# A Study on the Correlation between the Characteristics of Board of Directors and Corporate Performance

Yifan Guo Kings business school, King's College London, London, UK guoyifan023@163.com

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**Abstract:** The board of directors is the core organization of listed corporates, undertaking the important decision-making and supervision responsibilities of the corporate. The effectiveness of board governance will have a very important impact on the value and development of the corporate. This paper uses the panel data of Shanghai and Shenzhen A-share listed companies from 2015 to 2018 to study the correlation between the characteristics of the board of directors and corporate performance. The results show that corporate performance is positively correlated with the size of the board of directors and the proportion of independent directors, but not with Chairman and general manager. Based on this, this paper puts forward relevant solutions to improve the relevant system of the board of directors, hoping that the research results will be helpful to the relevant industry.

### 1. Introduction

In recent years, with the continuous development of China's securities market, more and more scholars begin to pay attention to the research of modern corporate governance. As the important core department of the corporate, the characteristics and governance effect of the board of directors have a direct impact on the normal operation and performance of the corporate. Therefore, establishing a standardized and effective board of directors is an important link to improve the efficiency of modern corporate governance. Based on the existing research results, this paper takes the data of Shanghai and Shenzhen A-share listed companies as samples for empirical test, and puts forward relevant suggestions on the basis of this test, so as to provide help for improving the efficiency of corporate governance and promoting the better development of the corporate.

## 2. Review of Relevant Literature

The board of directors is divided into three types: independent characteristics (including the size of the board of directors, the situation of two concurrent duties, the proportion of independent directors), incentive characteristics (shareholding ratio and salary distribution of the board of directors) and behavioral characteristics (frequency of board meetings). Different characteristics also bring different corporate performance.

First of all, in terms of the independent characteristics of the board of directors, Jay Dahya's (2002) research showed that independent board of directors is more conducive to the improvement of corporate performance. However, the scholars such as William (2003) conducted research on this issue to find that the size of the board of directors has no direct relationship with corporate performance. Secondly, in terms of the incentive characteristics of the board of directors, Zhang Lifeng (2011) studies that the proportion of board shares is not directly related to the corporate performance, while Tang Jianxin (2013) and other researchers thought that there is a negative correlation between board shareholding and corporate performance<sup>[1]</sup>. Finally, on the behavioral characteristics of the board of directors, Ning Jiayao's (2008) studies showed that the frequency of meetings has different performance correlations for different periods of the company, which is positively related to the current and next performance and negatively related to the performance of

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the previous period. However, Li Changqing et al. (2004) thought that the frequency of meetings is not related to the corporate performance.

Therefore, there are many differences in the research at home and abroad on the correlation between the characteristics of board of directors and the corporate performance, so the research on this aspect needs to be further strengthened.

# 3. Research Hypotheses

# 3.1 Board Size and Corporate Performance

This paper holds that the number of directors is positively related to the corporate performance. The increase of the number of people means that the interest groups represented behind each person will also be more, and provide more information resources for the board of directors. The corporate can make better use of these resources, which is conducive to the expansion of the corporate's business. In addition, with the increase of the number of the directors, the corporate's management and major decisions will be more fully studied and communicated, and the decisions will be more scientific and prudent, which is more conducive to the governance of the board of directors and the improvement of the corporate performance.

Therefore, this paper proposes the assumption that the board size is positively related to the corporate performance.

## 3.2 Proportion of Independent Directors and Corporate Performance

Compared with independent directors, internal directors tend to worry about their concurrent positions when making major decisions in the corporate, and are also affected by the management of the corporate to a certain extent. They can't make a more accurate analysis from an objective point of view, thus affecting their role in supervising the operation of the corporate. In addition, the external directors often have more professional knowledge and experience than the internal directors, and have a certain social reputation. Therefore, the independent board of directors pays more attention to its own reputation, and usually performs its duties from the perspective of serving the corporate and promoting the better development of the corporate.

Therefore, this paper puts forward the hypothesis that independent directors are positively correlated with corporate performance.

# 3.3 CEO Duality and Corporate Performance

Usually, the chairman and the general manager need to be held separately, so as to ensure the independence of the chairman's authority. However, in reality, there are often many conflicts caused by different people holding two positions, which have a certain impact on the corporate production and operation. It can be said that CEO duality have both advantages and disadvantages. On the one hand, it can avoid the conflicts caused by different positions, but on the other hand, it also needs to have a strong sense of self-supervision, which is often difficult in practical work, so the independence of the board of directors is difficult to guarantee. There are different views on the relationship between CEO duality and corporate performance in academia. This paper holds that the role of the board of directors will be affected by the external environment, and the relationship between CEO duality and corporate performance needs to take environmental factors into account.

Therefore, this paper believes that CEO duality is not related to corporate performance<sup>[2]</sup>.

## 4. Research Design

## 4.1 Sample Selection and Data Sources

This paper selected A-share listed companies in Shanghai and Shenzhen Stock Exchange from 2015 to 2018 as samples, and deleted companies in high-risk industries such as finance and insurance, variable missing samples and ST samples. A total of 15078 valid samples were obtained. STATA.11 was used for data processing.

#### 4.2 Research Model and Variable Definition

$$ROA = \beta_0 + \beta_1 \times BOA RD + \beta_2 \times SIZE + \beta_3 \times GOV + \beta_4 \times LEV + \beta_5 \times BANK$$
  
 $+\beta_6 \times A GE + \varepsilon$  (1)  
 $ROA = \beta_0 + \beta_1 \times DULI + \beta_2 \times SIZE + \beta_3 \times GOV + \beta_4 \times LEV + \beta_5 \times BANK$   
 $+\beta_6 \times A GE + \varepsilon$  (2)  
 $ROA = \beta_0 + \beta_1 \times ERZHI + \beta_2 \times SIZE + \beta_3 \times GOV + \beta_4 \times LEV + \beta_5 \times BANK$   
 $+\beta_6 \times A GE + \varepsilon$  (3)

Variable selection: the corporate performance is the net profit as the dependent variable; the number of board of directors and independent directors is independent variable; the number of CEO duality is 1, and the separation of two posts is 0. The corporate size, asset responsibility rate, the listed years and the nature of the corporate's property rights are the control variables.

Table 1 Correlation Coefficient Table

Table 2 Regression Results And Analysis

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	ROA	BOARD	DULI	ERZHI	SIZE	GOV	LEV	BANK	AGE
ROA	1								
BOARD	0.00300	1							
DULIo	-0.017**	-0.380***	1						
ERZHI	0.046***	-0.162***	0.086***	1					
SIZE	0.023***	0.320***	0.024***	-0.195***	1				
GOV	-0.105***	0.251***	-0.043***	-0.262***	0.345***	1			
LEV	-0.377***	0.139***	-0.0110	-0.153***	0.318***	0.243***	1		
BA NK	-0.332***	0.087***	-0.036***	-0.068***	0.135***	0.102***	0.614***	1	
A GE	-0.183***	0.082***	-0.026***	-0.238***	0.213***	0.363***	0.341***	0.155***	1

表 2 回归结果与分析

	(1)	<b>T</b> 值	(2)	<b>T</b> 值	(3)	T 值
BOARD	0.0008***	-2.86				
DULI			0.0385***	-4.48		
ERZHI					-0.001	-0.89
SIZE	0.0085***	-19.05	0.0088***	-20.59	0.0087***	-20.25
GOV	-0.0063***	-5.65	-0.0061***	-5.46	-0.0060***	-5.39
LEV	-0.0821***	-28.32	-0.0819***	-28.25	-0.0821***	-28.31
BANK	-0.0708***	-14.46	-0.0711***	-14.52	-0.0705***	-14.4
AGE	-0.0007***	-8.36	-0.0008***	-8.52	-0.0008***	-8.46
CONS	-0.1126***	-11.72	-0.0994***	-9.9	-0.1114***	-11.5
N	14056		14056		14056	
$R^2-A$	0.192		0.193		0.192	
F	120.6		121.1		120.2	

注:\*\*\*、\*\* 和\*分别表示在1%、5%和10%水平上显著。

Note:\*\*\*,\*\* and \* show that it is significant at 1%, 5% and 10% levels respectively.

Based on the analysis of the results of the three regression models in Table 2, the higher the regression coefficient is, the greater the influence of variables on the dependent variables is. Therefore, through the research and data analysis, we can see that the size of the board of directors and the proportion of independent directors are positively correlated with the corporate performance. CEO duality is basically not correlated with the corporate performance. The three hypotheses mentioned above have passed the test.

# 5. Conclusion and Suggestions

#### 5.1 Conclusion

Based on the sample data of 15078 A-share listed companies in Shanghai and Shenzhen Stock Exchange from 2015 to 2018, this paper examines the relationship between board characteristics and corporate performance. Applying theoretical analysis, this paper puts forward some research hypotheses of the relationship between the two. And through data analysis, it is proved that the size of the board of directors and the proportion of independent directors are positively correlated with corporate performance, and CEO duality is almost not correlated with corporate performance.

# **5.2 Policy Suggestions**

## 5.2.1 Enrich the Board Structure of Directors and Control the Board Size Reasonably

China's *Corporate Law* has a clear stipulation on the size of the board of directors, which stipulates that the number of the directors is within the range of 5-19. We know that the board members in different environments have different social resources, and they have different opinions on issues and decision-making. Enriching the board members can improve the corporate's social resources and scientific analysis of decision-making, so as to promote the improvement of corporate performance, but on the other hand, too large number of directors will undoubtedly increase the cost of the corporate, resulting in a waste of resources. Therefore, the specific size of the board of directors needs to be set scientifically according to the actual situation of the corporate, so as to ensure that it meets the needs of the corporate's development and operation, and can effectively improve the corporate performance.

# **5.2.2** Improve the Independent Director System

The independent director system originated from the Anglo-American law system. Later, some listed companies in China gradually introduced the independent director system. It can provide more objective decision-making opinions when making major decisions, and play a positive role in improving the corporate governance structure and standardizing the operation of the corporate. However, there are still some problems in the independent director system in China. We can improve the relevant system through the following points. Firstly, we should appropriately increase the number of independent directors and improve the independent director system to ensure the real "independence" of independent directors and ensure that independent directors will not be restricted by the relevant internal constraints of the corporate when exercising the rights of the board of directors. Secondly, we should open and disclose the appointment procedures and related information of independent directors, establish the responsibility system of independent directors, and establish the mechanism of independent directors' behavior and reputation, so as to restrict the board of directors and encourage the board of directors to play more supervisory and incentive roles. Finally, we should strengthen the time management of independent directors to perform their duties. Since independent directors are usually part-time directors, they often lack pertinence in the specific management of companies, and are more used to judge by personal experience. Meanwhile, the independent directors often concurrently serve as directors of several listed companies, and their energy and time are greatly dispersed. Therefore, it is necessary to make corresponding regulations and management on the time of independent directors' type responsibilities, so as to ensure that they can perform their duties as much as possible.

## 5.2.3 Reasonably Choose CEO Duality or Separation

There is no obvious correlation between the duality or separation of chairman and general manager for the corporate performance. Generally speaking, CEO duality is more conducive to the management of the corporate, avoid some contradictions, and improve the management efficiency of the corporate. But on the other hand, due to the influence of China's economic market, compared with foreign developed countries, the development of China's capital market has not been mature. There are still loopholes in some supervision mechanisms<sup>[3]</sup>. CEO duality puts higher professional

requirements and professional quality requirements for CEO to do a good job in self-supervision. Under the influence of many factors, after comprehensive analysis and consideration according to the corporate's own development needs and the professional quality of the CEO when holding a director's post, the corporate can make a more scientific and reasonable choice. Taking the corporate's interests as the starting point, the corporate can make timely adjustments according to the corporate's development and changes in the external economic environment.

# **5.2.4 Other Aspects**

In addition to the above-mentioned points, the correlation between characteristics of board of directors and corporate performance is also affected by many other factors, such as the shareholding ratio of the board of directors, the gender structure ratio of board members, the age of board members, and the external market environment. Therefore, it is difficult for the change of a single variable of the board of directors to have an absolute impact on corporate performance. Therefore, the corporate needs to consider comprehensively from many aspects to ensure that the board of Directors established can play a good role in promoting the development of the corporate.

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