The Effects of Employee Stock Ownership in Chinese Listed Companies

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Abstract Employee stock ownership as an incentive method has an important impact on business performance and value. This paper uses the panel data of listed companies over the period 2015 to 2017 to test the impacts of employee stock ownership on corporate performance and corporate value. It is found that the implementation of employee stock ownership by listed companies can significantly improve corporate performance and corporate value. The high-tech enterprises and non-high-tech enterprises are grouped and tested as the standard. It is found that the effects of employee shareholding implementation are significantly different. The effects of high-tech enterprises in implementing employee stock ownership are better than that of non-high-tech enterprises.

Keywords Employee shareholding · Corporate performance · Corporate value

1 Introduction

In the past 30 years, China's employee stock ownership has undergone several policy adjustments due to the development of corporate-owned enterprises and the

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restructuring of state-owned enterprises. In June 2014, the China Securities Regulatory Commission issued the "Guiding Opinions on the Pilot Implementation of the Employee Shareholding Plan for Listed Companies". It marks that China's employee stock ownership plan has moved towards a new era of standardization, systemization and proceduralization. Under the background of mixed ownership reform and with the standardization of the employee stock ownership, it is very practical to study the effects of employee stock ownership in Chinese listed companies in that it is not only based on comprehensive and time-sensitive data, but also is beneficial to the development of China's employee stock ownership system.

In the analysis of the effects of employee stock ownership, domestic scholars' research mainly focuses on evaluating the effect of employee stock ownership from the perspective of wealth effect, namely, internal and external situations and corporate performance. It is believed that employee equity distribution enhances employee efficiency, and has a positive impact on corporate performance in the short term. Foreign scholars pay more attention to evaluating the effect of employee stock ownership from the perspective of incentive effect. Although domestic and foreign scholars have studied the implementation effect of employee stock ownership from different aspects, there is no unified conclusion that employee stock ownership has positive impacts on corporate performance and value. In addition, given China's special economic system and social environment, as well as the continuously improving policy system, Chinese employees have certain innovations in terms of models, systems and scales. Hence, it is necessary to further explore the effects of implementing employee stock ownership in China. Moreover, the data of previous studies on supporting conclusions are not comprehensive enough and lack time-sensitivity. Therefore, based on the previous research results, this paper mainly uses the method of multiple regression analysis to establish a regression equation model, empirically test the effects of employee stock ownership on incentive effect and wealth effect from the aspects of enterprise performance and enterprise value, and conduct group inspections research on high-tech companies and non-high-tech enterprises. The study found that the implementation of employee stock ownership by listed companies can significantly improve corporate performance and corporate value. In addition, the effects of employee stock ownership are different between high-tech enterprises and non-high-tech enterprises. The effects of the former are better than the latter.

The contributions of this paper are mainly reflected as follows: Firstly, this paper studies the effects of listed shareholding from the aspects of corporate performance and corporate value which supplements and improves the existing literature on the analysis of the effects of listed shareholding. Secondly, the previous studies rarely involved data after 2014, while this paper has taken advantage of the lasted data, which will help people have a better understanding of the effects of the employee stock ownership in Chinese listed companies.

The next section of this paper is the theoretical analysis and empirical hypotheses. Section 3 is the research design. Section 4 is the empirical analysis. Section 5 is robustness test. Section 6 is conclusion.

2 Theoretical Analysis and Research Hypotheses

Rosen believes that employee stock ownership has a positive effect on corporate performance [1]. Later scholar Ding agreed with Rosen's point of view [2]. Huang and Zhang also believe that the incentive effect of employee stock ownership on corporate performance is not blindly positive, and there may be an inflection point. Exceeding certain percentage, the company's performance began to decline or even have a negative impact [3]. Why is there a positive effect between employee stock ownership and corporate performance? This paper considers the reasons as follows: from the perspective of agency theory, employee stock ownership combines the long-term value of the company with the employees' own interests, and promotes the interests of employees and the interests of shareholders to be consistent. As an incentive mechanism, it can effectively improve operational efficiency and the company performance. From the perspective of two-factor theory, the development of industrialization has promoted the contribution of capital elements to production gradually surpassing the labor factors. Therefore, capital owners are increasingly in the position of superior distribution, and laborers can only rely on their own labor to obtain wage income. If employees are allowed to hold shares in the company, then this social injustice can be reversed. On the one hand, shareholding employees earn income through labor, and on the other hand, they can obtain dividends through capital, which can reduce the impact of excessive social wealth between the rich and the poor, and effectively improve corporate performance. In view of this, this paper proposes hypothesis 1:

H1: The implementation of employee stock ownership in listed companies has a positive impact on corporate performance.

Sharing economic theory believes that, in contrast to the fixed wage system, a profit-sharing wage system should be implemented so that ordinary workers can share the growth gains of enterprises by sharing profits, and it is possible to achieve price equilibrium under full employment conditions; asset specificity theory believes that as the owner of human capital property rights, employees should share with the shareholders the residual control and residual claims of the enterprise; the stakeholder theory advocates that employees as important stakeholders should also participate in corporate governance and share the residual interests of the enterprise. Therefore, this paper believes that employee stock ownership is regarded as an incentive system for reforming employee benefits. It can share the residual profits of enterprises, have residual control and claim rights, reduce agency costs, improve employee enthusiasm, increase company performance, and accumulate shareholder wealth and increase company value. This raises the hypothesis 2:

H2: The implementation of employee stock ownership in listed companies has a positive correlation with corporate value.

Although employee stock ownership can be used as an incentive to mobilize employee enthusiasm and promote the company's performance and value, large-scale employee holdings may also lead to "free-riding" behavior [4]. Or, because employees who are employed by management become shareholders will be too "friendly" to the management, they will reduce corporate performance and shareholder wealth [5, 6]. In summary, the impacts of employee stock ownership of listed companies on company performance and company value need further empirical testing.

3 Research Design

3.1 Concept Definition

The employee stock ownership researched in this paper is based on the definition of employee stock ownership in the "Guiding Opinions on the Pilot Implementation of the Employee Stock Ownership Plan for Listed Companies" issued by the China Securities Regulatory Commission in 2014, that is, the listed company makes legal measures according to the wishes of employees. The employee obtains the stock of the company and holds it for a long time, and the equity of the shares is allocated to the employees according to the contract.

3.2 Sample Selection

This paper selects the panel data of the listed companies in which the A shares of the Shanghai and Shenzhen Stock Exchanges are held from January 1, 2015 to December 31, 2017 as the overall sample, and takes the annual report data of listed companies for three years from 2015 to 2017 as the main object of analysis. The announcement date of the employee stock ownership plan is 2015, and the expiration date is 2017 or after 2017. Because the employee stock ownership plan has a time limit, the duration refers to the effective time of the employee's shareholding plan. Therefore, the implementation of employee stock ownership by the listed company during this period may have impacts on the company's performance and corporate value. Then, excluding the following samples: the financial insurance industry; ST company; samples of major events during the event window; companies that are unable to obtain complete data. Finally, a total of 591 observation samples were obtained, including 330 high-tech companies and 261 non-high-tech companies. The sample data in this paper are from iFinD and CSMAR database. Unattained data are manually obtained by looking through the company's annual report. To eliminate the effects of extreme values, the continuous variables involved were subjected to a 5% bound Winsorize process.

3.3 Variable Selection

(1) Employee shareholding variable. For the independent variables, most domestic scholars use the proportion of employee stocks in total share capital or the number of employees holding shares [3, 7]. In this paper, the ratio of employee shareholding to total share capital and the proportion of employees participating in the shareholding plan to the total number of employees are the employee shareholding variables.

(2) Corporate performance variables. Corporate performance refers to the company's business results in a certain period of time. There are many variables to measure the performance of the company, including return on assets (ROA), return on equity (ROE), operating profit margin, earnings per share (EPS), net profit growth rate, etc. In the literature on predecessors' research on the incentive effect of employee stock ownership, there are many performance appraisal indicators that select indicators related to net profit. After learning from the existing literature, this paper chooses ROE to measure the performance of the company (Table 1).

(3) Enterprise value variables. Stewart's book, The Search for Values, demonstrates the usefulness of EVA, arguing that EVA is closer to the real economic profit of firms than other financial measurement methods, better explaining corporate value, and is the most directly related [8]. Moreover, the use of EVA-related indicators reflects a new corporate value, which aligns the interests of managers and shareholders, and is consistent with the goal of maximizing corporate value, leading to the increasing wealth of companies and shareholders. EVA does not encourage enterprises to sacrifice long-term interests for short-term gains, and pays attention to the long-term sustainable development of companies. However, it is difficult to obtain better empirical results by using EVA directly. The value of EVA of different enterprises differs greatly in magnitude. Therefore, using the previous literature for reference and choosing total assets EVA can also eliminate the impact of enterprise size on EVA.

(4) Control variables. Under the environment of economic market development, there are many factors affecting enterprise performance and enterprise value. This paper is to study the impacts of employee stock ownership on enterprise performance and enterprise value. Therefore, we choose variables to measure enterprise size, asset-liability structure and enterprise growth as control variables. The details are as follows: equity concentration, company size, total asset growth rate, intangible assets proportion, corporate financial leverage, actual controllers, industry control variables, total asset turnover, operating profit margin.

(a) Equity concentration. Equity concentration shows the concentration or dispersion of corporate equity. The higher the concentration of equity, the more concentrated the controlling shareholders' shares, which is decisive for the strategic planning and decision-making of the entire company. The degree of equity concentration affects the controlling shareholder's supervision and

Table 1 Definition variables

Variable nature	Variable name	Description
Independent variables	Employee stock ownership	The ratio of employee shareholding to total share capital (PERCENTAGE)
		The proportion of employees participating in the shareholding plan to the total number of employees (RANGE)
Dependent variables	Corporate performance	Return on equity (ROE)
	Corporate value	The total assets EVA (EVAA)
Control variables	CR10	The sum of the shareholding ratio of the top ten shareholders and use it to measure equity concentration
	ASSETGRO	(Total assets for the year—total assets of the previous year)/total assets of the previous year
	DEBT	Total liabilities/total assets
	INTANR	Ln (Intangible assets/total assets)
	LNA	Ln (assets)
	LNIN	Ln (Operating income)
	CONTROL	CONTROL = 1 if actual controller is State-owned enterprise, CONTROL = 0 if not
	INDUSTRY	INDUSTRY = 1 if corporate is high-tech, INDUSTRY = 0 if not
	TAT	The total asset turnover rate
	INP	Operating profit rate

control of management, which affects management's business behavior and investment decisions, and affects corporate performance and corporate value. This paper selects the total shareholding ratio of the top ten shareholders of listed companies (CR10).

(b) Company size. The scale of a company represents the scope of production and operation of a company. Different companies have different available resources. The company with a larger company has more labor, machinery and equipment resources, and the more mature internal control mechanism, therefore, the performance and value of the enterprise will be better [9]. In order to more clearly observe the company size and empirical regression of the research samples, this paper uses the natural logarithm of total assets and operating income of listed companies to express the size of companies.

(c) Growth ability. The company's growth ability represents the company's future development. The higher the growth of the company, the greater its potential

for future development, and its corporate performance will also increase significantly. This article uses the total asset growth rate (ASSETGRO) to indicate the company's growth.

(d) The proportion of intangible assets. Compared with non-high-tech companies, high-tech companies have higher R&D expenditures and higher human capital intensive characteristics, making them more demanding for technological innovation. Therefore, the control variable intangible assets accounted for the total assets ratio (INTANR) is added.

(e) Corporate financial leverage. The asset-liability ratio represents the capital structure and solvency of an enterprise, and shows the scale of the company's liabilities. Appropriate liabilities can improve the capital structure of enterprises, but in terms of long-term development, larger liabilities will increase the business risks of enterprises and affect corporate performance and corporate value. Therefore, this paper chooses the asset-liability ratio (DEBT) to represent the debt level of the enterprise as the control variable.

(f) The actual controller. State-owned enterprises are very vulnerable to government intervention, and their "internal control" is serious, which is not conducive to the improvement of corporate performance [10]. Therefore, the nature of the controlling shareholder will have a certain impact on the company's performance and corporate value. The degree of influence of employee stock ownership in state-owned enterprises and private enterprises on corporate performance and corporate value may be different. This paper divides the company's controlling shareholders (CONTROL) into two categories, namely state-owned holdings and non-state-owned holdings, state-owned holdings are assigned 1, otherwise 0.

(g) Industry control variable (INDUSTRY). According to the definition of high-tech enterprises by the National Bureau of Statistics, the industry with relatively high R&D investment intensity in the national economy is a high-tech enterprise. High-tech enterprises are 1, otherwise 0.

(h) The total asset turnover rate (TAT). TAT reflects the turnover rate of corporate assets. The higher TAT, the faster the asset turnover rate, the better the asset usage efficiency, and the better the company's operating performance.

(i) Operating profit rate (INP). INP is the ratio of the company's operating profit to total operating income. It is an indicator of the efficiency of business operations and reflects the ability of business managers to profit from operations in the context of operating costs.

3.4 Model Building

To verify Hypothesis 1, draw on the model set by the empirical research of Huang and Zhang for the performance of state-owned company employees' shareholding in Economic Science [3]. We replace the dependent variable EPS, ROA with ROE. The number of employees in the company is replaced by the number of participants in the proportion of all employees (RANGE), and the logarithm of the company's

operating income is added to measure company's scale. In addition, the industry control variables are used as control variables. The specific model is as follows:

$$\begin{aligned} ROE = {} & \alpha + \beta_1 RANGE + \beta_2 PERCENTAGE + \beta_3 CR10 \\ & + \beta_4 ASSETGRO + \beta_5 DEBT + \beta_6 INTANR + \beta_7 LNA \\ & + \beta_8 LNIN + \beta_9 CONTROL + \beta_{10} INDUSTRY + \varepsilon \end{aligned} \tag{1}$$

To verify hypothesis 2, follow (1). Referring to the previous study of enterprise value, we replace the explanatory variable ROE with EVAA. Because the impact of firm scale has been eliminated, the control variables LNA and LNIN for firm scale are removed to avoid the effects of multi-collinearity. And ROE, total asset turnover, and operating profit margin are added as controlled variables. The specific model is as follows:

$$\begin{aligned} EVAA = {} & \alpha + \beta_1 RANGE + \beta_2 PERCENTAGE + \beta_3 CR10 \\ & + \beta_4 ASSETGRO + \beta_5 DEBT + \beta_6 INTANR \\ & + \beta_7 ROE + \beta_8 TAT + \beta_9 INP + \beta_{10} CONTROL \\ & + \beta_{11} INDUSTRY + \varepsilon \end{aligned} \tag{2}$$

4 Empirical Analysis

4.1 Descriptive Statistics

Before descriptive statistics, this paper first performed a 5% tail-tailing process to remove extreme values. For the overall samples, a total of 591 data were observed. The statistical results are shown in Table 2.

Table 2 reports descriptive statistics for each sample of the full samples. The minimum value of ROE is −6.350, the maximum value is 23.11, and the average is 8.629, which indicates that the business performance difference between enterprises is large. At the same time, the minimum value of EVAA is −0.066, the maximum is 0.085 and the average is 0.007, which means that the enterprise value between enterprises is also different. In addition, there is a difference between the ratio of employee stocks to total equity (PERCENTAGE) and the number of employees participating in stock ownership plans to total employees (RANGE).

Because this paper mainly studies the effects of employee stock ownership in high-tech industries and non-high-tech industry companies, the samples of listed companies that implement employee stock ownership in this paper are divided into two sub-samples of high-tech companies and non-high-tech companies. Descriptive statistics are provided separately, which is convenient for us to compare the two industries. The comparison results of descriptive statistics are shown in Table 3.

Table 2 Employee-owned companies descriptive statistics

Variable	Obs	Mean	Std. dev	Min	Max
ROE	591	8.629	7.196	−6.350	23.110
EVAA	591	0.007	0.040	−0.066	0.085
RANGE	591	14.013	13.457	0.490	48.980
PERCENTAGE	591	1.092	0.843	0.149	3.400
CR10	591	58.001	12.207	34.440	78.760
DEBT	591	39.115	17.757	12.051	72.106
INTANR	591	4.156	2.951	0.197	11.256
ASSETGRO	591	26.547	28.770	−5.423	102.806
LNA	591	22.236	0.934	20.660	24.018
LNIN	591	21.461	1.165	19.492	23.744
TAT	591	0.572	0.291	0.171	1.245
INP	591	9.608	9.308	−10.158	28.707
CONTROL	591	0.909	0.288	0.000	1.000
INDUSTRY	591	0.558	0.497	0.000	1.000

Table 3 Descriptive statistics by industry

Variable	High-tech (N = 330)		Non-high-tech (N = 261)	
	Mean	Std. dev	Mean	Std. dev
ROE	9.158	6.63	8.211	7.836
EVAA	0.008	0.045	0.006	0.059
RANGE	13.596	13.493	14.342	13.427
PERCENTAGE	1.164	0.796	1.036	0.896
CR10	61.321	12.033	55.375	11.625
DEBT	43.374	15.448	35.748	19.518
INTANR	3.923	2.704	4.341	3.225
ASSETGRO	23.899	29.746	28.642	27.314
LNA	22.415	0.85	22.094	1.003
LNIN	21.736	1.067	21.242	1.227
TAT	0.544	0.27	0.663	0.498
INP	8.738	17.296	17.473	86.761
CONTROL	0.862	0.227	0.945	0.345

In Table 3, the average value of the dependent variable ROE in the high-tech industry is 9.158, and the standard deviation is 6.63. The average value of the non-high-tech ROE is 8.211, and the standard deviation is 7.836. It can be seen that the return on net assets of high-tech industry companies is higher than that of non-high-tech industry companies, and the fluctuation is smaller. In addition, the average value

of EVA of high-tech industry companies is higher and more stable than non-high-tech industry companies. The PERCENTAG of the high-tech industry is higher, but the RANGE is slightly smaller. It shows that companies in high-tech industry are more inclined to implement employee stock ownership than those in non-high-tech industry, give employees shares, encourage them to improve their work efficiency, and thus enhance the company's performance.

For the control variables introduced in this paper, the CR10, DEBT, LNA and LNIN of the high-tech industry are higher, indicating that the high-tech industry companies have higher equity concentration, larger enterprise scale and higher financial leverage. But INTANR, ASSETGRO, TAT and INP are slightly lower than those of non-high-tech industry companies, that is to say, the growth ability is slightly worse.

In summary, the effects of employee stock ownership on corporate performance and value vary among different companies. So, the specific implementation effect needs further testing.

4.2 Multi-collinearity Test

Before the panel data regression, it is necessary to test whether the model has multi-collinearity. In order to test the multicollinearity, the Variance Inflation Factor (VIF) is generally used for verification. VIF refers to the degree of dependence between variables. If the VIF value is large, it indicates that the variable has a more serious collinearity problem with other variables. It is generally considered that when $0 < \text{VIF} < 10$, there is no multicollinearity. In Table 4, the left two columns are the VIF of (1), and the right two columns are the VIF of (2). As can be seen from the

Table 4 Value of VIF

Variable	VIF1	Variable	VIF2
LNA	5.2	ROE	3.98
LNIN	4.68	INP	3.32
DEBT	1.87	TAT	1.9
RANGE	1.16	DEBT	1.4
INDUSTRY	1.16	INDUSTRY	1.16
CR10	1.13	ASSETGRO	1.16
CONTROL	1.12	CR10	1.13
ASSETGRO	1.12	CONTROL	1.09
INTANR	1.07	RANGE	1.07
PERCENTAGE	1.03	INTANR	1.06
		PERCENTAGE	1.03
Mean VIF	1.96	Mean VIF	1.66

results, the data does not have a multicollinearity problem, because the VIF of all independent variables and control variables are less than 10, so panel data regression can be carried out.

4.3 Empirical Results

(1) *Employee Stock Ownership and Corporate Performance*

Table 5 shows the results of multiple regression of (1). First, look at the regression of the first full samples. From the value of F and R^2, the overall fitting effect of (1) is good, and the equation as a whole is significant. The regression coefficients of the explanatory variables PERCENTAGE and RANGE are both positive, the shareholding ratio is significant at the significant level of 5%. The regression coefficient of RANGE is not significant, but it can still be seen that the higher the employee shareholding ratio is, the higher the ROE of the company is, that is, the better performance of the company is, thus verifying the H1: the implementation of employee stock ownership by listed companies has a positive impact on the company's performance.

Comparing the regression results of high-tech companies and non-high-tech companies, the former PERCENTAGE and RANGE have a positive correlation with ROE, while the latter has a negative correlation with ROE, which indicates that

Table 5 Multiple regression results of employee stock ownership and ROE

Variable	ROE of full samples	ROE of high-tech samples	ROE of non-high-tech samples
RANGE	0.009	0.047	−0.009
PERCENTAGE	0.607**	0.747*	−0.189
CR10	−0.046**	−0.06	−0.044*
DEBT	−0.049***	−0.072**	−0.042*
INTANR	0.192**	0.245*	0.017
LNA	−1.885***	−0.649	−3.354***
LNIN	4.673***	3.928***	5.812***
ASSETGRO	0.064***	0.084***	0.053***
CONTROL	0.804	3.762***	−0.832
INDUSTRY	0.279		
_cons	−50.496***	−60.826***	−45.432***
N	591	330	261
Adj-R^2	0.362	0.364	0.389
F	35.51	17.5	24.24
Prob > F	0	0	0

Note * corresponds to significant at 10%; ** significant at 5%; *** significant at 1%

the effects of the implementation of employee stock ownership on the performance of high-tech enterprises and non-high-tech enterprises are different and the effects of high-tech enterprises in implementing employee stock ownership are better than non-high-tech enterprises.

(2) *Employee Stock Ownership and Corporate Value*

Table 6 shows the results of multiple regression of (2). The regression results of the whole samples show that the R^2 of (2) is 0.7035, and the F value is 128.28 (P = 0.0000), indicating that the model is well fitted and there is a significant correlation between the interpreted variable and the explanatory variable as a whole. Among them, the explanatory variables RANGE and PERCENTAGE are significantly positively correlated with the explanatory variables at the significant level of 5%, indicating that EVAA rate and the economic value increase as the number of participants accounts for the total number of employees and the proportion of shares held growing. It means that the market value of the enterprise and the growth of shareholder wealth are assumed to be verified by H2. Comparing the high-tech and non-high-tech companies, the RANGE coefficients of both are positive, but the former is greater than the latter. About the PERCENTAGE coefficient, the former is positive and significant, while the latter is negative, indicating that the effects of high-tech enterprises and non-high-tech enterprises on the implementation of employee stock ownership has different effects. Further, the effects of high-tech enterprises

Table 6 Multiple regression results of employee stock ownership and EVAA

Variable	EVAA of full samples	EVAA of high-tech samples	EVAA of non-high-tech samples
RANGE	0.00015**	0.00015	0.00004
PERCENTAGE	0.00226**	0.00573***	−0.00183
CR10	−0.00004	−0.00002	0.00005
DEBT	0.00019***	0.00024**	0.0001
INTANR	0.00042	0.00078	0.00022
ASSETGRO	−0.00020***	−0.00019***	−0.00021***
ROE	0.00382***	0.00435***	0.00338***
TAT	0.0204***	0.00739	0.0313***
INP	0.00074***	0.00019	0.00133***
CONTROL	0.0112***	0.00556	0.0113***
INDUSTRY	0.00764***		
_cons	−0.0651***	−0.0523***	−0.0678***
N	591	330	261
Adj-R^2	0.7035	0.6214	0.816
F	128.28	55.01	116.33
Prob > F	0	0	0

Note * corresponds to significant at 10%; ** significant at 5%; *** significant at 1%

in implementing employee stock ownership are better than that of non-high-tech enterprises.

5 Robustness Test

5.1 Building Cross Terms

To test whether the empirical results of H1 are robust, the continuous variables RANGE and PERCENTAGE are first centrally normalized before constructing the interaction term, and then the interaction terms are constructed with INDUSTRY. This can avoid the effects of severe multi-collinearity. The centralized continuity variable is used in the construction of interactive items. When incorporating the model, the individual continuity variables still use the raw data. Observing the robustness results, PERCENTAGE has a significant positive effect on ROE when controlling the INDUSTRY. Hypothesis 1 is verified.

5.2 Replacing the Interpreted Variable

In order to further verify whether the empirical results of this paper are robust, replace the ROE with EPS in the robustness test section and substitute (1) to re-run the regression test. The test results still have not changed the original conclusion. It can be seen from the test results of the two methods that the main conclusions of (1) regression have not changed substantially, that is, the regression results of (1) are robust, and the incentive effect of employee stock ownership is significant. Hence, hypothesis 1 is verified.

In order to verify whether the empirical result of (2) is robust, replace EVAA with EVA per share, substitute (2) and perform regression test again. The test results show that unless the regression coefficient of the proportion of participants in the high-tech samples become negative, the direction of the regression coefficients of other explanatory variables does not change, at the same time the significance is similar. So the regression results for (2) are robust, the wealth effect of employee stock ownership is significant, which means hypothesis 2 is verified.

6 Conclusion

This paper takes the data of a-share listed companies over the period 2015 to 2017 as the research object, and conducts an empirical study on the economic effects of employee stock ownership on the company. The results confirm that the company

implements employee stock ownership, on the one hand, it plays an incentive role for employees, encourages employees to actively play the role of human capital, and enhances work enthusiasm, thereby improving company performance and corporate value. On the other hand, due to the interests of employees and the interests of other shareholders, the development of the company is consistent, the employees have the incentive to supervise the managers. In the actual business process, that can reduce the management's behaviors that damage the interests of shareholders due to information asymmetry, increase the enterprise's value and shareholder's wealth, as well as enable managers to share more profits with more efficient management measures. In addition, cause high-tech enterprises pay more attention to the investment of human capital, which has the characteristics of high investment, high growth, high risk and high profit, the empirical results show that high-tech enterprise is more effective than the non-high-tech enterprise to implement employee stock ownership.

The conclusions of this paper have the following two meanings: On the one hand, the previous researches on the effects of employee stock ownership have been studied from the aspect of corporate performance or corporate value. This paper comprehensively examines the impacts of employee stock ownership on corporate performance and corporate value, which can more comprehensively portray the effects of employee stock ownership. On the other hand, this paper conducts a group test based on the industry as a standard, and conducts a comparative study on the effects of employee stock ownership between high-tech enterprises and non-high-tech enterprises. It is found that the effects of high-tech enterprises in implementing employee stock ownership are more significant. That conclusion enriches the relevant research on the implementation of employee stock ownership analysis in different industries.

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