EXECUTIVE SHAREHOLDING RATIO REDUNDANT STRUCTURE AND CORPORATE PERFORMANCE

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Abstract

With the economic globalization and the reform of market economy system, all industries are facing increasingly fierce market competition. If an enterprise wants to be invincible in the competition, it must ensure the continuous improvement of performance. In this paper, based on the factors of improving corporate performance, the influence of executive shareholding ratio and redundant structure on corporate performance is analyzed. The results show that the shareholding ratio of senior executives is positively correlated with corporate performance, while the redundancy structure is negatively correlated with corporate performance. The possible research contributions of this paper are mainly as follows: 1) The research on the influence of executive shareholding ratio on redundant structure and redundant structure on enterprise performance has been enriched. 2) It provides reference for enterprise management organization redundancy practice. Redundant structure should not be too high. A large redundant structure means a large amount of idle funds and a small amount of funds for investment, which will damage enterprise performance.

Keywords: Executive Shareholding Ratio, Redundant Structure, Enterprise Performance

Introduction

Economic globalization and the reform of market economic system make all industries face increasingly fierce market competition. The core of enterprise competition is the improvement of enterprise performance, and the most direct and effective way is to invest. The proportion of executive shareholding is directly related to the investment intensity of enterprises, and investment behavior will inevitably affect the use of redundant resources and lead to changes in the redundant structure of enterprises. Scholars put forward the concept of organizational redundancy, academic circles have studied organizational redundancy from various levels. However, there are few studies on redundant structures, and less studies on redundant structures as intermediary variables. In fact, the impact of redundant resource structure on corporate performance cannot be ignored. In this paper, it is believed that the shareholding ratio of senior executives has a considerable impact on the redundant structure, thus affecting enterprise performance.

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Research Objectives

In this paper, a-share listed companies in Shenzhen and Shanghai from 2012 to 2017 are taken as the total samples, and the relationship among them is studied in a unified framework, including the proportion of executive shareholding, redundant structure and corporate performance. There are two research purposes: 1) enrich the research content of the influence of executive shareholding ratio on corporate performance through redundant structure; 2) it provides theoretical basis for enterprises to maintain a reasonable level of organizational redundancy.

Literature Review

Since different types of redundant resources have different functions, redundant resources are also classified from different perspectives in the existing literature. According to the rule of declining availability of redundant resources. Tan & Peng (2003) distinguish redundant resources into precipitate redundant resources and non-precipitate redundant resources, the former refers to additional management costs, while the latter refers to additional free flowing assets. Sharfman & Wolf (1988) divided the redundant resources into high and low flexible resources according to the degree of flexibility of management. Fang et al. (2009) divide redundant resources into material redundancy, human redundancy and relational redundancy. Yi, Liu & Gu (2018) believe that redundant resources can be divided into unabsorbed tissue redundancy and absorbed tissue redundancy.

In this paper, Tan & Peng (2003) were used to classify redundant resources into precipitative redundant resources and non-

precipitative redundant resources. The ratio of non-precipitating redundant resources to the number of precipitating redundant resources forms the organizational redundancy structure. Chen, Li & Li (2015) pointed out that has been discovered by academia on organization redundancy structure impact factors of the enterprise internal aspects: such as age, corporate political behavior, enterprise risk, managers average age, enterprise performance and turnover, enterprise difficulties, such as enterprise management state, enterprise life cycle and executives shareholding, etc.

Methodology

The research methods of this paper are as follows.

1. Literature research. At the early stage of writing, I read through a large number of relevant literature to understand the cutting-edge research results in this field. Through continuous summary and accumulation, I can obtain the experience of previous researches, find out the shortcomings and defects of existing researches, and find out the breakthrough point of research.

2. Normative analysis. The scientific nature of the analysis results depends largely on presuppositions. Therefore, the conclusions of normative analysis may be deviated from the actual economic situation.

3. Empirical analysis. On the basis of the hypothesis, verify the relevant data, and through the relationship among executive shareholding ratio, redundant structure and enterprise performance is empirically analyzed by establishing multiple regression model.

Theoretical Analysis and Research Hypothesis

1. The Proportion of Executive Shareholding and Corporate Performance

Li & Li (2006) believe that increasing the shareholding ratio of senior executives is closely related to the interests of managers and enterprises, which is conducive to improving the enthusiasm of managers, enhancing their sense of ownership, and encouraging them to strive to improve enterprise performance so as to maximize their own interests.

Only by making effective investment can enterprises achieve more performance, and executive shareholding improves their enthusiasm for investment. Chen & Huang (2006) used the data of industrial companies in Taiwan to explore the relationship between executive shareholding and R&D investment, and the results showed that executive shareholding can promote enterprise investment. Based on this, the paper proposes the following assumptions:

H1 The proportion of executive shareholding is positively correlated with corporate performance.

2. The Proportion and Redundancy Structure of Executive Shareholding

The product market competition in the industry in which the enterprise is located plays an important role in the enterprise resources and their utilization behavior, which directly affects the utilization of redundant resources. Precipitable redundancy hides in business process, while non-Precipitable redundancy resources have obvious advantages when investing in enterprises, which can give managers more choices and control space. At present, many companies have managers as shareholders in their companies, so that the interests of managers and shareholders tend to be consistent, which can stimulate the enthusiasm of managers for rational investment. In order to obtain more benefits, executives must ensure the continuity of investment projects, thus reducing the existence of non-precipitating redundant resources and redundant structure. Therefore, this paper proposes the following assumptions:

H2 The shareholding ratio of senior executives is negatively correlated with the redundant structure.

3. Redundancy Structure and Enterprise Performance

Li & Liu (2010) believe that the relationship between the deviation of actual redundancy structure and standard redundancy structure and enterprise performance is inverted U-shaped relationship. However, some scholars believe that the redundancy structure of enterprises should be determined by its influencing factors rather than by enterprises' self-selection. Once the actual redundancy structure of the enterprise is on the high side, it indicates that the setting of the redundancy structure is not suitable for the situation of the enterprise, which means that there is too much idle capital and relatively little capital for investment, which will result in the decline of enterprise performance. This paper agrees with the view that high redundancy structure has a negative impact on corporate performance. Based on this, this paper proposes the following assumptions:

H3 Redundancy structure is negatively correlated with firm performance.

4. The Effect of Redundancy Structure on the Relation between Executive Share Ownership and Corporate Performance

In this paper, Tan & Peng (2003) were used to classify redundant resources into precipitative redundant resources and non-precipitative redundant resources. The ratio of non-precipitating redundant resources to the number of precipitating redundant resources forms the organizational redundancy structure. The relationship between executive stock ownership and redundancy structure, redundancy structure and corporate performance has been discussed. That is to say, on the one hand, executive stock ownership affects corporate redundancy structure, on the other hand, redundancy structure also has a great impact on corporate performance. The refore, in this paper, the redundant structure is considered to play an intermediary role in the relationship between the executive shareholding ratio and corporate performance. Based on this, this paper proposes the following assumptions:

H4 Redundant structure plays an intermediary role in the process of executive shareholding affecting firm performance.

Research and Design
1. Data Sources

In this paper, a share listed companies in Shenzhen and Shanghai from 2012 to 2017 were taken as the total sample and panel data were adopted. Independent variables were selected for data from 2012 to 2016, and dependent variables were selected for data from 2013 to 2017. A total of 2659 companies were selected as samples, and 11882 sets of data were obtained. The sample data were from the CSMAR database of Guotai'an in Shenzhen and the WIND database of Wande. The following companies were excluded from the sample selection process: 1) exclude financial listed companies; 2) exclude companies that lack financial data or corporate governance data. A total of 2659 datawere obtained. In order to eliminate the influence of extreme values, Winsorize treatment of 1% and 99% quantiles were applied to all variables except dummy variables.

2. Measurement of Variables

Explanatory variables: This paper selects the shareholding ratio of senior executives as an independent variable (MH). After dividing listed companies into state-owned and nonstateowned holding samples, Zhou, Yang & Li (2010) found that the proportion of managerial ownership has a significant incentive effect on the company's operating performance, and the incentive degree is stronger in non-state-owned holding listed companies.

Variable being explained: The explained variable in this paper is enterprise performance (ROA). There are many indicators to measure corporate performance, including ROE, EBIT, ROA, EVA and so on. In this paper, the return on total assets used in the research Li, Qin & Zhang (2011) was used to measure corporate performance, and ROA was selected as the financial index to measure the performance of listed companies. ROA is the ratio of annual earnings to total assets.

Mediating variables: The mediation variable in this paper is redundant structure (SOS). On the one hand, the proportion of executive shareholding affects the company's redundancy structure, on the other hand, the redundancy structure also has a huge impact on the company's operating performance. Therefore, redundant structure is selected as a mediator

variable in this paper. Tan & Peng (2003) divide the redundant resources into sedimentary redundant resources and non-sedimentary redundant resources. Among them, the current ratio and asset liability ratio are used to measure non-precipitated redundant resources. The higher the liquidity ratio and asset-liability ratio are, the more redundant resources enterprises can mobilize quickly. The expense income ratio is used to measure the precipitated redundant resources. The larger the index value is, the more redundant resources have been internalized in the enterprise operation. The ratio of non-precipitating redundant resources to the number of precipitating redundant resources forms the organizational redundancy structure.

Control variables: There are many factors that affect corporate organizational redundancy and corporate performance. In order to prevent the occurrence of endogenous variables, enterprise size, enterprise growth, asset-liability ratio, asset duration and operating cash flow per share were selected as control variables to enter the model in this paper.

The natural logarithm of the total assets of SIZE company at the end of the term; The asset-liability ratio (DEBT) was expressed by the total liabilities at the end of the year/the total assets at the end of the year. (GROWTH) was expressed by the growth rate of business income. The term of assets (MOA) was expressed as net fixed assets/total assets. Cash flow per share (CASH) was expressed in terms of cash flow generated by operating activities/the number of common stock shares.

3. Model Construction

In order to explore the impact of executive shareholding on corporate performance, ROA of the following year was used as a dependent variable to measure the level of corporate performance, MH was used as an independent variable, enterprise size, enterprise growth, asset-liability ratio, asset maturity and operating cash flow per share were used as control variables, and panel data of 2659 enterprises from 2012 to 2017 are used to analyze.

Because panel data includes cross-sectional and time series changes, model recognition is needed first. In order to illustrate the influence of unobserved variables reflecting the performance level of enterprises in the model, a variable intercept panel data model was established. The models established were as follows:

Model (1):

$$ROA_{it+1} = \alpha + \beta_1 MH_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 CONCENT_{it} + \beta_5 DEBT_{it} + \beta_6 MOA_{it} + \beta_7 CASH_{it} + v_i + u_{it}$$

Where, α is the fixed intercept term, v_i is the individual effect of each enterprise performance, and u_{it} is the random perturbation term changing with the enterprise and year.

In order to explore the influence of executive stock ownership on redundancy structure, a variable intercept panel data model was established by taking SOS as dependent variable, executive stock ownership ratio as independent variable, enterprise size, enterprise growth, asset liability ratio, asset maturity and operating cash flow per share as control variables, and by considering the influence of unobserved variables reflecting the redundancy structure of enterprises. The models established were as follows:

Model (2):

$$SOS_{it}=\alpha+\beta_1MH_{it}+\beta_2SIZE_{it}+\beta_3GROWTH_{it}+\beta_4CONCENT_{it}+\beta_5DEBT_{it}+B_6MOA_{it}+\beta_7CASH_{it}+v_i+u_{it}$$

Where, α is the fixed intercept term, v_i is the individual effect of the redundant structure of each enterprise, and u_{it} is the random perturbation term changing with the enterprise and year.

In order to explore the influence of redundancy structure on enterprise performance, the enterprise performance ROA of the following year was used as the dependent variable, SOS as the independent variable, enterprise size, enterprise growth, asset-liability ratio, asset maturity and operating cash flow per share were used as the control variables, and considering the influence of unobserved variables reflecting enterprise performance, a variable intercept panel data model was established. The models established were as follows:

Model (3):

$$ROA_{it+1}=\alpha+\beta_1SOSi_t+\beta_2SIZE_{it}+\beta_3GROWTH_{it}+\beta_4CONCENT_{it}+\beta_5DEBT_{it}+B_6MOA_{it}+\beta_7CASH_{it}+v_i+u_{it}$$

Where, α is the fixed intercept term, v_i is the individual effect of each enterprise performance, and u_{it} is the random perturbation term changing with the enterprise and year.

In order to explore the mediating role of redundancy structure in the process of executive shareholding affecting corporate performance, a model (4) was established on the basis of model (1) and model (2).

Model (4):

$$ROA_{it+1}=\alpha+\beta_1MH_{it}+\beta_2SOS_{it}+\beta_3SIZE_{it}+\beta_4GROWTH_{it}+\beta_5CONCENT_{it}+\beta_6DEBT_{it}+B_7MOA_{it}+\beta_8CASH_{it}+v_i+u_{it}$$

Where, α is the fixed intercept term, v_i is the individual effect of each enterprise performance, and u_{it} is the random perturbation term changing with the enterprise and year.

If the coefficients before MH variables are significant in model (1), the mediation effect can be tested. In model (2), if the coefficient before MH variable is significant, and the coefficient before SOS in model (4) is significant, it can be shown that the redundant structure plays an intermediary role in the process of the impact of executive shareholding on enterprise performance. If the coefficient before MH variable in model (4) is significant, it shows that the mediation effect is part of the mediation effect. If the coefficient before MH variable in model (4) is not significant, it shows that the mediation effect is a complete mediation effect. In order to eliminate the influence of extreme values, Winsorize treatment of 1% and 99% quantiles were applied to all variables except virtual variables.

Results

1. Descriptive Statistical Analysis

Firstly, the variables are described by statistics, and the range, average level and fluctuation of the variables were observed. Descriptive statistics of ROA, redundancy structure, executive shareholding ratio, enterprise size, enterprise growth, asset-liability ratio, asset maturity and operating cash flow per share of 2659 enterprises in 2012-2017 were made, and the minimum maximum, mean and standard deviation of each variable were obtained. The output is show in the table 1

Table 1 Descriptive statistical tables

variable	min	max	mean	median	S.D.	N
ROA w	-15.05	20.35	3.904	3.438	5.226	11882
SOS w	-6.93	9.05	2.397	1.091	1.50	11882
MH w	0	0.604	0.0651	0.0002	0.135	11882
SIZE w	19.59	25.95	22.09	21.92	1.270	11882
GROWTH w	-0.556	3.948	0.188	0.0866	0.553	11882
DEBT w	0.0496	0.894	0.431	0.421	0.213	11882
MOA w	0.0021	0.709	0.224	0.189	0.167	11882
CASH w	-2.147	3.323	0.379	0.286	0.758	11882

As can be seen from the above table1, the ROA of 2659 enterprises in 2012-2017 has a minimum value of 15.05% and a maximum value of 20.35%. The average level of return on assets of each enterprise is 3.904%, and the standard deviation is 5.226, which indicates that the return on assets of each enterprise is quite different. The minimum value of redundancy structure is -6.93 and the maximum value is 9.05. The average level of redundancy structure of enterprises is 2.397 and the standard deviation is 1.50, which indicates that there are great differences among enterprises' redundancy structure. The minimum and maximum executive shareholding ratio is 0.604, and the average level of executive shareholding ratio is 0.0651. The minimum value of enterprise scale is 19.59, the maximum value is 25.95, the average level of enterprise scale is 22.09, and the standard deviation is 1.270, which indicates that there are great differences among enterprises. The minimum value of enterprise growth is -0.556, the maximum value is 3.948, and the average level of enterprise growth is 0.188. The minimum value of the asset-liability ratio is 0.0496 and the maximum value is 0.894. The average level of the asset-liability ratio of each enterprise is 0.431. The minimum value of fixed assets is 0.0021, and the maximum value is 0.709. The average level of fixed assets in enterprises is 0.224. The minimum value of operating cash flow per share is -2.147 and the maximum value is 3.323. The average level of operating cash flow per share of enterprises is 0.379.

2. Relevance Analysis

The efficiency of China's stock market is generally not high, and market value cannot objectively represent the value of enterprises, so it is relatively objective to use ROA as the explained variable. In order to analyze the linear correlation between two variables, the ROA, redundancy structure, executive shareholding ratio, enterprise size, enterprise growth, asset-liability ratio, asset duration and operating cash flow per share were analyzed, and the Pearson correlation coefficient between each variable was obtained. The output results show in table 2.

Table 2 Correlation analysis

	ROA_w	SOS_w	MH_w	SIZE_w	GROWTH_w	DEBT_w	MOA_w	CASH_w
ROA_w	1							
SOS_w	-0.039***	1						
MH_w	0.125***	-0.086**	1					
SIZE_w	-0.033***	0.044***	-0.267***	1				
GROWTH_w	0.130***	0.045***	0.045***	0.034***	1			
DEBT_w	-0.314***	-0.011	-0.281***	0.516***	0.031***	1		
MOA_w	-0.111***	0.044***	-0.134***	0.089***	-0.115***	0.082***	1	

Note: ***, ** and * means significant at 1%, 5% and 10% respectively.

As can be seen from the above table 2, the correlation coefficients of SOS, SIZE, DEBT, MOA and ROA are negative and significant at the level of 1%. This shows that there is a significant negative correlation between redundancy structure, enterprise size, asset liability ratio, asset maturity and asset return rate, and the redundancy structure, enterprise size, asset liability ratio, asset maturity and asset return rate change in the opposite direction. Redundant structure, enterprise scale, asset-liability ratio, asset maturity increase, and asset return rate decrease. The correlation coefficients of MH, GROWTH, CASH and ROA are all positive and significant at the 1% level, indicating that there is a significant positive correlation between the shareholding ratio of executives, corporate growth, operating cash flow per share and return on assets. Executive shareholding ratio, corporate growth, operating cash flow per share and return on assets change in the same direction. Executive shareholding ratio, enterprise growth, operating cash flow per share increase, return on assets increase.

The correlation coefficients of MH and SOS are both negative and significant at the level of 5% or 10%, which indicates that there is a significant negative correlation between the shareholding ratio of executives and the redundant structure. Executive shareholding ratio and redundant structure change in the opposite direction. The proportion of executive stock ownership increases and the redundancy structure decreases. The correlation coefficients of SIZE, GROWTH, MOA, CASH and SOS are all positive and significant at the 1% level, indicating that there is a significant positive correlation between enterprise size, enterprise growth, asset duration, operating cash flow per share and redundant structure. Enterprise scale, enterprise growth, asset maturity, operating cash flow per share and redundant structure change in the same direction. Enterprise size, enterprise growth, asset maturity, operating cash flow per share increase, and redundant structure also increase. The correlation coefficient between DEBT and SOS is not significant at the 10% level, which indicates that there is no significant correlation between asset-liability ratio and redundancy structure.

3. Regression Results

Fixed-effect model (1) – model (4) was analyzed by regression, and the results show in table 3.

Table 3 Regression results table

	(1)	(2)	(3)	(4)
	ROA_w	SOS_w	ROA_w	ROA_w
MH_w	0.5710***	-3.3618***		0.5682***
	(3.3039)	(-2.9207)		(3.0999)
SOS_w			-0.0008**	-0.0006**
			(-2.3388)	(-2.2295)
SIZE_w	-1.0295***	-0.8554**	-1.0214***	-1.0302***
	(-10.4901)	(-2.0639)	(-10.4708)	(-10.4942)
GROWTH_w	0.8628***	1.5041***	0.8640***	0.8640***
	(11.6325)	(4.8020)	(11.6345)	(11.6339)
DEBT_w	-0.9137**	-0.2112	-0.9181**	-0.9139**
	(-2.0540)	(-0.1124)	(-2.0638)	(-2.0542)
MOA_w	-2.5594***	0.4083	-2.5508***	-2.5591***
	(-4.4458)	(0.1679)	(-4.4313)	(-4.4450)
CASH_w	0.5498***	2.3057***	0.5517***	0.5517***
	(8.4138)	(8.3542)	(8.4101)	(8.4103)
Constant term	24.1247***	21.3452**	23.9570***	24.1420***
	(11.0790)	(2.3211)	(11.0610)	(11.0832)
sample size	11882	11882	11882	11882

Note: ***, ** and * mean that it is significant at the level of 1%, 5% and 10% respectively, and the coefficient t value is in brackets.

The F values of model (1) - model (4) were significant at the level of 1%, that is, the regression results were all significant in combination.

In the model (1), the coefficient of MH is 0.5710, which is significant at 1% level. This shows that executive shareholding has a significant positive impact on corporate performance. Moreover, when the executives shareholding ratio increases by 1, the ROA of assets increases by 0.5710% on average, and hypothesis H1 is verified.

In the model (2), the MH coefficient is -3.3618, which is significant at the 1% level. It shows that the executives shareholding has a significant negative impact on the redundant structure, and the increase of the executives shareholding ratio will reduce the redundant structure. Moreover, when the executives shareholding ratio increases by 1, the redundancy structure reduced by 3.3618 on average, and hypothesis H2 was verified.

In the model (3), the coefficient of SOS is -0.0008, which is significant at 5% level. It shows that redundancy structure has a significant negative impact on enterprise performance. Moreover, when the redundant structure increases by 1, the ROA of asset reduces by 0.0008% on average, and the hypothesis H3 is verified.

In the validated model (1), the coefficient before MH variable is significant, which can be used to test the intermediary effect and explore the intermediary role of redundancy structure in the process of the impact of executive shareholding on corporate performance. In the model (4), the coefficient of MH is positive and significant at 1% level, which is the same as that of MH in model (1). That is to say, while considering the effect of redundancy structure on corporate performance, executive shareholding still has a significant positive impact on corporate performance. In the validated model (2), the symbol of MH is negative and significant at 1% level, which indicates that executive shareholding has a significant positive impact on redundancy structure. In the model (4), the coefficient of SOS is negative and significant at the 5% level, which indicates that after considering the impact of executive shareholding on corporate performance, redundancy structure still has a significant net negative impact on corporate performance. That is, redundancy structure plays an intermediary role in the process of the impact of executive shareholding on corporate performance. The increase of the proportion of senior executives shareholding leads to the reduction of redundant structure, which is the factor for the improvement of enterprise performance. So, hypothesis H4 was verified.

Among the control variables, firm size, asset-liability ratio and fixed asset ratio have significant negative effects on firm performance.

The expansion of firm size, the increase of asset-liability ratio and fixed asset ratio will reduce firm performance. Enterprise growth and operating cash flow per share have a significant positive impact on enterprise performance. The improvement of enterprise growth and operating cash flow per share will promote the improvement of enterprise performance. Enterprise size has a significant negative impact on redundancy structure, and the expansion of enterprise size will reduce the redundancy structure of enterprises. Enterprise growth and operating cash flow per share have a significant positive impact on redundancy structure. The growth of enterprises and the increase of operating cash flow per share will improve the redundancy structure of enterprises. At the level of 10%, the ratio of assets to liabilities and the proportion of fixed assets have no significant effect on the redundancy structure.

4. Robustness Test

In order to test the robustness and reliability of the regression results, another variable ROE is used to replace ROA in the original model to test the robustness of the original model, so as to judge the impact of executive shareholding on corporate performance, the impact of redundant structure on corporate performance, and the intermediary effect of redundant structure in the process of executive shareholding on corporate performance. Regression analysis of the new model of robustness test shows that the results show in table 4.

Table 4 Robust Result Table

	(1) ROE_w	(3) ROE_w	(4) ROE_w
MH_w	2.5794***		2.5228***
	(3.5805)		(2.8762)
SOS_w		-0.0021**	-0.0015**
		(-2.4672)	(-2.3489)
SIZE_w	-1.9298***	-1.8916***	-1.9315***
	(-8.5577)	(-8.4385)	(-8.5628)
GROWTH_w	1.5915***	1.5946***	1.5945***
	(9.3384)	(9.3437)	(9.3437)
DEBT_w	5.4107***	5.3913***	5.4103***
	(5.2930)	(5.2737)	(5.2923)
MOA_w	-4.4843***	-4.4458***	-4.4835***
	(-3.3899)	(-3.3609)	(-3.3891)
CASH_w	1.0551***	1.0595***	1.0596***
	(7.0262)	(7.0285)	(7.0297)
Constant term	41.3025***	40.5072***	41.3447***
	(8.2547)	(8.1383)	(8.2603)
sample size	11882	11882	11882
R^2	0.0301	0.0299	0.0302
F value	40.8841***	40.5362***	35.7854***

Note: ***, ** and * mean that it is significant at the level of 1%, 5% and 10% respectively, and the coefficient t value is in brackets.

The F values of the new model (1), model (3) and model (4) are significant at 1%, that is, the regression results are all significant.

From the results of robustness, it can be seen that the coefficient symbols and significance of independent variables on dependent variables have not changed significantly after variable replacement of the model.

In the new model (1), the coefficient of MH is 2.5794, which is significant at the 1% level. This shows that executive shareholding has a significant positive impact on ROE. The increase of executive shareholding will promote the increase of enterprise ROE. If the executive shares increase by 1, the average ROE will increase by 2.5794%. Suppose H1 passes the robustness test, that is, there is a positive correlation between executive shareholding and corporate performance.

In the new model (3), the coefficient of SOS is -0.0021, which is significant at the level of 5%. This shows that redundant structure has a significant negative impact on enterprise ROE. The improvement of redundant structure will reduce the ROE of the enterprise, and the increase of redundant structure by 1 will reduce

the ROE by 0.0021% on average. Suppose H3 passes the robustness test, that is, redundancy structure is negatively correlated with firm performance.

In the validated new model (1), the coefficient before MH variable is significant, that is, the mediation effect test can be carried out. In the new model (4), the coefficient of MH is positive and significant at 1% level, which is the same as that of MH in the new model (1). In the previous model (2), the symbol of MH is negative and significant at 1% level. In the new model (4), the coefficient of SOS is negative and significant at the level of 5%. It shows that after considering the impact of executive shareholding on ROE, redundant structure still has a significant net negative impact on ROE, that is, redundant structure plays an intermediary role in the process of executive shareholding affecting ROE. The increase in the proportion of executive shareholding leads to the reduction of redundant structure, which is the factor for the improvement of enterprise ROE. Suppose that H4 passes the robustness test, that is, redundancy structure plays a mediating role in the process of the influence of executive shareholding on firm performance.

In conclusion, the conclusions of this paper have passed the robustness test and are reliable to some extent.

Discussions

1. The shareholding of executive can promote the improvement of corporate performance.

Only through effective investment can enterprises achieve more performance. Executive shareholding can be used as an internal incentive mechanism to promote their enthusiasm for investment and continue to make effective investment, so as to obtain higher corporate profits.

2. A reasonable redundancy structure is beneficial to the improvement of enterprise performance.

From the perspective of crisis response, enterprises should maintain certain redundant resources. However, from an investment perspective, the structure of redundant resources (the ratio of non-precipitating redundant resources to precipitating redundant resources) should be rationalized. Redundant structures should not be too high. Once the actual redundancy structure of the enterprise is too high, it indicates that the setting of the redundant structure is not suitable for the situation of the enterprise, which means that there is too much idle capital and relatively little capital for investment, which will result in the decline of enterprise performance.

Conclusions

Based on the factors to improve corporate performance, the influence of executive shareholding ratio and redundant structure on corporate performance were specifically tested in this paper. The research results are as follows:

1. There is a significant positive correlation between executive shareholding and corporate performance, and the higher the proportion of executive shareholding, the stronger the investment enthusiasm and the higher the profits, which is consistent with the research results of Li & Li (2006). Therefore, this paper

suggests that enterprises can increase the shareholding ratio of senior executives to make managers closely related to the interests of enterprises, which is conducive to improve the enthusiasm of managers, enhance the sense of ownership of enterprise managers, and encourage them to improve enterprise performance, so as to maximize their own interests.

2. Redundancy structure has a significant negative correlation with firm performance,

The high redundancy structure of enterprises will lead to the decrease of enterprise performance. The results are consistent with the views of Chen, Li & Li (2015) Therefore, this paper suggests that the redundant structure of the enterprise should not be too high, or the investment capital will be relatively reduced, and the investment capital will cause the decline of enterprise performance.

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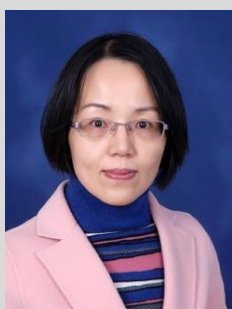
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