Media Coverage, Ownership Nature and Debt Financing Costs of Listed Companies

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Abstract

Based on the theories of reputation and asymmetric information, we use 5988 sample data of firms listed in Shenzhen and Shanghai stock exchanges in the period 2010-2014 and apply Heckman two-stage model to empirically test the impact mechanism of media coverage on debt financing costs of listed companies. We explore the impact of media coverage on the debt financing costs of the listed companies under different ownership nature. The results show that, media coverage has a significant impact on debt financing costs of listed companies, in which, positive media coverage reduces company's debt financing costs while negative media coverage increases the company's debt financing costs. Media coverage has a different impact on debt financing costs of listed firms with different nature of ownership. Specifically, with respect to state-owned enterprises, the impact of media coverage on easing debt financing costs is more apparent on non-state-owned enterprises. While with respect to non-state-owned enterprises, the impact of media coverage on increasing debt financing costs is more apparent on state-owned enterprises.

Keywords: Media Coverage; Debt Financing Costs; Ownership Nature; Heckman Two-stage Model.

1. Introduction

As an important source of capital for enterprise, debt financing has been deeply concerned by theory and practice fields (Baber, et al.2013). Theory and practice fields are also finding the ways of decreasing the cost of debt financing actively and they have achieved abundant research results. Present literature and research are mainly from the perspective of firm characteristics, macro environment and corporate governance (Bradley and Chen, 2011; Richardson and Welker, 2001; Qian and Strahan, 2007). But few literature and research discuss the impact of the media on cost of debt financing in listed companies from the perspective of media, which is a unique informal institution. Under the catalysis of the information age, the impact of media on the management and decision-making in listed companies is increasingly important. As an important supervision power in capital market, the media plays an irreplaceable roles in corporate governance, such as improving deficiencies of corporate governance (Cumming, et al.2016), enhancing corporation's performance (Liu and McConnell,2013), and disclosing financial fraudulence(Miller,2006). The media can play an important role of information intermediary. Fang and Peress's (2009) research finds that media's coverage can reduce information friction. Tetlock (2010) finds that media also plays an important role in reducing information asymmetry between companies and investors. Banks and other financial institutions have been monitoring the news report of the loan enterprise. They release enterprises' negative reports and other external information in the system in real time in order to help loan department control credit risk timely. But there are not any researches in theory fields concerning the impact of media coverage on cost of debt financing in listed companies. Based on this, this paper will explore how the favorable media coverage and unfavorable media coverage can influence cost of debt financing in listed companies. We hope we can contribute to the research on media coverage's effect on debt contract.

2. Literature review and hypothesis development

Our research argues that media coverage may affect the cost of debt financing by the following two ways:

Firstly, media coverage can influence the cost of debt financing by the reputation of listed companies. In the credit market, a good reputation may have a significant impact on debt financing. It can provide an implicit contract to the capital supplier. Enterprise with a high reputation often has a lower default rate. And capital supplier often provides a lower interest. Positive media coverage can help enterprise create a good social reputation, and it is beneficial to obtain low-cost debt financing. Compared with enterprise which has favorable media coverage, enterprise which has unfavorable media coverage will damage their reputation invisibly. It caused a decrease of negotiation capability when financing. Enterprise must pay a premium as compensate for unfavorable media coverage. Secondly, Media coverage influences enterprises' cost of debt financing by reducing information asymmetry. Information asymmetry is an important factor of debt financing contracts. Information asymmetry between creditors and debtors may lead to the moral hazard and adverse selection in the process of fulfilling the debt contract. Tetlock (2010) finds that media coverage of listed companies can effectively resolve information asymmetry between insiders and outsiders. Enterprise which media would pay more attention to tend to have lower degree of information asymmetry between its creditors. In this case the creditor has a more profound understanding of the enterprise. Compared with enterprise which has favorable media coverage, enterprise which has unfavorable media coverage often has a higher moral hazard. Debt contract between the creditor and the debtor is facing more uncertainty. In this case, in order to safeguard their interests. Creditors will often require the debtor to pay a rate above the market average rate. This part of the premium is primarily used to hedge moral hazard and uncertainties. Therefore, this paper argues that unfavorable media coverage will increase the cost of debt financing for enterprises. Based on this, we propose the following hypotheses:

Hypothesis 1: Favorable media coverage and debt financing costs of listed companies are negative related.

Hypothesis 2: Unfavorable media coverage and debt financing costs of listed companies are positive related.

Compared with non-state-owned enterprises，state-owned enterprises has a unique advantage over the debt financing, especially in bank credit. In economy transitional countries, credit discrimination is widespread. It is difficult for private enterprises to get the fair treatment in credit market from financial institutions. Cull and Xu(2005) find that state-owned banks take more care of the enterprises which has a good relationship with the government. Therefore, this paper notes that the nature of ownership plays a huge role in the relationship between the cost of debt financing and media coverage. Due to the credit discrimination, the cost of debt financing is quite different between non-state-owned enterprises and state-owned enterprises. Cost of debt financing in non-state-owned enterprises is often higher than that in the state-owned enterprises. Favorable media coverage of non-state-owned enterprises is more helpful than state-owned enterprises. At this time the favorable media coverage can reduce risk of defaulting debt more effectively than the non-state-owned enterprises'. The result is that the degree of favorable media coverage of non-state-owned enterprises reducing the cost of debt financing is greater than the degree of state-owned enterprises reducing the cost of debt financing. Similarly, the impact of unfavorable media coverage on state-owned enterprises is more serious than the impact on non-state-owned enterprises. The reason is that the special status of the state-owned enterprises enlarges the influence of unfavorable media coverage. Unfavorable media coverage will have an important impact on of financial institutions and its credit decisions. Considering the public opinion, the financial institutions will increase the cost of debt financing. Compared with non-state-owned enterprises, the impact of unfavorable media coverage on cost of debt financing in state-owned enterprises is more sensitive. Therefore, the degree of unfavorable media coverage of state-owned listed companies increasing cost of debt financing will be greater than the degree of non-state-owned enterprises. Based on this, we propose the following hypotheses:

Hypotheses 3: Compared with state-owned listed companies, the impact of favorable media coverage on reducing cost of debt financing is more significantly on non-state-owned enterprises.

Hypotheses 4: Compared with non-state-owned listed companies, the impact of unfavorable media coverage on increasing cost of debt financing is more significantly on state-owned enterprises.

3. Sample and research design

3.1 Sample

This paper selects the data of A-share companies listed on Shanghai and Shenzhen stock exchanges in the period 2010-2014 as the research object, in order to ensure the reliability of the results, we conduct the following screening: First, delete the ST or *ST listed companies by SFC; Second, delete financial listed companies; Third, delete missing financial data, corporate governance data of listed companies. The final sample is 5988. The study

which relates to the financial data all come from Chinese financial database of Wind, corporate governance data from the sharp financial database, media coverage data mainly collected from China important Newspaper Database.(Hereinafter referred to as CCND)

3.2 Variable definitions and measurement

3.2.1 Dependent variables

Cost of debt financing: we use the following model to measure *COD1* and *COD2*:

COD1= (interest payment + commission charge + other financial expenses)/ the average annual debt.

COD2= (interest payment + capitalization interest)/ the average annual debt

3.2.2 Explanatory variables

Media coverage MC: This paper use CNKI China important Newspaper Database as newspaper-based media data sources, according to the listed company stock code to collect manual data and judge the nature of the news reports. Favorable newspaper media coverage *MCP* is the annual number of favorable media coverage plus 1 and takes it the natural logarithm in CNKI China important Newspaper Database. Unfavorable newspaper media coverage *MCN* is the annual number of unfavorable media coverage plus 1 and takes it the natural logarithm in CNKI China important Newspaper Database.

The nature of ownership: according to the nature of ownership of listed companies, this paper design the ownership of dummy variable *PR*, when the enterprise is state-owned ownership, *PR* is equal to 1, or *PR* is equal to 0. At the same time, this paper also design the cross term $MC \times PR$ between media coverage and the nature of ownership, it is mainly to investigate media coverage has a different impact on debt maturity structure of listed firms with different nature of ownership.

3.2.3 Control variables

Referring to the related research from Huang et al(2016), González(2015)、Ben-Nasr et al(2015), this paper selects the enterprise scale, profitability, cash flow ability, agency cost, the audit institution type, equity concentration, growth ability, the scale of the board of directors, proportion of independent directors and the scale of the board of supervisors, the annual dummy variables and industry dummy variables. The specific variables are defined as shown in table 1.

4. Methodology

In the field of media management, scholars have been plagued by the problem of endogenous. Heckman (1979) proposed the famous two-step estimation method, because its operation simple and does not rely on the normality assumption; it has gradually become the most popular method of solving sample selection bias. Based on the Heckman two-stage model, this paper constructs this model:

This paper builds the following model to test the impact mechanism of favorable media coverage on cost of debt financing listed companies:

The first stage, construct Probit estimation equation of newspaper media monitoring, estimating the inverse Mills ratio IMR.The details are as follows:

$$DMC_{it} = \alpha_0 + \alpha_1 Size_{it} + \alpha_2 ROE_{it} + \alpha_3 Lev_{it} + \alpha_4 Value_{it} + \alpha_5 Q_{it} + \alpha_6 GA_{it} + \alpha_7 EPS_{it} + \alpha_8 DPS_{it}$$
$$+ \alpha_9 AO_{it} + \alpha_{10} BD_{it} + \alpha_{11} ID_{it} + \alpha_{12} BS_{it} + \alpha_{13} EC_{it} + \alpha_{14} Year_{it} + \alpha_{15} Industry_{it} + \varepsilon \quad (1)$$

Among them, *DMC* is two dummy variables of media coverage. When the variable of media coverage(*MCP* or *MCN*) is greater than median, the value is 1, otherwise 0.Control variables include firm size *Size*, profitability *ROE*, asset liability rate *Lev*, the company value *Value*, Tobin's *Q*, growth capability *GA*, dividend per share *EPS*, audit opinion *AO*, the scale of the board of directors *BD*, proportion of independent directors *ID*, the scale of the board of supervisors *BS*, ownership concentration *EC*, the annual dummy variables *Year* and *industry* dummy variables Industry.

Table 1. Variable definitions and measures

Types	Variables	Symbols	Definitions and measurement
Dependent variable	Debt Financing Costs	COD1	(interest payment + commission charge + other financial expenses)/ the average annual debt
		COD2	(interest payment + capitalization interest)/ the average annual debt
Explanatory variable	Media coverage	MC	Including favorable media coverage MCP and unfavorable media coverage MCN
	Favorable media coverage	MCP	The annual number of favorable media coverage plus 1 and take it the natural logarithm in CCND
	Unfavorable media coverage	MCN	The annual number of unfavorable media coverage plus 1 and take it the natural logarithm in CCND
	Ownership Nature	PR	Dummy variable, when the enterprise is state-owned ownership, PR is equal to 1, or PR is equal to 0
Control variable	Enterprise scale	Size	the natural logarithm of total assets
	Profitability	ROE	Return on net assets
	Cash flow ability	CF	Net operating cash flow / total assets
	Agency cost	AC	Other receivables / total assets
	The audit institution type	BIG4	Dummy variable, when the audit institution for the international top four accounting firms, BIG4 is equal to 1, or BIG4 is equal to 0
	Equity concentration	EC	The proportion of the first largest shareholder
	Growth ability	GA	increase rate of business revenue
	The scale of the board of directors	BD	Natural logarithm of the total number of the board of directors
	proportion of independent directors	ID	The ratio of independent directors to the total number of the board of directors
	The scale of the board of supervisors	BS	Natural logarithm of the total number of the board of supervisors
	Annual dummy variables	Year	Control the annual macroeconomic impact, set 4 annual dummy variable
	Industry dummy variables	Industry	Control industry factors, according to the Commission in 2012 the new industry classification guidelines, set 17 industry dummy variables

The second stage, use the inverse Mills ratio IMR as control variable into the specific test mode. Investigate the impact mechanism of the media coverage on the cost of debt financing in listed companies.

$$COD_{it} = \beta_0 + \beta_1 MCP_{it} + \beta_2 Size_{it} + \beta_3 ROE_{it} + \beta_4 CF_{it} + \beta_5 AC_{it} + \beta_6 BIG4_{it} + \beta_7 EC_{it} + \beta_8 GA_{it}$$
$$+ \beta_9 BD_{it} + \beta_{10} ID_{it} + \beta_{11} BS_{it} + \beta_{12} IMR_{it} + \beta_{13} Year_{it} + \beta_{14} Industry_{it} + \sigma \tag{2}$$

$$COD_{it} = \delta_0 + \delta_1 MCN_{it} + \delta_2 Size_{it} + \delta_3 ROE_{it} + \delta_4 CF_{it} + \delta_5 AC_{it} + \delta_6 BIG4_{it} + \delta_7 EC_{it} + \delta_8 GA_{it}$$
$$+ \delta_9 BD_{it} + \delta_{10} ID_{it} + \delta_{11} BS_{it} + \delta_{12} IMR_{it} + \delta_{13} Year_{it} + \delta_{14} Industry_{it} + \tau \tag{3}$$

Among them, COD is the cost of debt financing in i company in t years. It include COD1 and COD2.

At the same time, to investigate unfavorable media coverage has a different impact on the cost of debt financing in listed companies under different ownership nature, this paper also constructs the test model as follows:

$$COD_{it} = \chi_0 + \chi_1 MCP_{it} + \chi_2 MCP_{it} \times PR_{it} + \chi_3 PR_{it} + \chi_4 Size_{it} + \chi_5 ROE_{it} + \chi_6 CF_{it} + \chi_7 AC_{it} + \chi_8 BIG4_{it}$$
$$+ \chi_9 EC_{it} + \chi_{10} GA_{it} + \chi_{11} BD_{it} + \chi_{12} ID_{it} + \chi_{13} BS_{it} + \chi_{14} IMR_{it} + \chi_{15} Year_{it} + \chi_{16} Industry_{it} + \zeta \tag{4}$$

$$COD_{it} = \phi_0 + \phi_1 MCN_{it} + \phi_2 MCN_{it} \times PR_{it} + \phi_3 PR_{it} + \phi_4 Size_{it} + \phi_5 ROE_{it} + \phi_6 CF_{it} + \phi_7 AC_{it} + \phi_8 BIG4_{it}$$
$$+ \phi_9 EC_{it} + \phi_{10} GA_{it} + \phi_{11} BD_{it} + \phi_{12} ID_{it} + \phi_{13} BS_{it} + \phi_{14} IMR_{it} + \phi_{15} Year_{it} + \phi_{16} Industry_{it} + \upsilon \quad (5)$$

Among them, $MCP_{it} \times PR_{it}$ is the cross term for favorable media coverage and ownership nature, $MCN_{it} \times PR_{it}$ is the cross term for unfavorable media coverage and ownership nature.

5. Empirical results and analysis

5.1 Summary statistics

From descriptive statistics results in table 2, we can see that average for $COD1$ is 0.064, while the average for $COD2$ is 0.059, indicating that the enterprise's debt financing costs is about 6%. At the same time, we find that some sample's debt financing costs is 0, that maybe because that there is no need for the enterprise of debt financing in that year. The average value of the favorable media coverage MCP is 0.731, and the average value of the unfavorable media coverage MCN is 0.189. Because media coverage is the annual number of media coverage plus 1 and take it the natural logarithm, so we need to analysis the original data of media coverage to be aware of the condition of media coverage in real economic life. Statistics found that every listed company are reported in the newspaper every year by the number of 14.212 times, the number of favorable media coverage is 3.166, while the number of unfavorable media coverage is only 1.360 in our country. The average value of the property right PR is 0.660, indicating that the data selected by this paper has 66% listed companies are state-owned property rights, this is mainly because existing listed companies in our country are mostly restructured by original state-owned companies. At the same time, in order to ensure that there is no multiple linear problems between the main variables of this paper, this paper also carries out the Pearson correlation test and Spearman correlation test. Test results show that there is a serious collinearity problem between main variables. Limited space, this paper does not list the correlation test results.

Table 2. Summary statistics

Variables	Mean	Median	S.D.	Min.	Max.
DMS1	0.304	0.168	0.338	0.000	1.000
DMS2	0.271	0.115	0.103	0.000	0.730
DMS3	0.119	0.048	0.160	0.000	0.859
MCP	0.731	0.693	0.782	0.000	4.564
MCN	0.189	0.000	0.404	0.000	2.996
PR	0.660	1.000	0.474	0.000	1.000
Size	22.316	22.185	1.425	13.076	28.509
ROE	0.059	0.072	0.953	-54.809	4.485
CF	0.036	0.038	0.181	-11.056	2.457
AC	0.797	0.643	0.698	0.000	9.689
BIG4	0.087	0.000	0.282	0.000	1.000
EC	0.160	0.117	0.135	0.000	0.799
GA	0.244	0.099	5.097	-1.000	367.532
BD	2.521	2.485	0.306	1.386	3.738
ID	0.347	0.333	0.097	0.000	0.750
BS	1.610	1.609	0.447	0.000	3.045

5.2 Media coverage and debt financing costs

Table 3is the regression results of the impact of favorable media coverage on debt financing costs. On the one hand, favorable media coverage and the debt financing costs of listed companies. Seen from the he regression results of the table, the favorable media coverage MCP have a significant negative correlation with listed companies' debt financing costs $COD1$ at the level of 0.01, and the influence coefficient is-0.007. It can be illustrated that the favorable media coverage can help companies to decrease enterprise's debt financing costs, then the research hypothesis 1 of this paper was confirmed. In addition, we can learn by the result taken $COD2$ as proxy variable of debt financing costs, the favorable media coverage MCP have a significant negative correlation with listed companies' debt financing costs $COD2$ at the level of 0.05, and the influence coefficient is-0.002.the results support the above conclusions, which can be further illustrate that the conclusion of the study is reliable. On the other hand, unfavorable media coverage and the

debt financing costs of listed companies. The unfavorable media coverage *MCN* has a significant positive correlation with listed companies' debt financing costs *COD1* at the level of 0.01, and the influence coefficient is0.010. It can be illustrated that the unfavorable media coverage can help companies to increase enterprise's debt financing costs, then the research hypothesis 2 of this paper was confirmed. In addition, the unfavorable media coverage *MCN* have a significant positive correlation with listed companies' debt financing costs *COD2* at the level of 0.05, and the influence coefficient is0.004. The results can illustrate that the conclusion of the study is reliable. The research hypothesis 2 of this paper was confirmed. It is worth noting that the regression coefficient of Inverse Mills Ratios(*IMR*) of all the regression analysis in table 4 are not significant, this means that there are not sample self-selection problems in this research, which can illustrate that the conclusion of the study is reliable.

Table 3. Regression results of Heckman model

| Variables | COD1 | | COD2 | |
	MCP	MCN	MCP	MCN
Constant	0.285*** (5.762)	0.293*** (5.904)	0.206*** (4.150)	0.209*** (4.201)
MC	-0.007*** (-3.846)	0.010*** (4.162)	-0.002** (-2.291)	0.004** (2.521)
Size	-0.011*** (-5.755)	-0.011*** (-5.781)	-0.008*** (-4.057)	-0.008*** (-4.077)
ROE	-0.025*** (-3.588)	-0.025*** (-3.646)	-0.023*** (-3.294)	-0.023*** (-3.320)
CF	-0.061*** (-4.056)	-0.060*** (-4.043)	-0.007 (-0.473)	-0.007 (-0.481)
AC	0.010*** (5.393)	0.010*** (5.422)	0.005** (2.591)	0.005** (2.599)
BIG4	0.007* (1.953)	0.007* (1.952)	0.011*** (3.048)	0.011** (3.041)
EC	-0.007 (-0.765)	-0.007 (-0.788)	-0.020** (-2.168)	-0.021* (-2.178)
GA	-0.001 (-0.937)	-0.001 (-0.904)	-0.002 (-1.108)	-0.002 (-1.097)
BD	0.001 (0.165)	0.000 (0.091)	0.002 (0.480)	0.002 (0.448)
ID	0.017 (1.444)	0.017 (1.455)	0.013 (1.138)	0.013 (1.139)
BS	-0.005* (-1.820)	-0.005* (-1.825)	-0.001 (-0.362)	-0.001 (-0.362)
IMR	0.005 (0.749)	0.005 (0.734)	0.003 (0.441)	0.003 (0.448)
Year/Industry	Control	Control	Control	Control
Wald Chi2	202.64***	205.35***	74.87***	75.53***
N	5988	5988	5988	5988

Note: ***, **, *,indicate significance at 1%,5%,10%, respectively; T value are shown in brackets; in order to save space, the first stage estimation results of the Probit model are not listed in this paper, but interested readers can

email me for the details.

5.3 Media coverage, ownership nature and debt financing costs

Table 4 investigates the impact of media coverage on the debt financing costs of listed companies under different ownership nature. The cross term of favorable media coverage MCP and property right (*MCP×PR*) have a significant negative correlation with debt financing costs COD1 at the level of 0.05, and the influence coefficient is0.005. on this occasion, when the ownership nature is non-state-owned, the influential effect of favorable media coverage MCP on the debt financing costs of the non-state-owned listed companies was -0.011. While the ownership nature is state-owned, the influential effect of favorable media coverage on the debt financing costs of the state-owned listed companies was -0.006(-0.011+0.005). So, the impact of favorable media coverage MCP on non-state-owned listed company's debt financing costs is bigger, so the research hypothesis 3 of this paper can be verified. It shows that compared with state-owned listed companies, the impact of favorable media coverage on decreasing non-state-owned listed company's debt financing costs is bigger. On the other hand, the cross term of favorable media coverage MCP and property right (*MCP×PR*) have a significant negative correlation with debt financing costs COD2 at the level of 0.1, and the influence coefficient is 0.001, which is cosistent with the above conclusions. On addition, property right respectively has a significant negative correlation with debt financing costs at the level of 0.05 and 0.01, it shows that the debt financing costs of state-owned companies is significantly lower than the non-state-owned.

Table 4. Regression results of Heckman model

Variables	COD1		COD2	
	MCP	*MCN*	*MCP*	*MCN*
Constant	0.276***	0.287***	0.203***	0.207***
	(5.531)	(5.770)	(4.075)	(4.154)
MCP	-0.011***		-0.003*	
	(-3.153)		(-1.901)	
MCP×PR	0.005**		0.001*	
	(-2.340)		(1.765)	
MCN		0.014***		0.005**
		(3.256)		(2.082)
MCN×PR		0.006**		0.002**
		(2.242)		(2.327)
PR	-0.002**	-0.002***	-0.001**	-0.001**
	(-2.447)	(-2.731)	(-2.048)	(-2.358)
Size	-0.011***	-0.011***	-0.008***	-0.008***
	(-5.640)	(-5.667)	(-4.019)	(-4.036)
ROE	-0.026***	-0.026***	-0.023***	-0.023***
	(-3.706)	(-3.757)	(-3.331)	(-3.356)
CF	-0.061***	-0.061***	-0.007	-0.007**
	(-4.100)	(-4.085)	(-0.464)	(-2.470)
AC	0.010***	0.010***	0.005**	0.048***
	(5.372)	(5.403)	(2.592)	(-2.597)
BIG4	0.007**	0.007**	0.011***	0.011***
	(2.020)	(2.017)	(3.068)	(-3.063)
EC	-0.005	-0.006	-0.020**	-0.020**
	(-0.576)	(-0.621)	(-2.103)	(-2.114)
GA	-0.001	-0.001	-0.002	-0.002
	(-0.934)	(-0.904)	(-1.110)	(-1.097)
BD	0.001	0.001	0.002	0.002
	(0.285)	(0.201)	(0.520)	(0.488)
ID	0.018	0.018	0.014	0.014
	(1.504)	(1.514)	(1.156)	(1.158)
BS	-0.004*	-0.004	-0.001	-0.001
	(-1.664)	(-1.652)	(-0.299)	(-0.295)
IMR	0.478***	0.005	3.974***	0.003
	(10.812)	(0.725)	(19.025)	(0.442)
Year/Industry	Control	Control	Control	Control
Wald Chi2	207.33***	209.98***	75.33***	76.06***
N	5988	5988	5988	5988

Note: ***, **, *, indicate significance at 1%,5%,10%, respectively; T value are shown in brackets; in order to save

space, the first stage estimation results of the Probit model are not listed in this paper, but interested readers can email me for the details.

5.4Sensitivity tests

This article mainly take the following two methods of robustness test：On the one hand, we select other measurement method of media coverage. According to CNKI Chinese important newspaper full text database, we take the eight important Finance and economics newspapers which are "China Securities News", "Securities Daily", "Securities Times", "Shanghai Securities News", "the 21st century economy report", "Chinese business newspaper", "economy observes a newspaper", "Financial Times" as the resources of the data of media attention and then we collected and summarized the listed companies' news reports; On the other hand, we remove the noise in the data of media coverage. In the data collection of media coverage, there may be some listed companies did not have the media reports, and then the media coverage variable is 0. The paper has the test again after deleting the samples which media coverage variable is 0. Results from the robustness tests show no significant difference from our previous findings.

6. Conclusion

Debt financing costs is an important factor in debt contract, scholars do a lot of researches on how to decrease enterprise's debt financing costs, which start with company's characteristic factor, macro-environmental factors and corporate governance factor, exploring the factors influencing enterprise's debt financing costs and gaining a certain researching achievement. The paper intends to start with the new angel of media coverage, selecting the firms listed in Shenzhen and Shanghai A-share stock exchanges in the period 2010-2014 as object of study, apply Heckman two-stage model to empirically test the impact mechanism of favorable and unfavorable media coverage on debt financing costs of listed companies, and explore the impact of media coverage on the debt financing costs under different ownership nature. The analysis results of this paper show that: Firstly. favorable media coverage and debt financing costs of listed companies are positive related. That is favorable media coverage can decrease the debt financing costs of a listed company. Secondly, unfavorable media coverage is negatively related to d debt financing costs of listed companies. Unfavorable media coverage can increase the debt financing costs. Thirdly, compared with the state-owned enterprises, the impact of favorable media coverage on decreasing debt financing costs is more apparent on non-state-owned enterprises. Fourthly, compared with the non-state-owned enterprises, the impact of unfavorable media coverage on increasing debt financing costs is more apparent on state-owned enterprises. That is the impact of unfavorable media coverage on increasing debt financing costs is more apparent on non-state-owned enterprises.

In the future studies, we may have the following two questions worth exploring. First, we need to look for the path which media coverage influence corporate debt financing. Because the media does not have ownership of listed companies, the media coverage affect debt financing decision must be achieved through a certain path. This article only explores the impact of media coverage on the mechanism of debt financing, but did not study the role of the media coverage on the path to debt financing. Second, we need to consider the level of financial development. As we all know the level of debt financing decisions and regional financial development have a relatively close relationship, the higher level of financial development can provide a lot of favorable conditions for corporate debt financing. Therefore, future studies could examine the role of financial development between the media coverage and corporate debt financing role.

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