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Research on the Impact of Equity Check and Balance on Corporate Value Based on the Mediating Effect of Corporate Social Responsibility

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Abstract. By the methods of mediating variables, select 2011 - listed companies released in the 2016 Corporate Social Responsibility Report as a research sample, the empirical research Shareholdres social responsibility and ultimately the role of mediating effect on firm value. The regression results show that social responsibility plays a part of the intermediary effect in the impact of equity checks and balances on corporate value, that is, a certain degree of equity checks and balances can promote enterprises to fulfill their social responsibilities, thereby enhancing corporate value.

1. Introduction

With the continuous development of the social economy, the call for enterprises to assume social responsibility is growing, and the positive impact on fulfilling the social responsibility of stakeholders makes the company pay more attention to social responsibility. At the same time, as an important part of corporate governance, equity checks and balances will not only affect the distribution of control rights and resource allocation, but also affect the operational mechanism of corporate governance, thus playing a decisive role in the implementation of social responsibility, affecting the overall operation of the enterprise. And ultimately the value of the business. Therefore, this paper analyzes the relationship between equity checks and balances, social responsibility and corporate value of listed companies by using listed companies that formally publish social responsibility reports.

2. Theoretical analysis

2.1 Section headings

The balance of stocks mainly refers to the checks and balances between shareholders, mainly to resolve the principal-agent relationship between the major shareholders and the small and medium-sized shareholders under the separation of the two powers. In the case of information asymmetry, the majority shareholder has more accurate information about the company than the minority shareholders. This provides the major shareholder with the opportunity to use his rights to infringe the interests of the minority shareholders, and the equity balance makes the number of shareholders of the company. Increase, the number of people participating in enterprise decision-making will increase accordingly, and it will be able to better supervise major shareholders on major issues affecting the interests of small and medium-sized shareholders, prevent the phenomenon of “tunneling” and effectively inhibit the infringement of the interests of other shareholders by major shareholders. Conducive to the improvement of corporate value, based on the above analysis, in terms of equity checks and balances and corporate value, this paper puts forward the following assumptions:

H1: Positive correlation between equity checks and balances and corporate value

Secondly, the higher the degree of equity checks and balances, the more balanced the shareholding ratio between the major shareholder and other shareholders, the stronger the influence of the external shareholder relative to the controlling shareholder, the stronger the motivation and ability of the supervisor, and the better the company will be. Social Responsibility. At the same time, equity checks and balances can not only supervise the decision-making of the first major shareholder, but also have a certain restraining effect on the management, thus reducing the possibility that the two associations harm the stakeholders of the enterprise and help to improve the performance level of corporate social responsibility. Based on the above analysis, in terms of equity checks and balances and social responsibility, this paper proposes the following assumptions:

H2: Positive correlation between equity checks and balances and social responsibility

At the same time, according to the previous analysis, it can be seen that the balance of equity makes the supervision and decision-making participation of small and medium-sized shareholders increase, protects the interests of stakeholders from damage, and promotes the active implementation of social responsibility. From the perspective of stakeholder theory, the survival and development of enterprises are closely related to the participation and support of stakeholders. By actively fulfilling social responsibilities and making disclosures, we can deliver good news to stakeholders and build a good corporate image and reputation, so that enterprises can obtain external resources, gain competitive advantage and enhance corporate value. Based on the above analysis, in terms of equity checks and balances, social responsibility and corporate value, this paper proposes the following assumptions:

H3: Social responsibility plays a mediating role in the relationship between equity checks and balances and corporate value

3. Research design

3.1 Sample selection and data source

This paper selects the listed companies that disclose social responsibility reports from Shanghai and Shenzhen in 2011-2016 as research samples, and excludes ST and ST* companies and listed companies with incomplete financial data disclosure or abnormal data within the time range, and finally obtains effective observations. 491 homes. The internal control data for this study was from the DIB internal control and risk management database, and other data were from the CSMAR database.

3.2 Variable definition

Table 1. Variable Design

Variable	Name	Variable description
Equity checks and balances	DR	The ratio of the shareholding ratio of the second largest shareholder to the fifth largest shareholder and the shareholding ratio of the largest shareholder
Social responsibility	CSR	Responsibility Reports Rating Resources
Corporation value	Tobin's Q	The ratio of the company's market value to the cost of asset replacement
Company size	SIZE	Measured by the natural logarithm of the company's total assets
Financial leverage	LEV	Use the asset-liability ratio to measure
Business growth	GROWTH	Use business revenue growth rate to describe business growth
Nature of property	SOE	If it is a state-owned enterprise, it is 1, otherwise it is 0.
Industry	INDUSTRY	Virtual variable, if it belongs to industry, it is 1, otherwise it is 0.
Year	YEAR	Virtual variable, if it belongs to year, it is 1, otherwise it is 0.

3.3 Model construction

Based on the combing of the existing literature, based on the previous research results, this paper constructs the following model to empirically verify the hypothesis. To test the impact of equity checks and balances on corporate value, build a model one:

$$\text{Tobin's Q}_{\text{it}} = \beta_0 + \beta_1 DR_{\text{it}} + \beta_2 SIZE_{\text{it}} + \beta_3 LEV_{\text{it}} + \beta_4 GROWTH_{\text{it}} + \beta_5 SOE_{\text{it}} + \beta_6 INDUSTRY_{\text{it}} + \beta_7 YEAR_{\text{it}} + \varepsilon_1$$

In order to test the impact of equity checks and balances on the social responsibility of intermediary variables, model 2 is constructed:

$$CSR_{\text{it}} = \beta_0 + \beta_1 DR_{\text{it}} + \beta_2 SIZE_{\text{it}} + \beta_3 LEV_{\text{it}} + \beta_4 GROWTH_{\text{it}} + \beta_5 SOE_{\text{it}} + \beta_6 INDUSTRY_{\text{it}} + \beta_7 YEAR_{\text{it}} + \varepsilon_2$$

Introduce social responsibility of intermediary variables, test the relationship between equity checks and balances, social responsibility and corporate value, and build model three:

$$\text{Tobin's Q}_{\text{it}} = \beta_0 + \beta_1 CSR_{\text{it}} + \beta_2 DR_{\text{it}} + \beta_3 SIZE_{\text{it}} + \beta_4 LEV_{\text{it}} + \beta_5 GROWTH_{\text{it}} + \beta_6 SOE_{\text{it}} + \beta_7 INDUSTRY_{\text{it}} + \beta_8 YEAR_{\text{it}} + \varepsilon_3$$

4. Empirical Research

4.1 Descriptive statistics

Table 2. Descriptive statistics

Variable	N	Mean	Standard deviation	Minimum	Maximum
Tobin's Q	2455	1.921897	1.376005	0.710961	30.67441
CSR	2455	42.70736	13.08621	16.95518	89.2979
DR	2455	0.6302447	0.6055896	0.0081911	3.616487
SIZE	2455	23.53159	1.863678	19.54107	30.81478
LEV	2455	0.5293158	0.216806	0.007969	1.351834
GROWTH	2455	0.1326686	0.8822003	-0.687207	39.81249
SOE	2455	0.6741344	0.4687928	0	1

As can be seen from Table 2, the minimum value of enterprise value is 0.710961, the maximum value is 30.67441, the average value is 1.921897, and the standard deviation is 1.376005, indicating that the overall level of corporate value of sample companies is generally different. The minimum social responsibility is 16.95518, the maximum value is 89.2979, the average value is 42.70736, and the standard deviation is 13.08621. This indicates that there is still a large room for improvement in the performance of the sample company's social responsibility, and there is a big difference in the performance of different companies. The minimum value of the equity balance is 0.0081911, the maximum value is 3.616487, and the average value is 0.6302447, indicating that the listed company's equity checks and balances are weak. The minimum size of the company is 19.54107, the maximum value is 30.81478, and the standard deviation is 1.863678, indicating that the sample companies differ in scale. The average asset-liability ratio is 0.5293158, indicating that the sample company's average debt level is moderate. The minimum growth rate of operating income is -0.687207, and the maximum value is 39.81249, indicating that the sample companies may have large differences in the growth of the company due to the different industries.

4.2 Regression test and result analysis

When processing panel data, an F-test is first performed to determine whether a mixed regression or fixed-effects model should be used. The results show that the F-test p value is 0.0000, which is significant, thus rejecting the null hypothesis, FE is superior to mixed regression. A Hausmann test is then performed to determine whether a fixed or random effect is used. The results show that the p-value is 0.0000, so the rejection of the null hypothesis should use a fixed-effects model rather than a random-effects model. The results of the fixed effect regression are as follows:

Table 3. Table of fixed effect regression results

	Model one	Model one	Model one
Dependent variable	Tobin's Q	CSR	Tobin's Q
CSR			0.0137633^{***} (4.32)
DR	0.156811^{***} (2.58)	1.959312^{***} (3.05)	0.1299145^{***} (2.12)
SIZE	-0.2072074^{***} (-7.19)	4.948811^{***} (16.47)	-0.2753194^{***} (-8.59)
LEV	-1.659032^{***} (-6.87)	-10.5813^{***} (-4.52)	-1.513399^{***} (-6.44)
GROWTH	0.1446411 (1.26)	0.1179342 (0.48)	0.1430179 (1.22)
SOE	-0.22586341^{***} (-2.94)	-0.0172669 (-0.02)	-0.2583964^{***} (-2.99)
YEAR	control	control	control
INDUSTRY	control	control	control
CONTANT	7.732262^{***} (12.81)	-69.38406^{***} (-11.27)	8.687215^{***} (13.59)
OBSERVATIONS	2455	2455	2455
R-squared	0.2796	0.3936	0.2900
F	48.26	69.23	42.58

It can be seen from Table 3 that the model R square is 0.2796, and the p value is 0.0000 in the F test, indicating that the model is significant, the regression equation fits well, and the equity balance DR is at the 1% significance level and the enterprise value Tobin's Q. There is a positive correlation; the model R is 0.3936, and the p-value is 0.0000 in the F test, indicating that the model is significant, the regression equation has a good fit, and the equity balance DR is positively correlated with the social responsibility CSR at the 1% significance level. The model R square is 0.2900, and the p value is 0.0000 in the F test, indicating that the model is significant, and the regression equation has a good fit. After adding the intermediary variable social responsibility, the equity balance DR is at the level of 1% significance and the enterprise value. Tobin's Q is positively correlated, and social responsibility CSR is positively correlated with corporate value Tobin's Q at a 1% significance level.

Using the median effect test method proposed by Zhong-lin Wen (2014), the mediation effect is tested. From the test results in Table 3, the regression coefficient of social responsibility and corporate value as a mediator variable is 0.0113733, and the significance test of 1% level is passed, that is, the coefficient c is significant, indicating that the mediating effect of social responsibility exists. Next, the coefficients a, b and c' are tested according to the inspection procedure of the mediation effect. In the second model, the equity balance and the social responsibility are significantly positively correlated at the level of 1%. The coefficient a is 1.959312. The social responsibility and enterprise value in the model three There is a significant positive correlation at the 1% level, the coefficient b is 0.0113733, and the social responsibility is significantly positively correlated with the enterprise value at the level of 1%, then the coefficient c' is 0.1299145, at which time ab is the same as c', so This paper argues that social responsibility has a partial mediating effect on equity checks and balances and corporate value. The ratio of mediating effects to total effects is calculated by calculating ab/(ab+c') to be 17.19%.

4.3 Robustness test

Through the previous empirical analysis, the three models established in this paper are analyzed. For the reliability of the verification results, the regression model is tested for robustness by replacing the main variables, and the equity balance is measured under the condition that other variables are unchanged. The S index replaces the Z index to regress the model. After the replacement, the correlation between the main variables in the model and the variables being interpreted and the level of significance are basically the same. Since the previous model-based regression results have been correlated, they are not described here.

5. Conclusion

The paper selects the listed companies that officially released the social responsibility report in 2011-2016 as the research sample, and takes the social responsibility as the research perspective, empirically analyzes the relationship between equity checks and balances, social responsibility and corporate value, and social responsibility to equity checks and balances and enterprises. The mediating effect of value. The specific conclusions are as follows: (1) Equity checks and balances are significantly and positively related to social responsibility and corporate value, that is, under the condition that other established factors remain unchanged, the equity balance can increase the value of the enterprise. (2) Equity checks and balances are significantly and positively related to corporate social responsibility, that is, equity checks and balances are beneficial to improve the level of corporate social responsibility performance to a certain extent. (3) Corporate social responsibility plays a partial intermediary effect between equity checks and balances and corporate value, that is, reasonable equity checks and balances can promote enterprises to actively fulfill their social responsibilities and thus enhance corporate value.

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