Research on the Relationship between Corporate Social Responsibility and Financial Performance from a Regional Perspective

---Empirical Comparison from Jilin and Heilongjiang, Liaoning and Jiangsu Provinces

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Abstract

In recent years, the research on the correlation between corporate social responsibility (CSR) and financial performance has become a hot topic for researchers at home and abroad, but few researchers have conducted empirical research on regional differences. This article selects 355 companies in Jiangsu Province, 71 companies in Liaoning Province, 35 companies in Jilin Province, and 27 companies listed in Heilongjiang Province in 2014-2018 based on the analysis of a series of problems faced by listed companies in Jilin Province in CSR performance as a data source, a CSR indicator system was established through SPSS software, and a regression analysis research method was adopted to study the current status of CSR performance of listed companies in Jilin, Heilongjiang, Liaoning, and Jiangsu Province based on a regional perspective, and the relationship between each dimension of CSR and financial performance. The research shows that: (1) Compared with Heilongjiang, Liaoning and Jiangsu provinces, the CSR performance of Jilin Province fluctuates, showing a trend of increasing and then decreasing; (2) Whether it is Jilin Province or Heilongjiang Province, Liaoning Pprovince or Jiangsu Province, there is a certain correlation between the corporate CSR performance and financial performance, and the direction of correlation is the same. Shareholders, creditors and the government have a significant positive correlation with financial performance, and employees have a negative correlation; (3)The specific aspects of the implementation of CSR by enterprises in different regions have a certain degree of impact on their financial performance. Jilin Province's CSR has the greatest impact on its financial performance.Finally, in order to promote various enterprises in Jilin Province to better perform CSR, based on the conclusions drawn, it gives certain feasibility suggestions from three aspects: the enterprise, the government, and the public.

Keywords

corporate social responsibility; financial performance; listed companies; return on net assets.

1. Introduction

Corporate Social Responsibility (CSR) means that the company must not only obtain profits and bear corresponding responsibilities to shareholders, but also bear responsibilities to employees, consumers, shareholders and other aspects. It requires companies to break the traditional concept of obtaining profits as the sole goal , emphasizing the need to pay attention to the value of people in the production process, at the same time, we must contribute to the

environment and social welfare. However, based on the purpose of the enterprise, the enterprise itself is a profitable economic organization. So, should the enterprise pay a certain economic cost to assume CSR? Will fulfilling CSR bring certain benefits to enterprises? And how does the company's CSR relate to its financial performance? [1]

At present, the research conclusions on the relationship between the two are different, and there are mainly four views: the two are related, and the two are not related. Among them, the views about the relationship between the two appear again Two types of views, namely, the two are negatively correlated and the two are positively correlated.[2]

2. CSR Research at Home and Abroad and the Status of CSR Disclosure in Jilin Province

(1) Empirical research by domestic and foreign scholars

1. Research by foreign scholars

Scholar Howard R. Bowen (1953) pointed out "What is the responsibility of a company to society?" He felt that the enterprise is the center of power and decision-making, and most of the activities of the enterprise have great relevance to the lives of social people. Therefore, he defined corporate social responsibility as "the mission of an enterprise is to pursue all activities that fit social values and satisfy the public." Bowen's (1953) values are regarded as preliminary corporate CSR concepts, and Bowen is therefore regarded as the founder of CSR. Scholar Davis (1960) believes that the strength of an enterprise has a certain close relationship with the enterprise CSR, emphasizing that it is necessary to pay attention to the correlation between the two, so as to put forward the concept of "the iron law of corporate social responsibility". Enterprises have a lot of resources and will have a certain effect on society. Therefore, enterprises must bear certain social responsibilities in the process of growth. Scholar Frederick (1960) believes that enterprise CSR means that enterprises should take social welfare as the main goal in production and operation, and at the same time be able to effectively monitor and govern the operation requirements of the overall enterprise, thereby meeting the basic requirements of society. Bramrner [3] etc. (2006) pointed out that the implementation of CSR is an input behavior that will reduce Financial Performance. Yuhei et al. [4] (2010) conducted an empirical test on the four major tourism-related industries and believed that CSR could not increase the financial performance of enterprises [6]. Francesco Gangi. et al. (2019) [5] believes that CSR contributes to the value creation of society and enterprises. Elena Platonova.[7] (2018) took Islamic banks as the research object and found that there is a significant positive correlation between the release of CSR and financial performance, and there is a positive relationship between CSR disclosure and future financial performance. Sulin Pang et al [8] believed that the positive performance of listed companies on CSR can help improve financial performance to a certain extent, and it will also affect the improvement of financial performance in the future.

2. Research by Domestic Scholars

Shen Hongtao [9] (2005) based on data released by enterprises, uses content analysis to determine the weights of stakeholders and empirically tests the company's CSR and financial performance: the two are causal and positively related to each other. Chen Yuqing and Ma Lili (2005) [10] based on stakeholder theory, select indicators that can evaluate the CSR of the enterprise. The A-share company with more complete information disclosure is selected as a sample to quantitatively analyze the CSR of the company and Tobin Q. The conclusion proves that there is no relationship between the two. [11]Li Zheng's inspection of 521 listed companies in 2003 found that there was a negative correlation between the company's CSR and Tobin Q. Wen Subin and Fang Yuan [12](2008) examined 46 companies and found that from the current perspective, corporate responsibility for CSR has a negative effect on the growth of financial

performance, but in the long run, the situation is quite the opposite. Zhao Yun, Huang Jieyu [13] (2018) found from the data of 2014-2016 Whether in the eastern or central and western regions, the implementation of corporate CSR will promote the growth of corporate financial performance to a certain extent. The conclusion drawn by Li Shuangchen [14] (2015) from the power industry sample on the relationship between CSR and financial performance shows that the current financial performance of the power industry is positively correlated with the performance of CSR, but it is slightly less significant for inter-period. Li Xuying [15] (2019) believes that when enterprises evaluate their operating conditions, they should take the long-term interests into consideration and take into account the fulfillment of corporate social responsibilities. Improve the financial situation through social responsibility and help the sustainable development of enterprises.

To sum up, the relationship between the corporate CSR and its financial performance has not reached a unified statement so far, mainly because: (1) The economic development and industry conditions of the location of the research object are different, resulting in the possible CSR empirical analysis results. There are major discrepancies. (2) The research methods are diverse. When scholars cannot adopt a unified research method to study the relationship between the two, it will also lead to differences in results. The currently commonly used methods are standardized research methods, survey analysis and philosophical analysis methods. Each method has its proper scope of application, but it is impossible to find a specific method that can accurately measure the relationship between CSR and financial performance. (3) The constructed CSR index system and model are individual and will also have a certain impact on the research results. (4) Whether the CSR of enterprises of different sizes has a significant impact on financial performance is mainly reflected in the short and long term. Small-scale companies may not be able to show significant effects in a short time, but in the long run, the implementation of CSR by enterprises to a certain extent can Effectively improve the growth of financial performance.

(2) Status of CSR disclosure in Jilin Province

With the continuous improvement of China's reform and opening system, the social economy has been greatly developed. On the one hand, it has brought many opportunities and challenges to various enterprises in China. On the other hand, it has exposed a series of problems, such as "Kangmei Pharmaceutical Financial Fraud ", "Jianghuai Automobile Emissions Fraud Case", "Double Contracts" and "Jia Duobao's Donation for Wenchuan Earthquake " and other events all reflect the current status of China's CSR: (1) Some companies have adversely affected relevant users during the process of information disclosure and fraud (creditors, suppliers, etc.); substandard product quality severely reduces consumers' vested interests; evading tax obligations and challenging national policies have adversely affected society, but also There are enterprises that actively respond to the national call for the development of philanthropy and help public welfare.(2) The implementation of CSR is uneven; most companies lack CSR awareness and evade tax liability, and some companies pay necessary attention to it.

Jilin Province is located in the central region of Northeast China, and its economic development level is relatively backward compared to other provinces in the country. It has a strong regional culture. As an old industrial base, in recent years, it has followed the strategy of the country's northeast revitalization and implemented a comprehensive revitalization and comprehensive revitalization. With the new weather and new responsibility as the promotion of the revitalization of Northeast China, how about the disclosure of CSR for such a special province? Is its economic development synchronized with the implementation of CSR? Based on these issues, this article collected the disclosure of the social responsibility reports of Jilin, Heilongjiang, Liaoning, and Jiangsu provinces from 2014 to 2018, and analyzed and compared the amount and content of the disclosure.

1. Distribution of number of reports

Table 1 shows the manual quantity survey of social responsibility reports of Jilin, Heilongjiang, Liaoning and Jiangsu provinces from 2015 to 2018. As can be seen from the table, the number of five-year social responsibility report disclosures in Jilin Province and Heilongjiang Province showed a downward trend. Among them, the growth rate of Jilin Province in 2017-2018 was negative, the disclosure of Liaoning Province was good, and the number of disclosures in Jiangsu Province continued to rise. It can be seen that, among the four provinces, the current disclosure status of Jilin Province's social responsibility report is the worst, declining year by year, and the cumulative disclosure amount in five years is relatively backward. The disclosure of social responsibility report in Jilin Province in the past five years is not good. The social responsibility report was not disclosed in 2016, and public disclosure began in 2017. Investigating its deep-seated reasons: First, the disclosure of social responsibility reports and social responsibilities are not mandatory requirements. Corporate leaders have insufficient understanding of fulfilling social responsibilities and subjectively choose to evade them. The second is that the documents for the disclosure of social responsibility have not yet been formulated, and the judgment criteria are not unified, and the government and social control are very lacking in it; Third, the special industrialization situation in Jilin Province. Most enterprises want to pursue relatively large short-term economic benefits and ignore their long-term strategies.

2. Report disclosure quality

In terms of specific content, from 2014 to 2015, most of the social responsibility reports issued by enterprises in Jilin Province have a single structure, only a qualitative introduction to how the company currently performs the responsibilities of shareholders and employees, and there is a lack of specific figures to quantify and assume various interests. The size of the responsibilities of the related parties, and there is no intuitive evidence to show the actual performance of the enterprise. Heilongjiang Province is like Liaoning Province. The disclosure content is more consumer and environmental than Jilin Province. The content of Jiangsu's social responsibility report is relatively complete among the four provinces, covering eight aspects of social responsibility, namely shareholders, creditors, suppliers, government, employees, consumers, environment and public welfare, and the social responsibility report is relatively standardized ;from 2016 to 2018, compared with Heilongjiang, Liaoning and Jiangsu provinces, Jilin Province has gradually improved and enriched its content, and the report format has become more standardized.

Table 1. Disclosure statistics of five-year CSR reports in Jilin, Heilongjiang, Liaoning and Jiangsu Provinces

	Time	Actual disclosure Quantity	Disclosure rate	Growth rate
Jilin	2014	5	10%	-
	2015	10	19%	100%
	2016	14	27%	40%
	2017	12	23%	-14%
	2018	11	21%	-8%
-	total	52	-	-
Heilongjiang	2014	4	15%	-
	2015	5	19%	25%
	2016	6	22%	20%
	2017	6	22%	0%
	2018	6	22%	0%
-	total	27	-	-
Liaoning	2014	10	12%	-
	2015	16	20%	60%
	2016	18	22%	13%
	2017	17	21%	-6%
	2018	20	25%	18%
-	total	81	-	-
Jiangsu	2014	3	9%	-
	2015	4	11%	33%
	2016	5	14%	25%
	2017	8	23%	60%
	2018	15	43%	88%
	total	35	-	-

Note: The data comes from the statistics of Shenzhen Stock Exchange and Shanghai Stock Exchange

Therefore, based on the above analysis, this article gives the following assumptions:

Hypothesis 1: The degree of CSR performance of an enterprise is closely related to its economic environment. Compared with the CSR performance of Heilongjiang Province, Liaoning Province and Jiangsu Province, the CSR performance of Jilin Province has fluctuated in the past five years, varying from year to year, but overall is a slight downward trend.

Hypothesis 2: For Jilin Province, where economic development and geographical location are relatively special, the social responsibility and financial performance of shareholders, creditors and the government show a significant positive relationship, while employees show a significant negative correlation with it, which is no different from the results of Heilongjiang, Liaoning and Jiangsu Provinces.

Hypothesis 3: The specific aspects of the implementation of CSR by companies in different regions have different impacts on their financial performance. Based on this special situation in Jilin Province, this article believes that the degree of CSR performance has the most significant impact on financial performance.

3. Research Design

(1) Selection of research variables

With reference to the international CSR standard "SA8000" and the General Administration of Quality Supervision, Inspection and Quarantine and the Standards Commission jointly issued the CSR series of national standards, etc., combined with previous scholars' research results and in view of the limitations of information disclosure of listed companies in my country. This article is based on Jilin Province mainly focusing on heavy industry, supplemented by light industry, and diversified resource allocation to increase enterprise value creation principle, [16] chooses index variables that can effectively reflect the company's CSR and financial performance:

1. Measurement of corporate responsibility to investors. Earnings per share growth rate refers to the growth rate of the ratio of the annual after-tax profit to the total share capital. It is the annual increase in the net profit of ordinary shareholders or the net loss of the company that they need to bear. The profitability of stocks per share is one of the important financial indicators on which investors and other relevant users evaluate their profitability, predict their growth potential, and then make relevant economic decisions. The larger the value, the more profitable it is.

2. The measurement of the liability of the creditor by the enterprise. The shareholder's equity ratio reflects how many owners of the company's assets input and how many belong to the debtor's obligations, and can intuitively see the size of the company's financial leverage. If the ratio is too small, it means that it has too much debt and it is easy to reduce its ability to withstand external financial shocks; and if the ratio is too large, it means that the company has not used financial means to guide its production.

3. Measurement of corporate responsibility to the government. The government contribution rate refers to the proportion of taxes and fees actually paid by enterprises in total assets, reflecting the degree of their contribution to the national fiscal revenue.

4. The measurement of the responsibilities of enterprises to employees. Employee profitability reflects the company's distribution of employee benefits in operating income. The higher the ratio, the higher the employee's disposable income; fairness reflects the proportion of women in corporate executives.

5. Measurement of financial performance. The return on equity (ROE) refers to the ratio of net profit to average shareholders' equity. This indicator reflects the level of return on shareholders' equity and is used to evaluate the efficiency of the company's use of capital. The higher the index value, the higher the return on investment, which reflects the company's ability to obtain pure profits. It can evaluate the efficiency of the company's use of invested capital. As the index score increases, the return on investment also increases. That is, this indicator reflects the overall ability of an enterprise to use capital to obtain net profit.

Table 2. Variable and calculation formula table

First-level indicator	Variable name	Symbol	Definition of indicator
Explained variable	CSR	X	(root) CSR score calculated based on stakeholder weight
	ROE	Y	After-tax profit/owner's equity
Explanatory variables	Earnings per share growth rate	X1	(Earnings per share-earnings per share)/earnings per share
	Shareholders' equity ratio	X2	Total investor equity/total assets
	Government contribution rate	X3	(Pay various taxes and fees-taxes and fees returned) / total assets
	Employee profit level	X4	Cash paid to and paid for employees/main business income

(2) Setting of control variables

After in-depth research and investigation, it was found that the size of the industry, the existence time of the enterprise, the characteristics of the industry, the location of the listing, the ownership, etc. will have varying degrees of impact on the financial performance of the enterprise.

The size of the company affects many aspects of the enterprise, such as financing and financing capabilities. Large companies have a relatively high level of equity and market share due to their total assets and owner's equity. Therefore, they have a greater advantage over small and medium-sized companies in terms of effectiveness and market share; while most long-lived companies may not perform as well as emerging companies, but due to Because of its long-term accumulated social reputation and the long-lasting brand effect and other advantages, most companies are still stronger than young ones, so it will also have a certain effect on their financial performance; For different industries, the CSR undertaken by the heavily polluting industry is undoubtedly more than that of other industries [17]; different listing places will also have a certain impact on CSR. Generally, large-cap stocks are listed on the Shanghai Stock Exchange, while small-cap stocks choose to be listed on the Shenzhen Stock Exchange; the difference in ownership will also affect the performance of the company's CSR. State-owned holdings have their own unique characteristics. With respect to domestic legal person holding and overseas legal person holding, there is a certain difference in the size of CSR undertaking.

The samples selected in this article are all large companies that have been successfully listed in the four provinces, so the sample data has been consistent in this regard.

Considering the influence of the above important variables on the research results, this paper uses the control variable method to control the following four variables.

Table 3. Selection of control variables

control variable	Ownership	K1	State-owned holding 2, domestic legal person 1, overseas legal person 0
	Business age	K2	The natural logarithm of the number listed to today
	Place of listing	K3	Shenzhen Stock Exchange 1
			Shanghai Stock Exchange 0
	Industry	K4	1) Industry 2) Pharmaceutical industry 3) Real estate 4) Utilities 5) Commercial 6) Others

(3) Model design

1. CSR score calculation

Based on Shen Hongtao's [18] research on enterprise CSR, this paper selects samples from three provinces to clarify the proportion of stakeholders according to the following methods:

Shareholder weight=Equity/Total assets+ Principal interest/ Total assets*(Equity/ Shareholders + financial persons + employees + government)

Heavy claims and human rights= debt/ Total assets+ Principal interest/ Total assets*(creditor/ Shareholders + financial persons + employees + government)

Other interests are important +Principal interest/ Total assets*(Stakeholder / Shareholders + financial persons + employees + government

Table 4. Weights of stakeholders in listed companies in four provinces   Unit: %

	Shareholders	Creditors	Employees	Government
Jilin Province	0.54	0.31	0.03	0.08
Heilongjiang Province	0.44	0.29	0.23	0.04
Liaoning Province	0.28	0.36	0.29	0.07
Jiangsu Province	0.40	0.26	0.26	0.08

Therefore, the company's CSR score can be derived from the following:

$$CRS = \sum_{i=1}^{17} a_i x_i$$

2. CSR and ROE relationship model

In order to examine the impact of CSR on financial performance, from the perspective of CSR to consider the impact of corporate social responsibility fulfillment on ROE, the following regression model is established:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 K_1 + \beta_6 K_2 + \beta_7 K_3 + \beta_8 K_4 + \varepsilon$$

Among them: βj is the coefficient of the regression equation, ε is the error term of the regression equation.

(4) Research samples and data sources

Due to the different development levels of various regions, such as the large economic difference between the second and third-tier cities and the first-tier cities, in order to increase the credibility of the data comparison results and make up for the shortcomings of most scholars who did not distinguish between regions, this paper selects Jilin, which has a special economic development The province is the main research object, with Heilongjiang Province, Liaoning Province, and Jiangsu Province, which are in a developed level and have a relatively concentrated distribution of enterprises, as a reference. The relevant data of 566 listed companies in the four provinces from 2014 to 2018 are Study sample source. Because the financial data of financial companies differs greatly from other industries and the comparability is not high, this article does not consider such companies, and excludes companies with incomplete information disclosure in five years. For the maximum and minimum values in the sample, based on Considering the overall balance, this article eliminates both.

Table 5. Sample selection table

Project	Selection
Research object	35 in Jilin Province, 355 in Jiangsu Province, 27 in Heilongjiang, and 71 in Liaoning Province
Data range	2014-2018
Culling	Financial companies and ST companies
Culling	Companies with incomplete information disclosure in five years.
Overall sample size	Five-year overall sample size is 2470
Annual sample size	The sample size of each year is 494

After the above screening, this paper selects 175 companies in Jilin Province, 1,775 in Jiangsu Province, 135 in Heilongjiang Province, and 355 listed companies in Liaoning Province from 2014 to 2018 as the five-year sample population, with a sample size of 488 each year. All financial data comes from websites such as Tianyancha, Juchao, Netease Finance and Zhongcai.

Table 6. Sample distribution statistics

Attributes	classification	Jilin		Liaoning		Heilongjiang		Jiangsu	
		Frequency	Samples proportion(%)	Frequency	Samples proportion(%)	Frequency	Samples proportion(%)	Frequency	Samples proportion(%)
Industry	industry	18	51.43	40	56.34	17	62.96	271	76.34
	Medicine industry	5	14.29	0	0	2	7.41	17	4.79
	real estate	3	8.57	12	16.90	0	0.00	4	1.13
	public cause	8	22.86	1	1.41	3	11.11	10	2.82
	business	1	2.86	7	9.86	2	7.41	2	0.56
	other	0	0.00	11	15.49	3	11.11	51	14.37
Total		35	1.00	71	1.00	27	1.00	355	1.00
Ownership	State-owned holding	9	25.71	25	35.21	8	29.63	18	5.07
	Domestic legal person	26	74.29	46	64.79	19	70.37	336	94.66
	Foreign legal person	0	0.00	0	0.00	0	0.00	1	0.28
Total		35	1.00	73	1.00	29	1.00	355	1.00
Place of listing	Shanghai Stock Exchange	15	42.86	30	42.25	8	29.63	209	58.87
	Shenzhen Stock Exchange	20	57.17	41	57.75	19	70.37	146	41.13
Total		35	1.00	71	0.00	27	1.00	355	1.00

4. Empirical Analysis

(1) Descriptive statistics and CSR trend analysis

1. Descriptive statistical analysis

Descriptive statistics on the relevant indexes of 71 companies in Liaoning Province, 35 companies in Jilin Province, 355 companies in Jiangsu Province, and 27 companies listed in Heilongjiang Province in 2014-2018 are available:

The maximum value of ROE (Y) in Jilin Province is 0.198, the minimum value is -1.017, and the average value is 0.056; the maximum value of ROE in Heilongjiang is 0.527, the minimum value is -0.623, and the average value is 0.055; the maximum value of ROE in Liaoning Province is 3.885, the minimum value Is -5.700, with an average value of 0.033; the maximum value of ROE in Jiangsu Province is 1.042, the minimum value is -8.451, and the average value is 0.087.It can be seen from the perspective of the mean, maximum, minimum and standard deviation, Jilin Province has a large difference from the shareholder creditors, and the performance of the

employees and the government is small. Heilongjiang, Liaoning and Jiangsu Province Jilin Province is no different.

Table 7. Descriptive data of four provinces

Variable	Province	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness	Kurtosis
Y	Jilin Province	-1.017	0.198	0.056	0.115	0.013	-6.09	50.728
	Heilongjiang Province	-0.623	0.527	0.055	0.116	0.013	-1.985	13.211
	Liaoning Province	-5.7	3.885	0.033	0.452	0.204	-5.03	94.313
	Jiangsu Province	-8.451	1.042	0.087	0.246	0.061	-24.314	822.809
X1	Jilin Province	-20.667	22	-0.09	3.309	10.948	-0.479	24.941
	Heilongjiang Province	-79	7	-0.546	6.989	48.843	-10.691	120.905
	Liaoning Province	-30	23	-0.719	3.752	14.076	-2.485	23.805
	Jiangsu Province	-55	82.5	-0.02	4.106	16.862	6.795	182.433
X2	Jilin Province	0.208	1.826	0.574	0.251	0.063	1.324	3.995
	Heilongjiang Province	0.078	0.972	0.578	0.188	0.035	-0.589	-0.03
	Liaoning Province	-0.226	0.983	0.518	0.201	0.04	-0.295	-0.025
	Jiangsu Province	-1.681	0.971	0.603	0.205	0.042	-1.162	7.945
X3	Jilin Province	-0.024	0.154	0.03	0.023	0.001	2.362	9.447
	Heilongjiang Province	0.002	0.147	0.034	0.029	0.001	1.198	1.192
	Liaoning Province	-0.094	0.187	0.027	0.03	0.001	1.743	6.534
	Jiangsu Province	-0.154	0.333	0.03	0.035	0.001	1.528	11.13
X4	Jilin Province	0.013	1.091	0.181	0.189	0.036	2.27	5.709
	Heilongjiang Province	0.009	0.666	0.134	0.11	0.012	2.916	10.901
	Liaoning Province	0.009	0.733	0.123	0.091	0.008	2.124	7.958
	Jiangsu Province	0	2.732	0.136	0.111	0.012	8.285	172.85

2. CSR trend analysis

In this paper, based on the average weight of each index of the four provinces obtained from the CSR score part of the model design, the annual CSR average of the four provinces is calculated according to Shen Hongtao's CSR formula, and it is expressed by a trend graph to quantify the

research Differences in CSR performance between Jilin and Heilongjiang, Liaoning and Jiangsu provinces. It can be seen from the figure that from 2014 to 2018, the average CSR score of Jilin Province fluctuated, showing a trend of decreasing first and then increasing and then decreasing. For Heilongjiang Province, although the CSR scores fluctuated greatly in 2015, the overall trend was still rising. The CSR scores of Liaoning Province and Jiangsu Province fluctuated to a similar degree, showing that the four provinces have different CSR scores. In the same way, Jilin Province, which has a relatively backward economy, has certain factors that affect the stability of enterprises in fulfilling their social responsibilities, while Liaoning Province and Jiangsu Province, where economic development is more developed, have relatively stable CSR performance status, thus verifying Hypothesis 1.
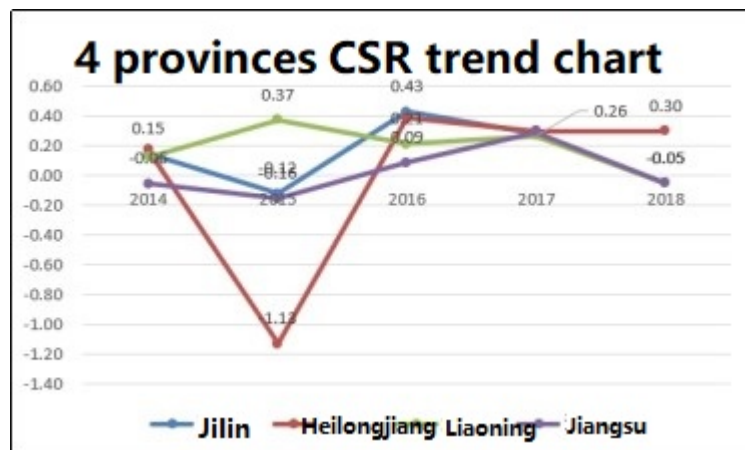

Figure 1. CSR score trend of four provinces

(2) Correlation analysis

This article intends to use linear regression analysis to find the correlation between each indicator and financial performance, but it is necessary to study the correlation between each indicator before this, which is greater for determining the relationship between the two and establishing a reasonable indicator system. Meaning. Use SPSS20.0 to get the correlation statistics table of the three provinces (see Table 10, Table 11, Table 12, Table 13).

Table 8 lists the Pearson correlation coefficient matrix between the variables in Jilin Province. The return on net assets at the 1% level is significantly positively correlated with the growth rate of earnings per share, and other variables have no significant correlation; while among the variables in Heilongjiang Province In the Pearson correlation coefficient matrix, at a level of 1%, the return on net assets is significantly positively correlated with the shareholder's equity ratio, earnings per share growth rate, and government contribution rate, and is significantly negatively correlated with employee profitability; from the perspective of Liaoning Province, the return on net assets at the level of 1% is significantly positively correlated with the growth rate of earnings per share, and has no significant correlation with other variables; in addition, the correlation coefficients among other variables are all below 0. 5. The correlation is weak, indicating that the variables are independent of each other. In the correlation coefficient matrix of Jiangsu Province, the return on net assets at the level of 1% is significantly positively related to the growth rate of earnings per share and the government's contribution rate, and is significantly negatively related to the level of employee profitability, and at the level of 5% The ratio is significantly positively correlated.

Table 8. Pearson correlation coefficient table of four provinces

Province		Y	X1	X2	X3	X4
Jilin Province	Y	1				
	X1	.375**	1			
	X2	0.147	.181*	1		
	X3	0.133	-0.135	-0.004	1	
	X4	-7.50E-02	0.047	.437**	-0.118	1
Heilongjiang Province	Y	1				
	X1	.240**	1			
	X2	.227**	-0.044	1		
	X3	.329**	0.033	.204*	1	
	X4	-.229**	-0.007	0.07	-0.168	1
Liaoning Province	Y	1				
	X1	.216**	1			
	X2	0.088	.246**	1		
	X3	0.091	.134*	.179**	1	
	X4	-0.007	-0.02	.196**	-0.002	1
Jiangsu Province	Y	1				
	X1	.217**	1			
	X2	.051*	-0.009	1		
	X3	.150**	.053*	.109**	1	
	X4	-.085**	-.074**	.217**	.061*	1

Note: * and ** indicate significant correlation at the 0.05 and 0.01 levels, respectively

(3) Regression analysis

The correlation of the variables is obtained through correlation analysis, but this analysis is only a preliminary test of the relationship between the variables. The following will further examine the relationship between CSR and financial performance by performing a linear regression analysis of Model 2. In order to further explore the impact of its CSR indicators on financial performance.

The analysis results are as follows:

Jilin, Heilongjiang, Liaoning and Jiangsu Province have a significant positive correlation between ROE and earnings per share growth rate (X1), shareholder equity ratio (X2) and government contribution rate (X3), indicating that the company is actively performing The return to investors, the obligations of creditors, and the government's taxation will promote the growth of financial performance; Jilin Province, Liaoning Province, and Jiangsu Province have a significant negative correlation between ROE and employee profitability (X4) at a 1% significance level. The ROE of Heilongjiang Province has a negative correlation with the employee profit level (X4), indicating that the company's active performance of employee benefits is not conducive to the development of the company's financial performance.

Contrast: From the above analysis results, we can see that overall, the positive and negative impact of Jilin Province on the three aspects of social responsibility of shareholders, government and creditors on financial performance ROE is almost the same as the results of Heilongjiang Province, Liaoning Province and Jiangsu Province. However, from the perspective of the value of each regression coefficient, it is different. The algebraic sum of each regression coefficient in Jilin Province is generally larger than that of Heilongjiang Province, Liaoning

Province, and Jiangsu Province. It can be seen that although the economic level and geographical location of Jilin Province are the last provinces among the four provinces, the impact of their CSR on financial performance is not much different from that of Heilongjiang, Liaoning and Jiangsu provinces, thus verifying Hypothesis 2, Hypothesis 3.

Table 9. Results of regression analysis in Jilin Province

	Unstandardized coefficient	T	Collinear statistics	
	B		Tolerance	VIF
a	0.037	1.201		
X1	0.012**	9.602	0.983	1.018
X2	0.082**	2.98	0.86	1.163
X3	0.903**	5.411	0.952	1.05
X4	-0.175**	-3.497	0.857	1.167
K1	0.015	0.913	0.902	1.108
K2	-0.021**	-2.969	0.819	1.22
K3	0.033	3.225	0.734	1.362
K4	-0.0002	-0.094	0.684	1.50
Jilin Province	0.03	1.271	0.791	1.264
Adjusted R2	0.069			
F	14.902			

Table 10. Heilongjiang regression analysis results

	Unstandardized coefficient	T	Collinear statistics	
	B		Tolerance	VIF
a	0.035	1.14		
X1	0.012**	9.636	0.983	1.017
X2	0.083**	2.989	0.86	1.163
X3	0.914**	5.478	0.952	1.05
X4	-0.167	-3.357	0.872	1.147
K1	0.014	0.898	0.897	1.114
K2	-0.019**	-2.741	0.848	1.179
K3	0.029	2.923	0.778	1.285
K4	0.002	0.037	0.698	1.472
Hei longjiang Province	0	0.019	0.927	1.078
Adjusted R2	0.068			
F	14.768			

Table 11. Results of regression analysis in Liaoning Province

	Unstandardized coefficient	T	Collinear statistics	
	B		Tolerance	VIF
a	0.05	1.593		
X1	0.012**	9.554	0.981	1.019
X2	0.079**	2.85	0.855	1.169
X3	0.91**	5.463	0.955	1.047
X4	-0.171**	-3.44	0.87	1.149
K1	0.02	1.205	0.876	1.142
K2	-0.019**	-2.671	0.858	1.165
K3	0.001	-0.001	0.69	1.487
K4	0.023*	2.157	0.712	1.404
Liaoning Province	-0.033	-1.838	0.717	1.396
Adjusted R2	0.07			
F	15.048			

Table 12. Results of regression analysis in Jiangsu Province

	Unstandardized coefficient	T	Collinear statistics	
	B		Tolerance	VIF
a	0.028	0.877		
X1	0.012**	9.611	0.982	1.018
X2	0.082**	2.95	0.858	1.166
X3	0.922**	5.525	0.951	1.051
X4	-0.165**	-3.323	0.871	1.149
K1	0.017	1.039	0.866	1.154
K2	-0.018*	-2.447	0.798	1.254
K3	0.024*	1.991	0.542	1.845
K4	0.002	0.077	0.697	1.473
Jiangsu Province	0.013	0.776	0.535	1.87
Adjusted R2	0.069			
F	14.818			

5. Research Conclusions and Countermeasures

1. Research conclusion

In this paper, the research object is located in Jilin Province, which is relatively backward in economic development, and it is compared with similar Heilongjiang and Liaoning Provinces and Jiangsu Province, which is developed along the coast. The financial data released by the four provincial listed companies from 2014 to 2018 are selected based on the region. A comparative perspective explores the correlation between the performance of CSR and financial performance in Jilin Province.

Research indicates:

(1) Enterprises in different economic development provinces have different degrees of CSR performance. Compared with Heilongjiang Province, Liaoning Province and Jiangsu Province, for Jilin Province, which has a relatively backward economic development, its CSR score

fluctuates, showing a first decrease After a small increase, the trend is decreasing.

(2) The results of Heilongjiang Province, Liaoning Province and Jiangsu Province are the same. The three dimensions of shareholder, creditor and government of CSR in Jilin Province have a significant positive relationship with financial performance ROE, while employees have a reverse relationship with it.

(3) Enterprises in different provinces have different degrees of impact on the financial performance of CSR. Jilin Province, as the most backward economy among the four provinces, its CSR has the greatest impact on financial performance.

(4) Due to the small scale of enterprises in Jilin Province, the lack of ability to resist risks, the hollowing of human resources, the lack of innovation capabilities, the lack of well-known brands, the low grade of products, the uneven industrial layout, and the imperfect systems, most enterprises are one-sided In pursuit of immediate benefits, in order to reduce product costs, subsume good, disregard the legitimate rights and interests of employees, extend working hours, build profits on the basis of destroying and polluting the environment, and evade tax evasion, tax evasion, etc. As a result, CSR-related systems are being challenged, so it is imperative to strengthen companies to actively implement CSR.

2. Countermeasures and suggestions

In response to the above conclusions and status quo, this article gives the following suggestions:

(1) The enterprise. First of all, companies should establish relevant departments on CSR and invest a certain amount of manpower and material resources, such as establishing a CSR committee to supervise and evaluate the implementation of CSR by the company. Senior leaders of the company should have the right to know and make decisions. Avoid the existence of some personnel centralization and fraud to affect the development of the company's CSR; secondly, companies should focus on the development of their own cultural soft power, especially the enhancement of CSR awareness, and lead employees to carry out activities to actively perform CSR, such as organizing public welfare activities for poor children offline, participate in volunteer service activities for environmental protection, establish a platform dedicated to the interaction between corporate personnel and customers, etc. Finally, corporate leaders should also continue to strengthen their CSR management level to improve operating capabilities and integrate with international standards.

(2) The government. Adopting appropriate mechanisms to consciously adjust CSR will help companies quickly pursue their own CSR goals and generally create sustained and effective impacts. [19] Therefore, first of all, the government should establish and improve the CSR monitoring mechanism, strictly monitor the implementation of CSR by enterprises, and maintain the majesty of the CSR system, such as the General Administration of Social Rights established in Italy, the Citizens' Committee organized by Japan, etc. Secondly, the government should use legal means to promote the healthy development of CSR, establish a fair and equitable reward and punishment mechanism, use incentive policies to encourage active companies to perform CSR, for example, South Korea gives preferential financial loan policies to companies that perform excellent CSR, and use punitive methods. Urge the enterprise to consciously perform, such as exposing the enterprise's irresponsible behavior.

(3) The public. First of all, it is necessary to strengthen the public's awareness of the certain obligations of the company to fulfill CSR and understand the corresponding scope of CSR; secondly, when it finds that the company violates its own rights and interests and other challenges to the bottom line of CSR, it should reflect to the relevant departments to effectively protect its legal rights and interests. Don't take a tolerant attitude of swallowing a big deal, and a little things will become indulgent. The development of society requires the power of the public. Whether the public itself has CSR awareness affects the importance that Chinese enterprises attach to CSR.

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