

# Institutional Investor Shareholding, Corporate Internal Control And Corporate Social Responsibility

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**Abstract.** This paper takes A-share listed companies from 2013 to 2021 as research samples to explore the connection between institutional investor shareholding, internal control and firm ESG performance. Among them, institutional investor shareholding and corporate ESG performance are the main research objects, and the intermediary effect of corporate internal control is also discussed. The research results show that institutional investor shareholding can promote the improvement of ESG performance of enterprises, corporate internal control plays an intermediary role in the relationship between institutional investors and ESG performance.

**Keywords:** Institutional investor; ESG; Internal control; Firm heterogeneity

## 1 Introduction

The concept of ESG has become a hot investment in the capital market, and more and more investors have incorporated ESG indicators into the investment decision-making process. Research shows institutional investors like to hold the stocks of firms with good ESG performance. Therefore, it is worth further study whether institutional investors can effectively use internal control and play the role of external governance to promote enterprise ESG performance. Hence, the paper discusses the factors affecting firm ESG performance from the angle of institutional investors' shareholding. The main goal is to find a way to promote corporate ESG performance, that is, to improve internal control through institutional shareholding, which enrich the achievement on factors affecting corporate ESG performance.

## 2 Literature review and research hypothesis

### 2.1 Literature review

Now literature studies have found institutional investors play an crucial role on promoting companies to perfect their environmental, social and corporate governance performance (Pucheta, 2018)<sup>[1]</sup>. Bronson et al. (2006) found the higher level institutional investor holding shares, higher voluntary provision of internal control management reports<sup>[2]</sup>. Wu Lijun (2019) found that corporate governance level and internal control quality are correlated with social responsibility information disclosure<sup>[3]</sup>.

## **2.2 Theoretical analysis and research hypothesis**

### **2.2.1 Institutional investor shareholding and corporate ESG performance**

Due to the existence of agency problems, managers may damage the interests of enterprises and shareholders out of their own self-interest. Institutional investors will alleviate agency conflicts and information asymmetry and safeguard their own rights and interests. In addition, institutional investors rely on their professional investment ability and huge capital advantages to fully grasp the market dynamics, identify the value of ESG investment, and at the same time, they can rely on their status as major shareholders to have a greater say in order to supervise management and safeguard their own interests (Bartov, 2000)<sup>[4]</sup>.

H1: The shareholding of institutional investors can promote the improvement of ESG performance of enterprises.

### **2.2.2 The mediating effect of internal control on institutional investors' shareholding and firm ESG performance**

In a high-level internal governance environment, internal control will play a more active role in the disclosure of social responsibility messages. Institutional investors can facilitate the effectiveness of firm control and better manage the internal operation of enterprises. Institutional investors pay more attention to the performance of ESG of enterprises. Therefore, it is speculated that there is an intermediary effect of internal control at the connection between institutional investors' shareholding and ESG performance of enterprises.

H2: Internal control has a mediating effect in the positive correlation between institutional investors' shareholding and ESG performance.

### **2.2.3 Shareholding of institutional investors and ESG performance of heterogeneous enterprises**

The frequent absence of ownership subjects in state-owned firms often leads to poor daily supervision of enterprises, and then the phenomenon of management opportunism, so the management is more likely to issue misleading financial and accounting information for their own interests (Wang Kasei et al., 2006)<sup>[5]</sup>. By contrast, the market competition environment of private enterprises is more cruel and fierce. Enterprises have to improve their own governance mechanism and enhance their governance ability to increase competitiveness, so as to obtain better development, and the status of institutional investors' shareholding is not obvious.

H3: The positive impact of institutional investor shareholding on ESG performance of enterprises is more significant in state-owned enterprises.

## **3 Research design**

### **3.1 Sample selection and data sources**

Taking A-share listed firms from 2013 to 2021 as the initial research sample, 13,741 observation data samples were finally obtained. The ESG performance in the article is taken from the Huazheng ESG rating index in the WIND database, the internal control indicators are

taken from the Dibo database, and other data are taken from the Guotai'an database. The data collection and analysis of this article were carried out using Excel and Stata16.0.

### 3.2 Study variables

#### 3.2.1 Enterprise ESG Performance (ESG)

Huazheng's ESG rating was selected as the measure of ESG performance. This article uses the comprehensive ESG score.

#### 3.2.2 Institutional Investor Shareholding (IO)

It refers to the ratio of the number of enterprise shares held by institutional investors to the total number of enterprise shares.

#### 3.2.3 Internal Control (IC)

A batch of Dibo database internal control indicators are used as slow indicators of internal control quality to perform data processing on physical data.

#### 3.2.4 Control variables

Leverage ratio (Lev), board independence (Inde), Cash level (Cash), ownership concentration (Top1), investment opportunity (TobinQ), and board size (Bsize) are selected as control variables.

### 3.3 Research model design

So as to testify the impact of institutional investor shareholding on corporate ESG performance, model (1) is established. The model is as follows:

$$ESG = \beta_0 + \beta_1 IO + \beta_2 Lev + \beta_3 Inde + \beta_4 Cash + \beta_5 Top1 + \beta_6 TobinQ + \beta_7 Bsize + \sum Ind + \sum Year + \varepsilon \quad (1)$$

Models (2) and (3) are established to testify the mediating effect of internal controls on institutional investors' shareholding and corporate ESG performance.

$$IC = \beta_0 + \beta_1 IO + \beta_2 Lev + \beta_3 Inde + \beta_4 Cash + \beta_5 Top1 + \beta_6 TobinQ + \beta_7 Bsize + \sum Ind + \sum Year + \varepsilon \quad (2)$$

$$ESG = \beta_0 + \beta_1 IO + \beta_2 IC + \beta_3 Lev + \beta_4 Inde + \beta_5 Cash + \beta_6 Top1 + \beta_7 TobinQ + \beta_8 Bsize + \sum Ind + \sum Year + \varepsilon \quad (3)$$

## 4 Empirical test and analysis

### 4.1 Descriptive statistics

Table 1 shows minimum value of ESG is 41.19 and the maximum value is 90.93. The average value is 73.17. The minimum shareholding ratio (IO) of institutional investors is 0.268%, and maximum is 92.45%.

**Table 1.** Descriptive statistics of main variables

variable	N	mean	sd	min	p50	max
ESG	13741	73.17	5.614	41.19	73.50	90.93
IO	13741	43.05	25.45	0.268	44.17	92.45
IC	13741	6.470	0.153	4.749	6.496	6.847
Lev	13741	0.419	0.193	0.0600	0.413	0.867
Inde	13741	37.76	5.430	33.33	36.36	57.14
Cash	13741	0.0510	0.0640	-0.132	0.0490	0.239
Top1	13741	33.10	14.65	8.260	30.75	73.82
TobinQ	13741	2.131	1.370	0.857	1.698	8.780
Bsize	13741	8.435	1.624	5	9	14

#### 4.2 Regression analysis

In column (1) of Table 2, the coefficient between institutional investor shareholding ratio (IO) and ESG performance of enterprises is 0.015, shows that institutional investor shareholding can greatly accelerate the improvement of ESG performance of enterprises.. Column (2) tested the impact of institutional investors' shareholding ratio to internal control of enterprises, and coefficient of both was 0.001, indicating that institutional investors' shareholding could significantly accelerate the improvement on internal control level. Column (3) Its coefficient of institutional investors' shareholding ratio is 0.09, so it has the basis for testing the mediating effect of internal control. The coefficient of internal control is 10.104, indicating that internal control plays an intermediary role in the process of the influence of institutional investors' shareholding on ESG performance of enterprises. Thus results of model (2) and (3) verify hypothesis 2.

Column (2) of Table 3 indicates state-owned enterprises, the shareholding of institutional investors and their ESG performance are correlated at the significance level of 5%, and regression coefficient is 0.0149. Column (3) shows that for other non-state-owned firms, the institutional investors does not significantly affect their ESG presentation. On the contrary, the marginal influence of institutional investor shareholding improving the ESG performance of state-owned enterprises is greater. This conclusion strongly supports hypothesis 3.

**Table 2.** Regression results of intermediate effects of internal control

	(1)	(2)	(3)
	ESG	IC	ESG
IO	0.015*** (0.002)	0.001*** (0.000)	0.009*** (0.002)
IC			10.104*** (0.284)
LEV	-3.449***	-0.050***	-2.944***

	(0.260)	(0.007)	(0.250)
DDR	0.123***	0.001***	0.114***
	(0.009)	(0.000)	(0.009)
CF	2.551***	0.109***	1.450***
	(0.467)	(0.013)	(0.449)
Top1	0.020***	0.001***	0.013***
	(0.004)	(0.000)	(0.003)
Q	-0.071***	0.002***	-0.089***
	(0.020)	(0.001)	(0.019)
Bsize	0.352***	0.004***	0.309***
	(0.033)	(0.001)	(0.032)
_cons	62.005***	6.347***	-2.128
	(0.746)	(0.021)	(1.939)
N	13741	13741	13741
r2	0.088	0.042	0.161
r2_a	0.086	0.040	0.159

**Table 3.** Regression results of intermediate effects of internal control

	(1)	(2)	(3)
	ESG	ESG	ESG
IO	0.0150***	0.0149 **	0.0023
	(6.7705)	(0.0067)	(0.0134)
Lev	-3.5265***	-2.9930***	-3.0045***
	(-13.1692)	(-11.7106)	(-11.7646)
Inde	0.1331***	0.1241***	0.1256***
	(13.6002)	(13.1951)	(13.3593)
Cash	8.5866***	6.3165***	6.1925***
	(11.8002)	(9.0261)	(8.8484)
Top1	0.0185***	0.0184***	0.0183***
	(5.1862)	(5.9954)	(5.9788)
TobinQ	-0.3729***	-0.3354***	-0.3317***
	(-10.0336)	(-9.4898)	(-9.3825)
Bsize	0.3560***	0.3372***	0.3326***

	(10.2400)	(10.1731)	(10.0369)
_cons	62.0267***	-1.8165	20.6052**
	(80.6514)	(-0.9367)	(2.4551)
<i>N</i>	13741	13741	13741
adj. <i>R</i> <sup>2</sup>	0.096	0.165	0.166

## 5 Conclusions

This article selects A-share listed companies from 2013 to 2021 as the research object to probe the connection between institutional investor shareholdings, internal controls and company ESG performance. Study results indicate that institutional investor shareholding can significantly accelerate the improvement of corporate ESG performance, and corporate internal control plays an intermediary role in the relationship between institutional investors and ESG performance. At the same time, it was also discovered that institutional investor shareholdings have a more significant positive impact on the ESG performance of state-owned enterprises.

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