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The Influence of Top Executives' Military Experience on Enterprise Investment Efficiency

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Abstract

The specific management style and decision preference of executives play an important role in investment efficiency. Taking A-share listed companies from 2010 to 2017 as a sample, this paper studies the impact of top executives' military experience on enterprise investment efficiency. The results show that top executives' military experience have a significant inhibitory effect on enterprise investment efficiency, The main performance is that top executives' military experience will promote enterprise over investment and have no significant impact on enterprise underinvestment. The test of influence mechanism shows that improving the risk-taking level of enterprises and adopting aggressive strategic planning are important ways for military executives to reduce enterprise investment efficiency and promote enterprise over investment.

Keywords

Military Experience; Investment Efficiency; Influencing Mechanism.

1. Introduction

At present, China has entered a stage of high-quality development, and problems such as slowing economic growth and declining market vitality have gradually become prominent, and there is an urgent need to transform growth momentum. In adition, overcapacity and repeated construction have become a business crisis that enterprises must face under excessive investment. To improve the quality of economic growth, it is necessary to change the growth momentum from investment scale-driven to investment efficiency-driven. Therefore, improving the eficiency of enterprise investment is of great significance to both the country and the enterprise. Solving the problems of information asymmetry and agency is an important way to improve the investment eficiency of enterprises. It not only requires external policy support and market supervision, but also requires enterprises to play a major role. As the management and investment decision makers of the enterprise, executives can have a non-negligible impact on the investment efficiency of the enterprise.

With the introduction of the upper echelons theory, scholars have begun to explore the impact of executives' gender, age, professional knowledge background, and early experience on corporate investment efficiency. Among them, the early experiences of executives will have an impact on their cognitive structure and decision-making preferences. The reform and opening up has greatly promoted the development of the market economy, and has also attracted a large number of teachers, public fficials and veterans with specific professional experience to join the business world. Among them, soldiers will shape their specifc thinking patterns and behavioral styles after being trained in a special environment. This characteristic is reflected in business decision-making and will have an impact on the strategy, operation and investment behavior of enterprises [1]. Investment efficiency is an important capability for the long-term operation of an enterprise. It is still unclear how senior executives' experience in the military will affect the investment efficiency of the enterprise, whether different situations will have a heterogeneous impact, and how it will affect it.

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Therefore, based on behavioral finance theory, combined with upper echelons theory and imprinting theory, this paper takes China's A-share listed companies from 2010 to 2017 as a research sample to empirically test the impact of executives' military experience on corporate investment fficiency, and use the mediation effect. The model examines the mechanism of executives' military experience on corporate investment efficiency. The contribution of this paper lies in the following two aspects: First, it expands and enriches the research on the influencing factors of corporate investment eficiency and the early experiences of executives. Second, combining the characteritics of executives with decision-making behaviors, it reveals the infuence mechanism of executives' military experience affecting the investment efficiency of enterprises.

2. Literature Review and Theoretical Analysis

2.1. Literature Review

The proposal of the upper echelons theory provides a theoretical basis for scholars to study the influencing factors of corporate decision-making and performance from the perspective of executive heterogeneity. In the early stage, the influence of executives on the company was mainly explored from the inherent attributes such as gender and age [2]. With the deepening of research and the diversity of executive teams, scholars have begun to explore the impact of executives on corporate decision-making and financial performance from the perspective of early experience. Malmendier et al. [3] found that executives with different early experiences will formulate different financing policies, and executives who have experienced the Great Depression are less likely to borrow externally. The diversification of different backgrounds and career paths will have different impacts on executives' management cognition and decision-making preferences. He et al. [4] constructed a composite career experience index of executives and found that the richness of CEO career experience will significantly increase the level of risk-taking of the company, especially when the company faces weak external supervision, its promoting effect is more significant.

As society pays attention to the issue of veterans' placement, the military experience of top executives has also attracted more and more scholars' discussions. Among them, the discussion on the risk perception of executives from military experience is particularly intense. Some scholars believe that military experience will shape the personality characteristics of executives' preference for risk and overconfidence [5]. Lai et al. [6] found that executives with military experience showed a more aggressive decision-making attitude and were keen to adopt high-risk financing methods to alleviate corporate cash shortages, and this effect was more significant in non-state-owned enterprises. Some scholars believe that military experience will make executives make more conservative and risk-averse decisions, reduce corporate investment behavior, and lead to a significant decline in corporate risk-taking [7]. And financial and accounting managers with military experience will show a conservative disclosure style, and the information disclosure of their companies is more accurate and comprehensive [8].

Investment efficiency is a key factor in corporate performance, corporate governance and sustainable development. Therefore, scholars have conducted in-depth research on the influencing factors of corporate investment efficiency from two aspects of corporate governance and financing constraints. From the perspective of corporate governance, Chen et al. [9] explored the impact of government intervention, financial development and the level of rule of law on corporate investment efficiency from the perspective of external governance environment. As an important means to solve the agency problem, internal governance can also improve the investment efficiency of enterprises by improving the quality of accounting information and exerting the supervision effect [10]. From the perspective of financing

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constraints, financing constraints will cause a shortage of free cash flow of enterprises, limit investment expenditures, and cause them to abandon investment projects with good returns, thereby reducing the investment efficiency of enterprises [11]. Through quasi-natural experiments, Fan et al. [12] verified that the introduction of the "Property Law" eased the financing constraints of enterprises, and their investment efficiency was significantly improved. As the decision makers and strategy makers of the enterprise, executives' personal characteristics and early experiences will also be reflected in investment decisions [13].

Existing literature has done a lot of research on the economic consequences of executives' military experience and the factors that affect corporate investment efficiency from different perspectives, but there are still areas that need to be further supplemented: First, the existing literature on the factors affecting corporate investment efficiency It mainly focuses on the internal corporate governance mechanism and financing constraints. Few literatures explore the impact on corporate investment efficiency from the unique perspective of the early experience of executives. Second, with regard to the relationship between executives and investment efficiency, few literatures distinguish the two aspects of underinvestment and overinvestment, and do not combine executive characteristics and decision-making behaviors to delve into their influencing mechanisms. Therefore, based on behavioral finance theory and imprinting theory, and starting from the personality characteristics and decision-making behavior of military executives, this paper explores the impact and mechanism of executives' military experience on corporate investment efficiency.

2.2. Theoretical Analysis

According to behavioral finance theory, the investment behavior of enterprises is not entirely based on rationality and sufficient information. It will be affected by the irrational emotions of executives and the inefficiency of the market, resulting in behavioral costs [14], resulting in cognitive biases, which in turn lead to inefficient investment of enterprises. The imprinting theory holds that an individual's experience in a sensitive period will profoundly affect his cognitive structure and psychological characteristics, which are reflected in decision-making behavior [15]. Military experience happens at a sensitive time when individuals build cognitive and behavioral habits. As recruits who have not yet matured in values and psychological literacy, they will undergo high-intensity military training and baptism to perform challenging tasks to shape the determination and ability to overcome adversity and difficulties, so as to shoulder the burden of protecting the country and the people. And executives who have been honed by the military will show full self-confidence and risk appetite when making corporate decisions, rely more on their own subjective cognition, and believe that they have the ability to take decision-making and management risks, so as to achieve success [16] . Therefore, the characteristics of overconfidence and risk preference will make top executives with military experience underestimate the potential risks of investment projects, overestimate the returns brought by the projects, and then tend to choose high-risk investment projects [17]. This will lead to over investment, which will reduce the investment efficiency of enterprises.

At the same time, military drills and fast-paced living arrangements have cultivated the vigorous military quality of the soldiers and a strong sense of competition. Reflected in the business environment, executives with military experience are more willing to adopt aggressive strategic planning and pursue the expansion of investment scale to obtain competitive advantages such as technology and talent[18]. Radical strategies will in turn increase the level of asymmetry of interests between management and shareholders, leading managers to over-invest to increase compensation [19], which often ignores the financial benefits of investment projects to the company, resulting in inefficient investment beyond a reasonable level. Executives with military experience are often inclined to establish ties with the government in pursuit of political promotion and a good image of social responsibility.

ISSN: 2688-9323

When faced with the choice of investment projects, projects that are beneficial to the society but with a negative net present value will still be included in the investment scope, resulting in excessive investment behavior and reducing the investment efficiency of enterprises. Based on the above analysis, the following assumptions are put forward:

Hypothesis 1: Compared with executives without military experience, executives with military experience significantly promote the inefficiency investment of enterprises.

Hypothesis 2: Executives with military experience will positively promote over-investment, but have no significant impact on under-investment.

3. Research Design

3.1. Sample Selection and Data Sources

The sample of this paper is China's Shanghai and Shenzhen A-share listed companies from 2010 to 2017. In order to improve the validity of the data, follow the research practice, exclude financial and insurance listed companies, exclude the companies that were st in the year, the companies with serious lack of relevant research variables, and the listed companies whose chairman and CEO changed in the year. After the above processing, 6445 company-year sample values were finally obtained. The military experience data of top executives is obtained through text analysis of "Executive Resumes" in the CSMAR database, and proofreading is carried out using media tools such as Baidu Encyclopedia and Sina Finance. Other data at the company level are obtained through the CSMAR database. To avoid errors caused by extreme values in the results, all continuous variables were winsorize from 1% to 99%.

3.2. Variable Definition

3.2.1. Explained Variable: Corporate Investment Efficiency

The investment efficiency of enterprises is the explained variable of this paper. Because a single financial indicator cannot accurately reflect the investment efficiency of enterprises, the Wurgler model, the marginal TobinQ model, and the capital investment expenditure model [20] are favored by scholars in measuring the investment efficiency of enterprises. Among them, since the capital investment expenditure model has the advantage of directly measuring the investment efficiency of enterprises in a given year, this paper adopts this model to measure the investment efficiency of enterprises. The specific model is shown in formula (1).

$$\begin{aligned} Inv_{i,t} = {} & \lambda_0 + \lambda_1 TobinQ_{i,t-1} + \lambda_2 Lev_{i,t-1} + \lambda_3 Cash_{i,t-1} + \lambda_4 Roa_{i,t-1} + \lambda_5 Age_{i,t-1} + \lambda_6 Size_{i,t-1} \\ & + \lambda_7 Ret_{i,t-1} + \lambda_8 Invest_{i,t-1} + \sum Year + \sum Industry + \varepsilon_{i,t} \end{aligned} \quad (1)$$

In formula (1), the explained $Inv_{i,t}$ variable represents the i company's investment expenditure in the t year. Divide by total assets. $TobinQ_{i,t-1}$, $Lev_{i,t-1}$, $Cash_{i,t-1}$, $Roa_{i,t-1}$, $Age_{i,t-1}$, $Size_{i,t-1}$, $Ret_{i,t-1}$, $Invest_{i,t-1}$ respectively represent the growth capacity, asset liability ratio, cash holding ratio, profitability, listing years, company size, stock return and investment level of the company in phase *t-1*. In order to control the influence of year and industry on the model results, the dummy variables of year and industry are added to the model respectively. Equation (1) to obtain the fitting residual of each observation value and then takes the absolute value to measure the investment efficiency variable of the enterprise, which is calculated as $Inv_{i,t}$. The greater the value, the more the investment efficiency of the enterprise deviates from the optimal level, the lower the investment efficiency. In this model, if the residual is positive, it indicates that the company has over-invested (*OInv*) in the current period; if the residual is negative, it indicates that the company has under-invested (*UInv*) in the current period, so the larger the absolute value is, the lower the investment efficiency of the enterprise.

ISSN: 2688-9323

3.2.2. Core Explanatory Variables: Top Executives' Military Experience

Based on upper echelons theory and the distribution of rights and responsibilities of Chinese enterprises, this paper limits the positions of chairman and CEO to the scope of company executives. Through text analysis of the resumes of the chairman and CEO in the current year, it is determined whether they have military experience. When the chairman or CEO has military service or military school experience, the military experience (Army) of the executive is taken as 1, otherwise it is 0.

3.2.3. Control Variable

The selection of control variables refers to the literature on enterprise investment efficiency, and controls the following variables: company size (Size), cash flow from operating activities (Cfo), return on total assets (Roa), financial leverage (Lev), redundant resources (Slack) , the shareholding ratio of the largest shareholder (Share), the size of the board of directors (Board), the independence of the board of directors (Out), the duration of the enterprise (Lage), the industry (Ind), the year (Year), and the region (Region). In order to reduce the influence of the individual effect of executives on the results, this paper also controls the gender (Gender) and age (Age) of executives. The specific definitions of variables are shown in Table 1.

Table 1. Variable Definition Table

Variable type	Variable name	Variable measure
Explained variable	Inv	Regression residuals take the absolute value in model (1)
	OInv	Regression positive residual value in model (1)
	UInv	Regression of negative residual values in model (1)
Explanatory variables	Army	Military experience is 1, otherwise it is 0
Control variable	Size	The natural logarithm of the company's total assets
	Cfo	The ratio of net cash flow from operating activities to total assets
	Roa	The company's current net profit divided by the total assets at the beginning of the period
	Lev	The company's liabilities for the year divided by its total assets
	Slack	(current ratio + equity liabilities + sales period expense ratio) / 3
	Share	Proportion of the number of shares held by the largest shareholder in the total number of shares
	Board	Natural logarithm of the number of directors
	Out	Ratio of independent directors to the number of directors
	Lage	Years of establishment
	Gender	1 for male, 0 otherwise
	Age	Actual age measure for executive sample year
	Ind	Control for industry factors
	Year	Control year factor
	Region	1 for listed companies in the east, 0 otherwise

3.3. Model Settings

In order to verify the relationship between executives' military experience and corporate investment efficiency, this paper constructs the following models to conduct related tests.

ISSN: 2688-9323

$$Inv_{i,t} = \beta_0 + \beta_1 Army_{i,t} + \beta_2 Size_{i,t} + \beta_3 Cfo_{i,t} + \beta_4 Roa_{i,t} + \beta_5 Lev_{i,t} + \beta_6 Slack_{i,t} + \beta_7 Share_{i,t} + \beta_8 Board_{i,t} + \beta_9 Out_{i,t} + \beta_{10} Lage_{i,t} + \beta_{11} Gender + \beta_{12} Age_{i,t} + \beta_{13} Ind + \beta_{14} Year + \beta_{15} \mathrm{Re}\, gion + \varepsilon_{i,t} \quad (2)$$

In model (2), if $\beta_1>0$ and it is statistically significant, it indicates that *Army* has a positive promoting effect on *Inv*, otherwise it is a negative inhibitory effect. The inefficient investment behavior of enterprises can be divided into over-investment behavior and under-investment behavior. In order to test Hypothesis 2, this paper further subdivides the inefficient investment behavior of enterprises into over-investment (*OInv*) and under-investment (*Uinv*), and put it into model (2).

4. Empirical Results and Analysis

4.1. Descriptive Statistics

The descriptive statistics of this paper are shown in Table 2. It can be seen that the average value of Army is 0.031, indicating that the proportion of executives with military experience in listed companies is about 3%. The average value of investment efficiency (Inv) is 0.048, indicating that the average investment efficiency of listed companies in my country is 4.8%. There are 2,702 samples of over-investment, and the mean value is 0.058; there are 3,743 samples of under-investment, and the mean value is 0.041, indicating that under-investment is more common among listed companies in my country, but the degree of over-investment is more serious than that of under-investment. The standard deviation of over-investment (OInv) is 0.080, which is much larger than that of under-investment (UInv), which is 0.031, indicating that over-investment varies more among listed companies.

Table 2. Descriptive statistics of variables

Variable	Number of samples	Mean	Median	standard deviation	Minimum	Maximum
Army	6445	0.031	0	0.173	0	1
Inv	6445	0.048	0.033	0.057	0	1.034
OInv	2702	0.058	0.032	0.080	0	1.034
UInv	3743	0.041	0.034	0.031	0.002	0.291
Size	6445	22.25	22.10	1.243	18.47	27.78
Cfo	6445	0.056	0.043	0.157	-1.327	4.005
Roa	6445	0.046	0.037	0.063	-0.645	1.093
Lev	6445	0.453	0.454	0.203	0.008	1.252
Slack	6445	2.193	1.515	2.914	0.038	104.7
Share	6445	0.367	0.333	0.814	0.034	46.56
Board	6445	2.170	2.197	0.199	1.386	2.890
Out	6445	0.372	0.333	0.055	0.182	0.750
Lage	6445	15.98	16	5.512	2	50
Gender	6445	0.952	1	0.213	0	1
Age	6445	53.33	53	6.882	27	79
Ind	6445	0.669	1	0.471	0	1
Region	6445	0.684	1	0.465	0	1

4.2. Analysis of Regression Results

The empirical test of the impact of executives' military experience on corporate investment efficiency is shown in Table 3. From the perspective of the full sample of investment efficiency, in column (1), top executives' military experience (Army) and corporate investment efficiency

ISSN: 2688-9323

(Inv) are significantly positively correlated at the level of 1%. It shows that the investment efficiency of enterprises managed by senior executives with military experience is lower than that of non-military executives. Hypothesis 1 is verified. Columns (2) and (3) are the effects of executives' military experience on over-investment and under-investment, respectively. In the sample companies with over-investment, the influence of executives' military experience on investment efficiency is significantly positive, that is, executives' military experience has a significant promoting effect on companies' over-investment in companies. However, in the underinvested sample, the military experience of executives has no significant effect on investment efficiency. Hypothesis 2 is verified.

Table 3. Executives' military experience and corporate investment efficiency

	(1)	(2)	(3)
Variable	*Inv*	*OInv*	*UInv*
Army	0.0169***	0.0350***	-0.0027
	(4.98)	(4.84)	(-0.98)
Size	-0.0031***	-0.0020	-0.0046***
	(-4.77)	(-1.34)	(-9.23)
Cfo	-0.0043	-0.0051	-0.0137***
	(-0.63)	(-0.30)	(-2.70)
Roa	0.0876***	0.1791***	0.0436***
	(6.75)	(5.52)	(4.54)
Lev	-0.0026	-0.0058	-0.0009
	(-0.54)	(-0.51)	(-0.25)
Slack	-0.0010**	-0.0045***	0.0008***
	(-2.29)	(-3.58)	(2.64)
Share	-0.0036	-0.0064	0.0033
	(-0.90)	(-0.69)	(1.04)
Board	0.0014	-0.0020	0.0012
	(0.39)	(-0.26)	(0.41)
Out	0.0148	-0.0037	0.0225**
	(1.17)	(-0.13)	(2.28)
Lage	-0.0005***	-0.0014***	-0.0001
	(-4.26)	(-5.19)	(-0.39)
Gender	-0.0005	-0.0029	0.0011
	(-0.18)	(-0.48)	(0.50)
Age	-0.0006***	-0.0010***	-0.0003***
	(-6.18)	(-4.76)	(-3.52)
Year	yes	yes	yes
Ind	yes	yes	yes
Region	yes	yes	yes
Constant	0.146***	0.186***	0.143***
	(9.69)	(5.35)	(11.84)
N	6,445	2,702	3,743
Adjusted R^2	0.036	0.054	0.075

Note: The t-statistic values in parentheses, *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively.

ISSN: 2688-9323

4.3. Robustness Test

4.3.1. Sample Self-selection Problem: Propensity Score Matching

Because executives with military experience may be more inclined to choose companies with aggressive strategies and risk preference in the process of job hunting, they already have low investment efficiency, which leads to the problem of sample self-selection. In order to solve this self-selection problem, this paper applies the Propensity Score Matching (PSM) method to control the company size, operating cash flow, financial leverage, shareholding ratio of the largest shareholder, executive age, and gender matching factors. According to the matching principle of 1:4, the nearest neighbor matching method is used to pair the samples, and then regress. The regression results are shown in Table 4. The regression coefficients of the variable Army for Inv and OInv are still significantly positive, indicating that the research conclusions are robust.

4.3.2. Variable Redefinition

Different measurement methods of variables may cause certain biases in the results. As China's market mechanism is not perfect, learning from the investment opportunities of western scholars represented by TobinQ can not truly reflect the current situation of China's enterprise investment efficiency. Therefore, this paper replaces TobinQ with the Growth rate of main business income to measure corporate investment opportunities, and adds the re-measured corporate investment efficiency index into the model for re-regression testing. The regression results are shown in Table 4. It can be seen that the results have not changed significantly, and the main conclusions are still established.

Table 4. PSM and Variable Redefinition

	PSM		Variable Redefinition	
Variable	*Inv*	*OInv*	*Inv*	*OInv*
Army	0.0134***	0.0393***	0.0084**	0.0293***
	(3.15)	(4.96)	(2.42)	(3.32)
Control	yes	yes	yes	yes
Year	yes	yes	yes	yes
Ind	yes	yes	yes	yes
Region	yes	yes	yes	yes
Constant	0.100**	0.110	0.146***	0.222***
	(2.02)	(1.27)	(9.54)	(5.58)
N	689	342	6,445	2,478
Adjusted R^2	0.123	0.141	0.031	0.053

Note: The t-statistic values in parentheses, *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively.

4.3.3. Endogeneity Test: Instrumental Variables Approach

Given that omitted variables may cause endogenous interference to the main conclusions, this paper adopts the instrumental variable method to alleviate the endogeneity problem. The instrumental variable refers to the processing method of Quan et al. [21], and selects the regional military atmosphere (Area_Army) as the instrumental variable for military experience (Army). The specific definition of Area_Army is the natural logarithm of the weighted number of generals first appointed by each region in New China in 1955. The weight is assigned according to the military rank of generals, in which the assigned proportion of field marshal, senior general, general, lieutenant general and major general is 5:4:3:2:1. The results are shown in Table 5. Whether it is the full sample or the overinvested sample, in the first stage, the regional military atmosphere (Area_Army) significantly affects the military experience of

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executives. In the second stage, the revised military experience coefficient of executives Army (Instrumented) still has a significantly positive impact on firms' inefficient investment and overinvestment. The above results show that after correcting the possible endogeneity problems, the variable Army still has a positive impact on the inefficient investment and over-investment of enterprises. In addition, both weak instrumental variables and over-identification passed the test.

Table 5. Instrumental variable estimates

	The first stage		The second stage	
Variable	*Army*	*Army*	*Inv*	*OInv*
Area_Army	0.0172***	0.0231***		
	(10.71)	(9.00)		
Army(Instrumented)			0.0566**	0.0950**
			(2.19)	(2.23)
Control	yes	yes	yes	yes
Year	yes	yes	yes	yes
Ind	yes	yes	yes	yes
Region	yes	yes	yes	yes
Constant	0.0861	-0.0300	0.144***	0.189***
	(1.56)	(-0.33)	(8.96)	(5.24)
N	6,445	2,702	6,445	2,702
Adjusted R²	0.023	0.043	0.015	0.030

Note: The t-statistic values in parentheses, *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively.

4.4. Further Research: Analysis of the Impact Mechanism

The above results have proved that executives with military experience can reduce the investment efficiency of enterprises and significantly promote the over-investment of enterprises. And theoretical analysis shows that it may promote the over-investment of enterprises by improving the level of risk-taking and adopting aggressive strategic planning. Therefore, this paper further uses the level of risk-taking and strategic aggressiveness of enterprises as mediating variables to explore the impact mechanism of executives' military experience on corporate overinvestment. The risk-taking level is measured by the volatility of corporate profits with reference to the research of boubakri et al. [22]. For the measurement of strategic aggressiveness (Stra), this paper refers to the practice of Bentley et al. [23]. The higher the Stra score, the more aggressive the company's strategy. To this end, this paper sets up the following intermediary model [24] to empirically test the influence mechanism of executives' military experience in promoting corporate overinvestment:

$$OInv_{i,t} = \alpha_0 + \alpha_1 Army_{i,t-1} + \alpha_2 Controls_{i,t-1} + Year + Industry + Region + \varepsilon_{i,t} \quad (3)$$

$$Mediator_{i,t} = \eta_0 + \eta_1 Army_{i,t} + \eta_2 Controls_{i,t} + Year + Industry + Region + \varepsilon_{i,t} \quad (4)$$

$$OInv_{i,t} = \gamma_0 + \gamma_1 Army_{i,t} + \gamma_2 Mediator_{i,t} + \gamma_3 Controls_{i,t} + Year + Industry + Region + \varepsilon_{i,t} \quad (5)$$

Among them, the Explained variable in Equation (3) and Equation (5) is overinvestment (OInv), the explanatory variable is the military experience of executives (Army), and the explanatory variable in Equation (4) Mediator represents the level of risk taking (Risk) and strategic

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aggressiveness (Stra) are two mediating variables, and Controls is the control variable. In addition, the Sobel mediation factor and the Bootstrap method were used to test the mediation effect, and the significance test index value was automatically given by the software, and the specific calculation method is not listed here.

Table 6 reports the results of the mediation test of firm risk taking (Risk) and strategic aggression (Stra). It can be seen from the results that in column (1) of the total effect model, executives' military experience (Army) over-investment in companies (OInv) is significantly positive at the 1% level. In the path model column (2) and column (4), the regression coefficients of Army and the mediating variables Risk and Stra are significantly positive at the level of 1% and 5%, respectively, indicating that executives with military experience have the trait of risk preference , significantly increasing the level of risk taking and adopting aggressive strategic planning. In the model columns (3) and (5), when the intermediary variable risk-taking level and strategic aggressiveness are added to the original model, their regression coefficients are significantly positive at the 1% level, and Army's regression coefficient becomes smaller, but still significantly positive. And Z values obtained by Sobel's test are all significant.

Table 6. Results of the mediation effect test

	(1)	(2)	(3)	(4)	(5)
Variable	*OInv*	*Risk*	*OInv*	*Stra*	*OInv*
Army	0.0350***	0.0088***	0.0325***	0.7990**	0.0340***
	(4.84)	(3.66)	(4.50)	(2.20)	(4.71)
Risk			0.2820***		
			(4.89)		
Stra					0.0012***
					(3.15)
Control	yes	yes	yes	yes	yes
Year	yes	yes	yes	yes	yes
IND	yes	yes	yes	yes	yes
Region	yes	yes	yes	yes	yes
Constant	0.1860***	0.0843***	0.1630***	22.02***	0.160***
	(5.35)	(7.24)	(4.64)	(12.60)	(4.46)
N	2,702	2,702	2,702	2,702	2,702
AdjustedR²	0.054	0.058	0.063	0.058	0.058
Sobel Z			0.0025***		0.0010*

Note: The t-statistic values in parentheses, *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively.

5. Conclusion and Implications

5.1. Conclusion

Taking the investment efficiency of enterprises as the starting point, this paper selects the A-share listed companies in Shanghai and Shenzhen from 2010 to 2017 as the research object, and examines the impact of executives' military experience on enterprise investment efficiency, and finally draws the following conclusions: executives' military experience and corporate investment Efficiency is significantly negatively correlated, which means that it promotes over-investment of enterprises, but has no significant effect on under-investment. The mechanism test shows that military executives have an impact on the company's over-investment by

increasing the level of corporate risk-taking and adopting aggressive strategic planning. The relevant research conclusions still hold after passing the robustness test.

5.2. Implications

The practical enlightenment of this paper is that enterprises should optimize the talent selection system and strengthen the construction of management team. The conclusions of this paper reveal the impact of early experience of executives on corporate investment decisions. Therefore, companies should take the personality characteristics contained in early experience into consideration when conducting talent selection and optimization of executive teams. In addition, in order to reduce the adverse impact of management on the investment efficiency of enterprises, enterprises should build an effective reward and punishment mechanism, give full play to the supervision effect of the board of directors, and avoid irrational decisions due to the subjective preferences of executives, thereby alleviating the principal-agent problem and improving investment efficiency.

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