

The Determinant Factors of Board Leadership Structure: Working Ability or Succession Plan——Evidence from Chinese Listed Companies

Xie Xiangbing ⁺

Accounting Institute, Henan University of Economics and Law HUEL, Zhengzhou, China

Abstract. This paper studies the determinant factors of board leadership structure by using the data from the listed companies in China. The study finds that the chief executive officer (CEO) succession plan hypothesis is significantly negative related with the board leadership structure. However, the variables that reflect the working ability of CEO cannot be through empirical test. This paper also finds that compared with non-SOE, SOES are more likely to have a single board leadership structure. This paper explains the differences in the board leadership structure in China's listed companies, and provides the new empirical evidence that the board leadership structure does not have a fixed pattern for all the companies.

Keywords: leadership structure, working ability, succession plan, determinant factors.

1. Introduction

Financial circles have been regarded to endogenous problem of board leadership structure from the studies of Hermalin et al[1]. They consider that the degree of independence of the board of directors is determined by the game between CEO and the external independent director. In recent two years, some financial experts research on the endogenous problems of the board structure from different angles. The studies on the determinant factors of the board leadership structure are very limited. Brickley et al[2] regard that endowed with the position of chairman of the board is a part of promotion and succession program for CEO. According to Motivation theory, they regard that companies that separate the two positions would usually hire a new CEO, and later the companies would award the position of chairman of the board to the CEO with a good business performance. Their studies also indicate that a successful CEO is probably promoted to the chairman of the board when he/she retired. On the other hand, there are the problems of knowledge transmission and motivation with separation model. CEO has the special knowledge that directors don't have. The special knowledge will benefit the companies in a complex and sensitive information environment. Therefore, the enterprise with high degree of asymmetric information would profit more from combining the position of a CEO and that of a chairman of the board.

In the arguments whether combine the position of a CEO and that of a chairman of the board, we insist that only the endogenous problem can explain the root cause. According to Yiyun Chu et al.[3], the setting of the directorate's structure is based on the company's operating environment and the systematic arrangements, which fit it development. Therefore, this paper focuses on the endogenous problem of the determinant factors of board leadership structure.

2. Theoretical Development and Research Design

If an enterprise needs to design a rational and effective corporate governance structure, there must be a question need to be considered. Which mode of the broad leadership (right of execution) structure should be

⁺ Corresponding author. Tel.: + 86-037163519079; fax: +037163519079.
E-mail address: xxbottle@163.com.

chosen, combination of the position of CEO and that of chairman or separation of them? The “command uniformity” and execution power of decision could be easily achieved in the mode of combination, since this model can effectively avoid the internal friction caused by the conflicts between managers. However, as to the responsibility of supervision and management, the combination model would lead to the lack of supervision independence because people couldn’t supervise themselves. Therefore, if the directors have considered the advantages and the disadvantages of these two optional leadership structures, how would they make the choice?

According to succession plan hypothesis, endowing CEO with the chairman position is a part of promotion and succession program. This theory regards that companies, which separate the two positions would usually hire a new CEO. Directors would later award the position of the chairman to CEO with good business performance. While another theory presumes that combination of the two positions is mainly for adapting to the company business feature. Since a more complex business needs a more powerful CEO, the CEO could have better performance. As a result, combination model is the reflection of the CEO’s ability. This paper uses Logistic Regression to empirically analyze the determinant of board leadership structure. According to the analysis above and the research from Linck J S et al.[4] the study designs the following regression to measure the determinant factors of the board leadership structure:

$$\begin{aligned} Leadership = & \beta_0 + \alpha_1 Property + \alpha_2 Zhiheng \\ & + \alpha_3 Hybl + \beta_1 Lnasset + \beta_2 Lnsegments + \\ & \beta_3 Roa + \beta_4 CEOtenure + \beta_5 CEOratio + \\ & \beta_6 CEOage + \beta_7 Lnmb + \beta_8 Dayret var + \beta_9 Inratio + \varepsilon \end{aligned}$$

In this model, Leadership is the dependent variable, indicating the board leadership structure. It is a dummy variable. When the chairman of the board and the chief executive officer is the same person, it equals 0. Otherwise it equals 1. Property is a dummy variable, indicating the property of the stockholders. If the company is owned by the state, it equals 1. Otherwise it equal 0. Zhiheng is a check and balance variable, indicating the proportion held by the largest shareholder divided by the sum of the proportion held by the second largest shareholder and third largest shareholder. Hybl is a dummy variable, indicating the competition of the profession. If the profession is competitive, it equals 1. Otherwise it equals 0. Lnasset is the natural logarithm of the total assets of the company. This variable indicates the scale of the company. Lnsegments is the natural logarithm of the number of subsidiary corporations. ROA is the rate of return of the total assets. CEOtenure is the term of the chief executive officer, indicating the number of years of a person holding chief executive officer. CEOratio is the portion of the total capital stock held by the chief executive officer, indicating the ratio of the portion of the total capital stock held by the chief executive officer divided by the total capital stock. CEOage is the age of the chief executive officer. Lnmb is the natural logarithm of MB, which indicates the market value of the assets divided by the book value of the assets. Dayretyar is the variance of the stock return, indicating the variance of the daily stock return of the company in the last 12 months. Inratio is the ratio of the intangible assets, indicting intangible assets divided by the total assets. Industry indicates the professions. Year indicates time series.

3. Empirical Study Results and Analysis

3.1. The selection of sample and the resource of data

Data from 7000 A-share companies in Shanghai and Shenzhen Security Exchange Market from 2001 to 2005 are used as the sample in this article. We drop the observations in financial companies and the observations in insurance companies, due to the business nature and the specialty of these two professions. The dataset is conducted by the ShenZhen Guotaian Information Company (CSMAR). The statistical analysis is used in SAS9.0.

3.2. The results and analysis of the logistic regression

The leadership structure variable is set as a dummy variable, which equals 1 when the chairman of the board and the chief executive officer is held by different person, otherwise it equals 0. The results of the

regression by using the method of maximum likelihood are shown in Table 1. Table 1 shows the estimated symbols and the regression coefficient of the variables.

(Insert table 1)

From Model 1 and Model 2 in Table 1, we can tell that the effect of the number of Subsidiary Corporation, which represents the ability of a chief executive officer, is same as estimated. However, it is not significant. The effects of Lnasset and ROA are reverse as estimated. Both of them are significant at 5% level. This evidence does not support the hypothesis that the stronger ability the chief executive officer has, the higher possibility that the chairman of the board and the chief executive officer will be the same person.

The hypothesis of succession plan has the highest level of consistence. The results of the two models in Table 1 show that CEOage, CEOtenure, and CEOratio are all significant at 1% level. The effects of these three variables are same as estimated. According to the result, we use a model that only contains these three variables. We find that they are all significant at 1% level. Furthermore, the Wald- χ^2 value is 217.41 in this model, which is also significant at 1% level. The Wald- χ^2 value is only 2.40 less than that of the first model.

If we drop these three variables in the first model, and do the regression again, the Wald- χ^2 value will be 91.37, far less than 217.42. This evidence illustrates that CEOage, CEOtenure, and CEOratio can well explain the configuration of the board leadership structure. The results of these model show that if a company has an elder chief executive officer, a longer term of the chief executive officer, and the chief executive officer holds a higher portion of the total assets, the chairman of the board and the chief executive officer are more likely to be the same person.

Moreover, from the second model we can tell that Property, which is significant at 1% level, is positively associated with Leadership. This result indicate that compared with non-state-owned corporation, state-owned corporation is more likely to have a separate board leadership structure, which means the chairman of the board and the chief executive officer are different person.

4. Conclusion

Based on the data from 7000 A-share companies in Shanghai and Shenzhen Security Exchange Market from 2001 to 2005, we determined the key factors for listed companies' board leadership structure is succession plan hypothesis or working ability of CEO. The study finds that CEO succession plan hypothesis measured with CEO work time, CEO age and CEO shareholdings is significantly negative related with the board leadership structure dummy variable. However, the variables which reflect the ability to work can't be through empirical test. This shows that the original intention of Chinese listed company combination CEO and chairman of the board is to establish and to develop the position of chairman as a part of the promotion and succession program for the CEO. This paper also finds that compared with non-state-owned enterprises, state-owned enterprises are more likely to combine the position of CEO and that of chairman of the board. In a competitive industry, companies are more likely to separate these two positions. This paper explains the differences in the board leadership structure in China's listed companies, and provides the new empirical evidence that the board structure does not exist a fixed pattern for all the companies.

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6. Reference

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Tab. 1: The results of logistic regression in the board leadership structure

Variable	Model 1	Model 2	Model 3
Property		0.424*** (<.0001)	
Hybl		-0.708* (5.22%)	
Zhiheng		0.001 (39.14%)	
Lnasset	0.236*** (0.05%)	0.206*** (0.25%)	
ROA	0.184** (4.99%)	0.190** (4.9%)	
Lnseg	-0.031 (57.33%)	-0.015 (79.28%)	
Inratio	-0.688 (35.03%)	-0.461 (54.04%)	
Dayre	-1.713* (8.67%)	-1.811* (7.05%)	
Lnmb	-0.308 (15.06%)	-0.304 (16.34%)	
CEOte	-0.125*** (<.0001)	-0.131*** (<.0001)	-0.099*** (<.0001)
CEOage	-0.065*** (<.0001)	-0.066*** (<.0001)	-0.054*** (<.0001)
CEOratio	-9.465*** (0.3%)	-7.974*** (0.28%)	-4.677*** (0.39%)
Intercept	0.141 (92.15%)	0.514 (72.15%)	4.897*** (<.0001)
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Sample	5670	5613	6682
Pseudo- R^2	9.25%	9.77%	7.31%
Wald χ^2	219.82	242.40	217.42
p value	(0.001)	(0.001)	(0.001)

(Annotated: Levels of significance are indicated by *, **, and *** for 10%, 5%, and 1% respectively;p-value in parenthesis)