadie and Imbens (2016) and adopt the kernel matching method, taking the control variables in the baseline regression as covariates. After matching, most covariates show a bias within 10%, demonstrating the robustness of the matching results. The ATT value after matching is 3.63, which exceeds 2.58, indicating that the average treatment effect is significant at the 1% threshold. Thus, the PSM test results, shown in Table 5, confirm that the positive coefficient of alumni on risk-taking persists, providing further support for the baseline findings.

Table 5: Robustness check

	First stage	Second stage	PSM
VARIABLES	Risk	Risk	Risk
Alumni	0.027***	0.097***	0.355***
	(3.52)	(4.67)	(3.12)
IMR		1.576	
		(1.41)	
Controls	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Constant	5.799***	13.602***	-9.965***
	(17.98)	(4.29)	(-11.84)
Observations	5,972	5,972	5957
Adjusted R-squared	N/A	0.582	0.595

Note: Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Heterogeneity Analysis

As previously mentioned, alumni relationships between the chairman and CEO foster closer and more harmonious ties, which may lead to greater collusive behavior (Xu et al., 2021). Such behavior could negatively affect corporate governance and corporate risk-taking. The level of a company's internal controls reflects the effectiveness of its control mechanisms across business processes, governance structures, risk management, and financial-monitoring practices (Doyle et al., 2007). Companies with higher internal control quality often maintain more complete governance structures and more efficient board supervision (Chalmers et al., 2019). These improvements can make it harder for collusive schemes between the chairman and CEO to succeed, thereby reducing the likelihood of opportunistic behaviors. In firms with high internal control quality, the alumni relationship between the chairman and CEO can facilitate smoother communication and enhance the effectiveness and efficiency of resource integration (Bolourian et al., 2021). This, in turn, can improve overall corporate performance and the firm's capacity for risk-taking. Hence, we hypothesize a stronger positive link between chairman-CEO alumni relationships and risk-taking in firms with better internal control quality.

Consistent with the measurement adopted by Yan et al. (2024), this study utilizes the internal control quality index (IC) created by Dibo to assess the companies' internal control performance. The IC is built on five objectives: internal control compliance, reporting, asset safeguarding, operational efficiency, and strategic consistency. Firms with an IC value above the sample mean are classified into the High IC group, while those below the mean are assigned to the Low IC group. As demonstrated in Table 6, the results confirm that the alumni ties between the chairman and CEO have a more substantial positive influence on the firm's risk-taking capacity in firms with superior internal control quality.

In China's contemporary social and economic environment, state-owned enterprises (SOEs) and private enterprises differ greatly in management practices and organizational governance. The nature of ownership directly influences day-to-day operations and major strategic decision-making processes. SOEs often face stricter regulations (Huang et al., 2024), which increases the risk of CEOs' opportunistic behaviors.

In contrast, in private enterprises, profits belong to private shareholders. The social relationships among senior executives are relatively less sensitive, and such networks can bring more resource-based advantages to the enterprises. Prior research indicates that the survival and growth of private firms largely rely on relationship-based informal financing channels rather than formal financial institutions (Liu et al., 2018). Alumni relationships foster trust, communication, and collaboration and their effects tend to be more pronounced in private enterprises. Therefore, this study proposes that when the chairman and CEO share an alumni connection, this significantly enhances private companies' willingness to take on greater risks.

To validate this hypothesis, a binary variable (SOE) is constructed, coded as 1 for state-owned enterprises and 0 for private enterprises. Regression analysis is conducted separately for each subgroup. The findings in Table 6 suggest that the beneficial effect of the chairman-CEO alumni relationships on corporate risk-taking is more pronounced in private enterprises.

Upper echelons theory states that the personal characteristics, habitual thinking, and values of top executives play a crucial role in shaping strategic decisions and operational outcomes. To further clarify how the alumni relationship between the chairman and CEO affects corporate risk-taking, this study also examines whether the CEOs' overseas experience alters this effect. The hypothesis is that if the CEO has studied abroad, this experience may weaken the positive effect of the alumni connection on the company's risk-taking behavior.

The experience of studying abroad exposes CEOs to the individualistic ideology prevalent in foreign countries, leading them to place greater emphasis on personal ability and independence (Liang et al., 2024) and less on interpersonal relationships. This individualistic mindset makes them more likely to rely on their specialized expertise, advanced skills, and personal judgment in managerial decision-making (Yuan and Wen, 2018) rather than on social ties such as alumni relationships with the chairman. In contrast, CEOs with only domestic education may place a greater emphasis on interpersonal relationships and social networks. As a result, their alumni relationships with the chairman may be more profound. These ties not only foster emotional connection (Liu et al., 2024) but also provide trust and support in routine operations, thus enhancing corporate risk-taking capacity. Guided by this logic, CEOs are categorized into two groups. If the CEO has overseas study experience, the variable is coded as 1, and 0 otherwise. Table 6 illustrates that the positive association of chairman-CEO alumni connections on corporate risk-taking is more evident in firms led by the CEO without overseas experience.

Table 6 Heterogeneity analysis

	High IC	**Low IC**	**SOE**	**Non-SOE**	**CEO oversea**	**CEO non-oversea**
Variables	Risk	Risk	Risk	Risk	Risk	Risk
Alumni	0.322**	0.237	0.170	0.492***	1.509	0.249**
	(2.57)	(0.72)	(1.26)	(2.6)	(0.64)	(1.98)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes
Constant	9.467***	4.047**	7.838***	11.064***	9.414**	9.530***
	(9.73)	(1.99)	(8.07)	(6.2)	(2.46)	(10.44)
Observations	5,065	907	3,126	2,846	443	5,529
Adjusted R-squared	0.543	0.568	0.543	0.534	0.520	0.538

Note: Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1.

CONCLUSION

This study provides empirical evidence that alumni relationships between the chairman and CEO notably enhance corporate risk-taking in Chinese listed firms. The mechanism analysis further demonstrates that this effect operates primarily through improved accounting information transparency and the reduction of executives' opportunistic behavior. The heterogeneity analysis also reveals the promoting effect of the alumni relationships between the chairman and CEO on corporate risk-taking is more pronounced in enterprises with high-quality internal control, in private enterprises, and in those where the CEO has no overseas experience. These findings align with prior research suggesting that social ties among top executives can facilitate information flow and strengthen trust, thereby encouraging risk-taking behaviors.

The results contribute to the literature by integrating upper echelons theory and agency theory to explain how social bonds among executives influence strategic decision-making. Within institutional economics, social capital embedded in networks, such as alumni ties, functions as an informal institution. It encourages trust and cooperation among economic actors and helps reduce transaction and coordination costs. By identifying alumni relationships as a specific form of social capital, this study extends prior research by demonstrating their positive governance role in enhancing transparency, aligning managerial incentives, and promoting value-enhancing risk-taking. This provides a more balanced and comprehensive understanding of how informal social networks shape corporate behavior.

From a practical perspective, the results highlight the need for both regulators and companies to pay closer attention to the influence of executive social networks. Regulators could take such connections into account when developing risk-monitoring mechanisms, while firms may make constructive use of alumni ties to strengthen communication and trust within top management teams. Doing so may help support innovation and maintain a balanced approach to corporate risk-taking.

This study has several limitations that require future research to address. First, our analysis focused solely on the chairman and CEO of the company. Subsequent studies could include other board members or executives, as they may also influence corporate risk-taking and other strategic outcomes. Second, future research could explore additional types of social relationships, such as business partnerships or colleague networks, since their impacts on corporate risk-taking may vary across different contexts. Third, as the research is grounded in China's unique institutional and cultural environment, its findings may have limited applicability to other countries or regions.

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