Relationship between Corporate Social Responsibility Performance and Corporate

Financial Performance-Listed Companies in China's Power Industry

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Abstract

The purpose of this study is to use quantitative analysis to better understand the degree of relevance of social responsibility performance and financial performance of state-controlled listed companies.

The sample consisted of selecting energy companies listed on the Shanghai and Shenzhen stock exchanges as a population of 50 state-run listed companies. In 2008, the State Property Regulatory Commission issued recommendations regarding central corporate social responsibility operations. In 2011, the State Assets Regulatory Commission issued the outline for the implementation of the plan. The 12th Five Year Plan for Central Coordination Development in 2012, the State Asset Regulatory Commission established a regulatory committee.

The instruments and research methodology were to begin with corporate social responsibility theory, stakeholder theory and contract theory, and selects energy companies listed on the Shanghai and Shenzhen stock exchanges as a population of 50 state-run listed companies. Theoretical analysis, research hypothesis and research equation modeling analysis of results, regression analysis, and audits show that the current corporate social responsibility is positively correlated with the current financial performance.

The research results were found that the fulfillment of corporate social responsibility not only helps the company to build a good image, increase the reputation of the company, but also improve the financial efficiency of the organization. TER indicates that the state the stability of the responsibilities of the listed power companies to the government is better. PER, some companies perform poorly in environmental responsibilities in 2018; the standard deviation is 0.0698535, which indicates that state-controlled listed power company's performance of environmental responsibility is very stable. DER, indicating that the overall performance is very stable. OCR, the average value is 78.137012, which indicates that the overall operating cost

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of the power industry is relatively high; the standard deviation is 15.52566931, which also indicates that different power companies perform Customer responsibilities vary widely. EPS, indicates that the returns to shareholders from different companies are significantly different; the standard deviation the value is small, which indicates that the company's performance of social responsibility to shareholders is stable. The performance of social responsibility of state-controlled power companies have a positive impact on corporate financial performance.

Keywords: Corporate Social Responsibility Performance and Corporate Financial Performance

Introduction

Background of the Study

From a stakeholder perspective, the main idea is that companies should be responsible to government creditors, employees, suppliers, consumers, public welfare and the environment while seeking profit for shareholders to achieve common sales promotion goals. From 2001 to 2018, the Chinese government is working on promoting and controlling the corporate social responsibility operations of listed companies "Corporate Social Responsibility Guidelines of Listed Companies", "Environmental Disclosure Guidelines of Listed Companies", "Guidelines for supporting internal control of the company", "Document issuing center ".

Statement of Problems

There are a few researches in the academic community about corporate social responsibility in the energy industry.

Research Questions

By conducting empirical research on the relationship between state-controlled power companies in fulfilling their social responsibilities and financial performance, is it verified whether state-controlled holding power companies' corporate social responsibility will affect corporate financial performance?

Research Objectives

The purpose of this study is to use quantitative analysis to better understand the degree of relevance of social responsibility performance and financial performance of state-controlled listed companies.

Conceptual Framework

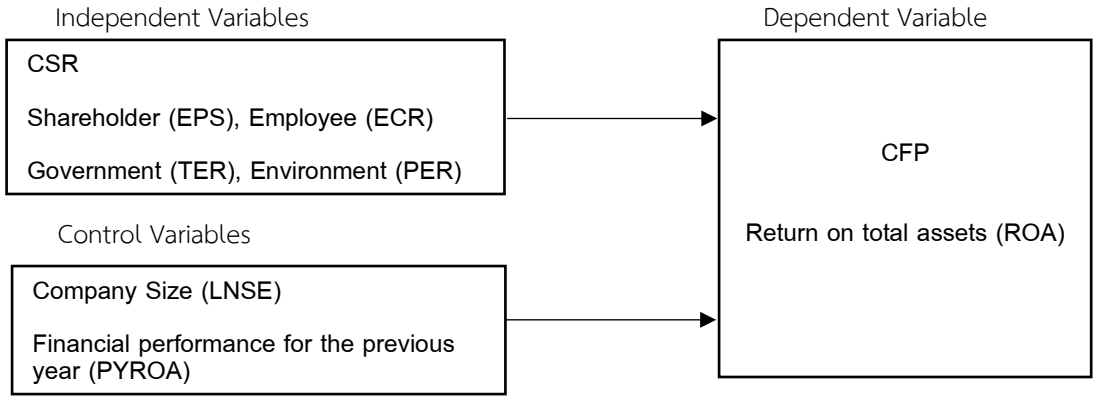

Figure 1-1. Conceptual Framework

Research Hypothesis

Hypothesis: State-controlled power companies can improve their financial performance by fulfilling their social responsibilities. That is, state-controlled power companies have a positive impact on their financial performance.

Scope of Research

In this study, our main objective is to determine whether the state-controlled holding company has a corporate social responsibility that has a positive impact on the company's financial performance or not.

1. Research Limitation Insufficient sample data and deficiency in empirical research

2. Research Significance It is a matter of great concern to companies to study whether corporate social responsibility will lead to a decline in financial performance.

3. Definitions of Terms CSR: Corporate social responsibility refers to the responsibilities and obligations that an enterprise should perform to its stakeholders in the course of its own business development.

CFP: Corporate Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues

Stakeholders: Stakeholders are parties that have an interest in the company and can influence and be affected by the business.

Business contract: An enterprise is a legal entity composed of a series of explicit contracts and implicit contracts.

Literature Review

1. Related Concept Definition

1.1 Corporate Social Responsibility

The core theme of corporate social responsibility is to use ethical methods to deal with and interact with stakeholders (Hopkins,2003), which will not harm any of the stakeholders (Carroll,1979). Corporate Social Responsibility is an activity performed by companies voluntarily (Sethi,1979). The theme and direction of corporate social responsibility is to provide better conditions for different stakeholders and improve the social and natural environment (Riordan,1997; Steiner,1972). In various perspectives today, social responsibility is regarded as an activity that involves the continuous and joint participation of all stakeholders in the business (Waddock,2004).

1.2 Corporate Financial Performance

There are many indicators in measuring the financial performance of an organization. Net return on assets, return on total assets, total turnover, and total debt to assets ratio can reflect the financial situation of an organization to a certain extent.

2. Theoretical Basis

2.1 Corporate Social Responsibility Theory

Among the many concepts that limit corporate social responsibility based on the most famous overall responsibility theory internationally is the Carroll (1979) Corporate Social Responsibility Pyramid concept, which is a corporate social responsibility concept that is most respected.

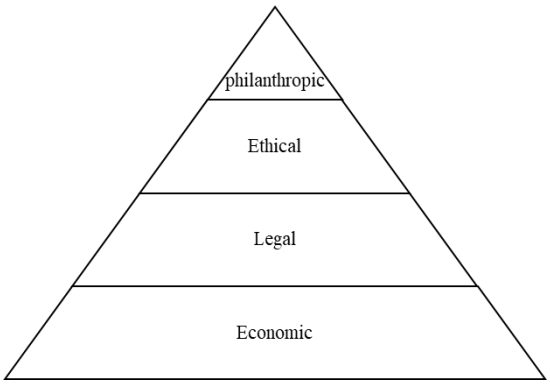

Figure 2-1. Carroll's corporate social responsibility pyramid model

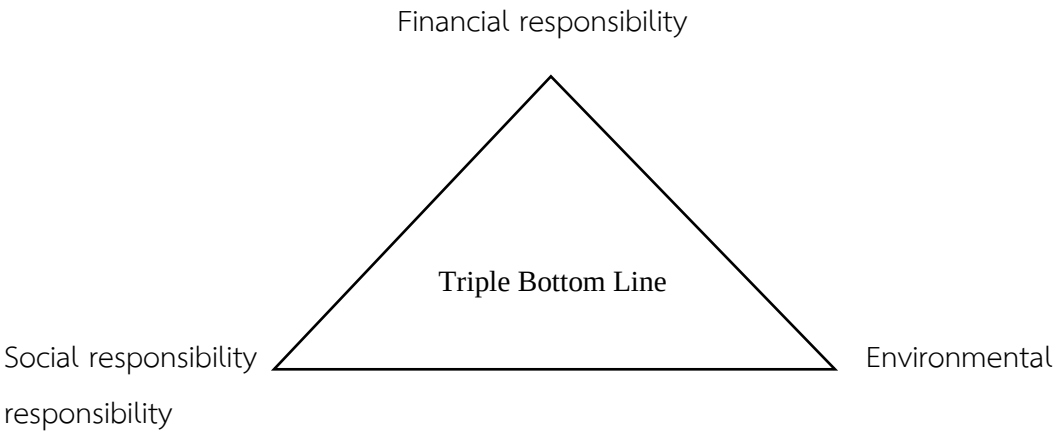

Figure 2-2. John Elkington's Triple Bottom Line

On this basis, the British scholar John Elkington put forward the triple bottom line theory in 1997, which believes that companies must actively perform social economic responsibility, environmental responsibility and social responsibility while conducting business.

The more mature theories in China include the "Four in One" theoretical model composed of the four aspects of responsibility management, environmental responsibility, market responsibility, and social responsibility proposed by the Chinese Academy of Social Sciences.

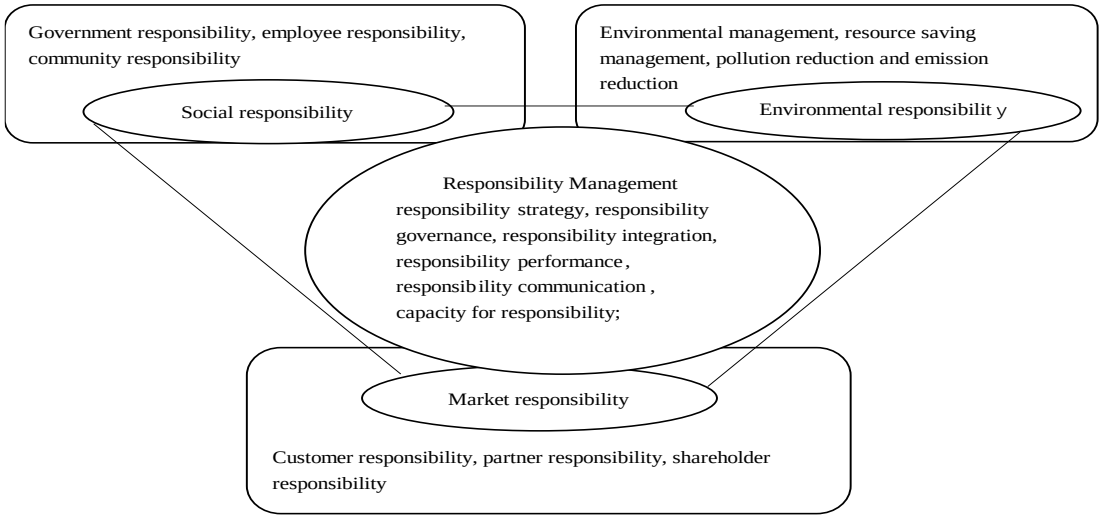

Figure 2-3. "Four in One" Model of Chinese Academy of Social Sciences

2.2 Stakeholder Theory

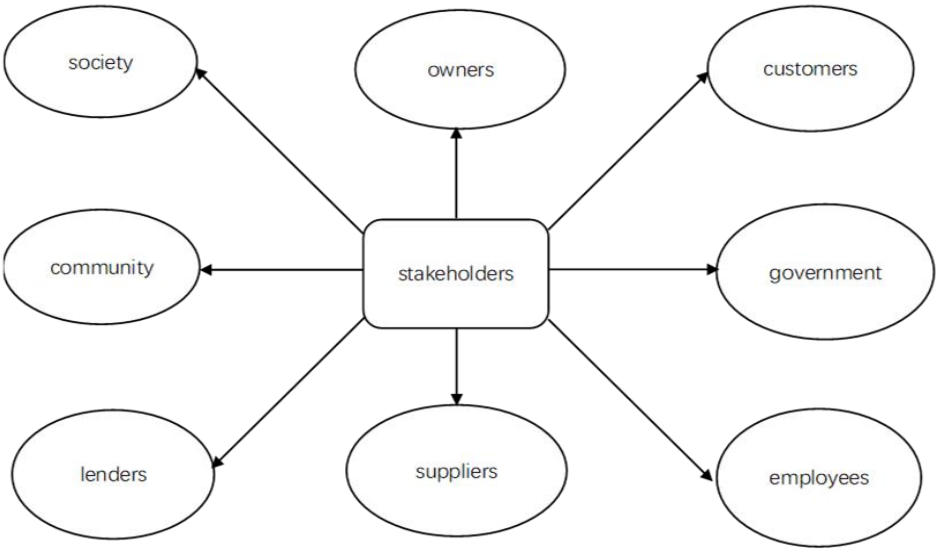

Figure 2-4. Stakeholder theory

Owen D. Yong, one of the managers of General Electric Company, stated in a speech in 1929 that the company has the responsibility and obligation to protect the interests of shareholders, corporate customers, employees, and the public. This is the origin of the stakeholder theory. In 1959, Penrose put forward a new viewpoint. He believed that the enterprise is composed of human assets and interpersonal relationships.

2.3 Business Contract Theory

From the perspective of stakeholders, to study the impact of corporate social responsibility performance on financial performance, we must use the social contract theory to understand the nature of the company and its operations, in order to analyze the economic consequences of its various behaviors, and social responsibility. Perform qualitative and quantitative research on the economic consequences of performance.

2.4 Summary

In summary, corporate social responsibility and financial performance are closely linked.

3. Theoretical Analysis of Research Variables

According to the foregoing, the proposal of the stakeholder theory provides a theoretical framework for the content research of social responsibility. According to the corporate social responsibility pyramid theory proposed by Carroll (1979). we can see that corporate social responsibility is defined as four levels: economic responsibility, legal responsibility, ethical responsibility and charitable responsibility. Wushu Chang (2008) also divided corporate social

responsibility and environmental responsibility, resource responsibility, quality responsibility, and moral responsibility.

3.1 Social Responsibility of Power Companies for Shareholders

Shareholders are investors and business owners. Value and profit of the organization is the profit of shareholders.

3.2 Social Responsibility of Power Companies for Employees

Employees are a fundamental part of an organization and a direct value creator. Service employees in the organization create value for the company's business management and core competitiveness in order to obtain resources for survival and development. Therefore, companies must pay attention to their needs and protect their rights

3.3 Social Responsibility of Power Companies for The Government

The government, in addition to having macro- economic functions for the economy, including income distribution functions, resource allocation functions, economic security, and development and market control functions. Therefore, there is a direct and indirect relationship between the government and various companies.

3.4 Social Responsibility of Power Companies for the Environment

The company's social responsibility for the environment included: complying with laws and regulations and administrative policies related to environmental protection, does not undermine future development for short-term benefits; and establishes an environmental protection management system.

3.5 Social Responsibility of Power Companies for Social Welfare

The organization is a part of society. Peace and social progress are creating space for the development of the organization. Therefore, organizations should take the initiative to take responsibility for social welfare and support the overall development of society with their own resources.

3.6 Social Responsibility of Power Companies for Customers

The electric power company that produces electricity must respect the customer, on the one hand, understand the needs and wants of customers and try to meet customer needs.

Research Design

1 Selection and Definition of Variables

1.1 Explained Variable: An Indicator of Corporate Financial Performance

This article will use financial indicators to represent the financial performance of the company as the explanatory variables

1.2 Explanatory Variables: Corporate Social Responsibility Indicators

1) Shareholder Responsibility Indicator: Identity of shareholders' responsibility: Shareholders are business owners. Corporate responsibility to shareholders is to plan a more profitable development plan for the organization so that shareholders can gain more wealth by holding or selling corporate shares.

2) Employee Responsibility Indicator: This article selects the employee compensation ratio. This indicator mainly measures the proportion of employees' compensation to operating income.

3) Government Responsibility Indicator: This article selects the tax expense ratio. The higher the value of this indicator, it means that the enterprise actively operates in good faith and pays taxes in full according to the government requirements, performs its responsibilities to the government better.

4) Environmental Responsibility Indicator: This article selects the ratio of Penalty expense. This indicator mainly emphasizes the requirement for companies to reduce noise, pollutants, and waste and waste emissions.

5) Social Welfare Responsibility Indicator: This article selects the donation expense ratio. This indicator mainly reflects whether the enterprise actively participates in social public welfare activities, donates money and supplies, and supports social public welfare undertakings.

6) Customer Responsibility Indicator: This article selects the operating cost ratio.

1.3 Control Variable

This paper chooses the total asset logarithm as the measure of company size. At the same time, considering that this article uses the return on total assets as the explanatory variable, and these two indicators are used as control variables for research and analysis.

2 Selection of Samples and Data Sources

In this paper, the listed power companies in Shanghai and Shenzhen stock market are used as research samples.

Variable	Variable meaning	Variable symbol	Financial indicator	Financial indicator formula
Explained variable	Financial Performance	ROA	Return on total assets	Return on total assets = net profit before interest / taxes / total assets
Explanatory variables	Shareholder responsibility	EPS	Earnings per share	Earnings per share = (net profit-preferred stock dividend) / number of ordinary shares outstanding.
	Employee responsibility	ECR	Employee compensation ratio	Employee compensation ratio = Employees payable / Business income.
	Government responsibility	TER	Tax expense ratio	Tax expense ratio = tax payable / operating income.
	Environmental responsibility	PER	Penalty expense ratio	Penalty expense ratio = confiscated expenditure / operating income.
	Social welfare responsibility	DER	Donation expense ratio	Donation expense ratio = public welfare expenditure / operating income.
	Customer Responsibility	OCR	Operating cost ratio	Operating cost ratio = operating cost / operating income.
Control variable	Company Size	LNSE	Natural logarithm of total assets	Natural logarithm of total assets=ln (e^ total assets)
	Financial performance for the previous year	PYROA	Return on total assets in the previous year	Return on total assets in the previous year = Net profit before interest and taxes in the previous year / Total assets in the previous year

3 Model Establishment

This paper considers that the financial performance indicators of the company and the social responsibility measures of different stakeholders assume a linear relationship in financial performance, and established a multivariate linear regression model for empirical research and analysis of this topic as follows:

$$ROA=\alpha+\beta 1EPS+\beta 2ECR+\beta 3TER+\beta 4PER+\beta 5DER+\beta 6OCR+\beta 7PYROA+\beta 8LNSE+\varepsilon$$

Where α is a constant term, β1 to β8 are the coefficients of each explanatory variable and the control variable, and ε is a random interference term.

Research Methodology

1) Literature Research Method

This paper defines the connotation of corporate social responsibility and financial performance, reviews relevant perspectives, establishes a research framework, and proposes corporate social responsibility to companies Whether there is a positive impact on financial performance.

2) Theoretical Research Method

This paper conducts a multi-dimensional analysis of the relationship between corporate social responsibility and corporate financial performance, puts forward Research hypotheses.

3) Empirical Research Method

This article analyzes the impact of corporate social responsibility on corporate financial performance through theoretical analysis, proposes research hypotheses

Data Collection Procedures

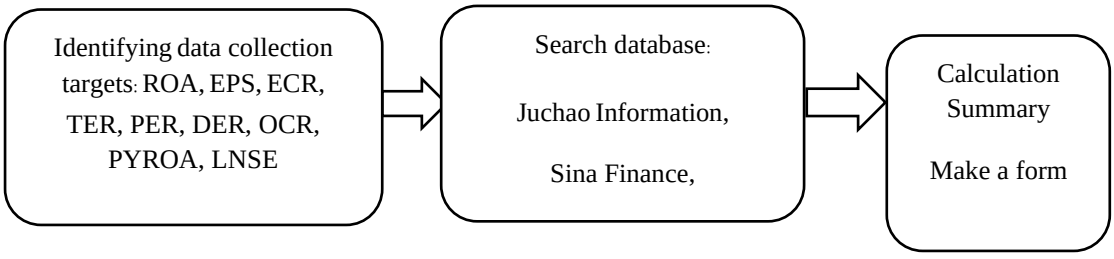

Figure 3-1. Data collection procedures

Data Analysis Procedures

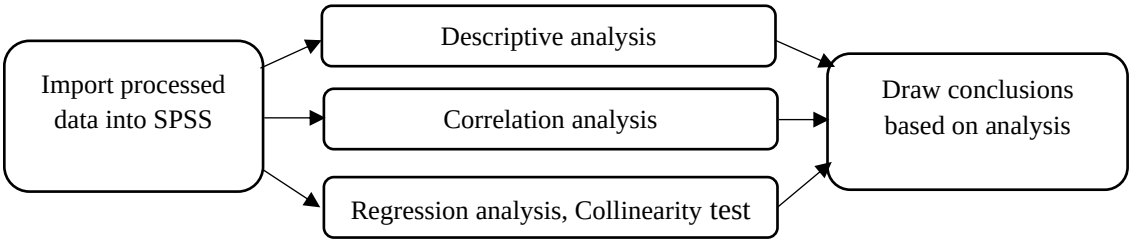

Figure 3-2. Data analysis procedures

Organization of The Research Chapters

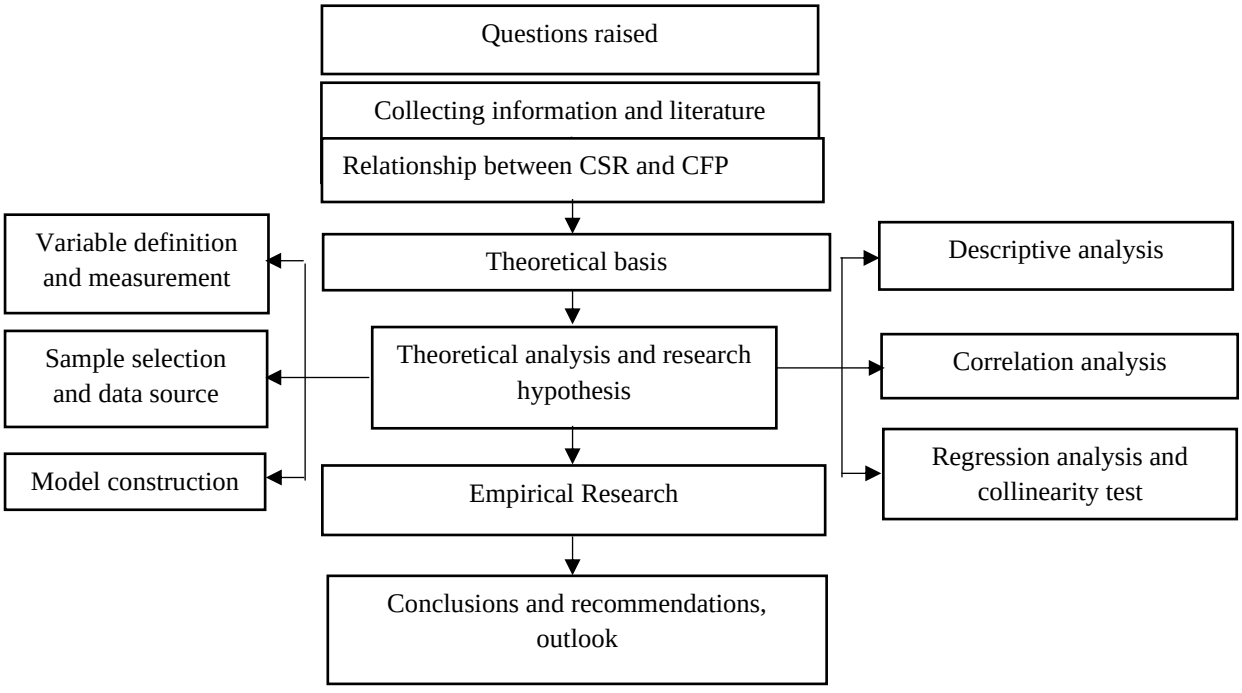

Figure 1-2. Organization of Route

Findings and Discussion

Collect Data and Summarize Data

After manual sorting and collecting, the relevant data of the 50 companies of China's State-controlled Power Shanghai and Shenzhen in 2018 were processed as follows:

Sample company code\variable	ROA	EPS	ECR	TER	PER	DER	OCR	PYROA	LNSE
sz000690	2.3717	0.21	0.5708	7.0947	0	0.5829	68.4191	0.6225	14.59
sh600674	11.8079	0.811	5.5855	8.0248	0	0.127	50.1265	11.8165	14.98
sh601991	1.0658	0.0718	0.2016	1.4905	0.0154	0.0165	84.3305	1.0448	17.18
sz000958	1.4238	0.13	0.2133	1.0393	0	0	86.5176	1.079	13.89
sz000791	2.6632	0.4996	1.6172	1.6155	0.0231	0.005	51.4141	1.3298	14.46
sz000899	2.5304	0.19	0.3	0.9688	0	0.0644	88.2343	0.221	13.54
sh600979	3.1841	0.2655	4.6879	2.7415	0.2435	0.0113	68.7751	3.568	13.59
sh600098	2.0619	0.2571	2.0254	0.4816	0.0029	0.0219	89.9619	2.421	15.16
sh600310	0.7466	0.0827	0.318	0.3232	0.0033	0.00008	93.6052	0.8427	14.18
sh600236	6.2164	0.3933	0.1866	6.8107	0.012	0.0976	48.6892	6.9411	15.34
sh600795	0.6618	0.061	0.5843	1.8399	0.0518	0.0779	81.392	1.0136	17.12
sz000883	4.0309	0.278	1.1949	1.3687	0.0073	0.024	79.7843	4.7117	15.39
sz000722	2.3367	0.2	8.3456	7.8069	0	0.0109	56.5341	2.5142	12.68
sh600027	1.0296	0.157	0.2906	1.8163	0	0	87.6476	0.3639	16.93
sh600025	3.5977	0.32	0.2386	2.2859	0	0.1043	49.0821	1.4367	16.64
sz000875	0.672	0.05	0.2191	0.7267	0.0718	0.0025	81.0102	-0.9031	15.2
sz000600	2.0999	0.241	1.5006	1.3546	0.0467	0	83.8648	1.0341	14.97
sh601016	2.8818	0.124	0.312	2.0738	0	0.0368	46.658	2.4361	14.58
sh600578	1.2476	0.13	1.2857	0.774	0.0236	0.0103	89.2948	0.4534	15.74
sh600644	2.6761	0.1502	7.4853	2.8857	0.0955	0.0849	76.5872	2.0097	12.72
sh600131	4.2578	0.2	1.6172	1.0476	0	0.116	83.8255	3.2885	12.39
sh600101	3.125	0.31	0.9292	1.3439	0.0225	0	85.8952	3.4064	12.66
sh600863	2.5413	0.13	0.7449	2.4537	0	0.0008	78.5704	1.9259	15.27
sz002039	3.2543	1.2043	0.0998	10.269	0	0.0419	49.3821	3.1394	14.33
sh600116	3.9928	0.22	15.937	1.6035	0.0119	0.0116	79.4582	6.1331	13.15
sh600021	3.801	1.1171	0.5134	2.2251	0.0133	0	78.5554	2.0946	16.1
sz000601	3.303	0.28	0.5793	1.271	0.0097	0.0859	77.7463	5.0942	13.82
sz000027	0.8828	0.17	3.9626	8.6959	0.0047	0.0359	73.3718	1.2239	15.96
sh600509	0.1824	0.043	0.8145	0.3653	0.1082	0.00007	78.0794	0.8607	14.58
sh600780	1.8331	0.1954	3.9031	1.2601	0.0967	0.0047	85.7409	0.6452	13.99
sz000543	2.3073	0.31	0.3576	1.8883	0.023	0.0024	93.9916	0.2957	14.88
sh600995	10.9855	0.62	0.6907	0.3747	0.0133	0.0063	70.1199	5.9349	12.52
sh600505	2.5762	0.1729	1.6817	1.6152	0	0.0939	75.8543	1.8321	12.62
sz001896	-4.1334	-0.574	0.6482	0.4035	0.0081	0.0006	103.29	0.1481	14.57
sz000767	0.0999	0.1038	0.3632	1.2702	0.3406	0.0061	94.4532	-4.3464	15.43
sh600900	7.6126	1.0278	0.2031	4.382	0.0001	0.2117	37.1093	7.4461	17.2
sz000966	2.3039	0.1883	0.7494	4.0417	0.0106	0.0029	90.0358	-1.3131	13.75
sh600023	3.8891	0.3	0.3629	1.3105	0.0013	0.0293	90.5132	4.3385	16.21
sh601985	2.7244	0.3043	1.1555	4.6088	0.2641	0.0092	58.2446	2.7463	17.29
sh600744	0.3121	0.03	0.3571	1.673	0.0074	0.0176	92.9478	-6.2595	14.38
sh600969	0.8578	0.1039	0.8495	1.1698	0	0.0718	84.4683	0.8544	14.07
sh600011	0.6156	0.07	0.4291	0.868	0	0.0115	88.6956	0.6239	17.51
sz000531	1.0507	0.1196	0.5153	6.4972	0.0099	0.0591	81.7909	2.2017	13.85
sh600452	7.8808	1.56	1.1226	0.513	0	0	80.6506	5.7606	13.07
sh600758	0.7032	0.09	3.6072	0.6255	0.0703	0	84.9402	2.7925	14.24
sh600982	3.7436	0.2068	0.3101	1.1805	0.0141	0.0029	87.0126	2.7839	13.09
sz000539	1.2611	0.09	1.3086	1.4485	0.0463	0.0107	88.4642	1.606	15.81
sz000037	0.4023	0.032	2.3827	0.8488	0	0.0005	92.9555	0.0104	12.71
sz000695	4.3535	0.1644	0.0254	1.1838	0	0.0387	90.8135	1.4474	11.36
sh600719	0.1478	0.0067	0.0439	0.3456	0.047	0	87.9462	0.2071	12.24

Analyze Data

From the table 4.2, ROA, the data fluctuations are small, indicating that the return on total assets is appropriate as an explanatory variable. EPS, the standard deviation is 0.3478467, which indicates that the returns to shareholders from different companies are significantly different. ECR, indicate that different companies have different treatments for employees, and the overall performance is relatively stable.

Descriptive analysis

	N	Minimum	Maximum	Mean	Standard deviation
ROA	50	-4.1334	11.8079	2.634908	2.6693318
EPS	50	-.5740	1.5600	.256570	.3478467
ECR	50	.0254	16.0000	1.669816	2.7631382
TER	50	.3232	10.0000	2.400756	2.4472803
PER	50	.0000	.3406	.034400	.0698535
DER	50	.0000	.5829	.043007	.0896400
OCR	50	37.1093	103.2895	78.137012	15.2566931
PYROA	50	-6.2595	11.8165	2.037584	2.8359763
LNSE	50	11.3600	17.5100	14.565400	1.5166911

Valid N (list status)	50					

Table 4-2. Descriptive Statistics

		ROA	EPS	ECR	TER	PER	DER	OCR	PYROA	LNSE
ROA	Pearson Correlation	1	.708**	.139	.259	-.172	.202	-.545**	.781**	-.126
	Saliency (bilateral)		.000	.336	.069	.231	.159	.000	.000	.383
	N	50	50	50	50	50	50	50	50	50
EPS	Pearson Correlation	.708**	1	-.004	.333*	-.113	.105	-.509**	.504**	.065
	Saliency (bilateral)	.000		.977	.018	.433	.468	.000	.000	.655
	N	50	50	50	50	50	50	50	50	50
ECR	Pearson Correlation	.139	-.004	1	.184	.072	-.050	-.123	.309*	-.266
	Saliency (bilateral)	.336	.977		.201	.617	.728	.393	.029	.062
	N	50	50	50	50	50	50	50	50	50
TER	Pearson Correlation	.259	.333*	.184	1	-.065	.407**	-.607**	.301*	.123
	Saliency (bilateral)	.069	.018	.201		.655	.003	.000	.034	.395
	N	50	50	50	50	50	50	50	50	50
PER	Pearson Correlation	-.172	-.113	.072	-.065	1	-.161	.023	-.228	.128
	Saliency (bilateral)	.231	.433	.617	.655		.265	.875	.111	.377
	N	50	50	50	50	50	50	50	50	50
DER	Pearson Correlation	.202	.105	-.050	.407**	-.161	1	-.344*	.166	.056
	Saliency (bilateral)	.159	.468	.728	.003	.265		.014	.248	.698
	N	50	50	50	50	50	50	50	50	50
OCR	Pearson Correlation	-.545**	-.509**	-.123	-.607**	.023	-.344*	1	-.545**	-.181
	Saliency (bilateral)	.000	.000	.393	.000	.875	.014		.000	.209
	N	50	50	50	50	50	50	50	50	50
PYROA	Pearson Correlation	.781**	.504**	.309*	.301*	-.228	.166	-.545**	1	-.037
	Saliency (bilateral)	.000	.000	.029	.034	.111	.248	.000		.799
	N	50	50	50	50	50	50	50	50	50
LNSE	Pearson Correlation	-.126	.065	-.266	.123	.128	.056	-.181	-.037	1
	Saliency (bilateral)	.383	.655	.062	.395	.377	.698	.209	.799	
	N	50	50	50	50	50	50	50	50	50

**. Significant correlation at the 0.01 level (both sides).

*. Significant correlation at 0.05 level (both sides).

Table 4-3. Correlation

TER indicates that the state the stability of the responsibilities of the listed power companies to the government is better. PER, some companies perform poorly in environmental responsibilities in 2018; the standard deviation is 0. 0698535, which indicates that state-controlled listed power company's performance of environmental responsibility is very stable. DER, indicating that the overall performance is very stable. OCR, the average value is 78.137012, which indicates that the overall operating cost of the power industry is relatively high; the standard deviation is 15.52566931, which also indicates that different power companies perform Customer responsibilities vary widely. EPS, indicates that the returns to shareholders from different companies are significantly different; the standard deviation the value is small, which indicates that the company's performance of social responsibility to shareholders is stable.

Correlation Analysis

A Pearson correlation coefficient test on the correlation of the variables. The results are shown in Table 4-3. ROA and EPS have a significant positive correlation at the level of 1%, indicating that the better the financial performance of state-controlled power companies, the corresponding the higher the earnings per share.

Regression Analysis

The results of the regression analysis are shown in the following table: The regression coefficient of EPS on ROA is positive and significant at the level of 1%; it indicates that when the state-controlled power enterprise fulfills its responsibility to shareholders, it creates greater value for shareholders, and also Will create more wealth for the company, that is, the company's performance of social responsibility to shareholders will improve the company's financial performance.

Model	R	R square	Adjust R square	Standard estimate error
1	.883[a]	.781	.738	1.3671542

a. Predictor: (constant), LNSE, PYROA, DER, PER, ECR, TER, PS, OCR.

Table 4-4. Model summary

model	sum of squares	df	Mean square	F	Sig.
regress	272.508	8	34.063	18.224	.000[b]
Residual	76.634	41	1.869		
total	349.141	49			

a. Dependent variable: ROA

b. Predictor: (constant), LNSE, PYROA, DER, PER, ECR, TER, EPS, OCR.

Table 4-5. Relationship between CSR and ROA

model		Non-standardized coefficient		Standard coefficient	t	Sig.	Collinear statistics	
		B	Standard error	trial version			Tolerance	VIF
1	(constant)	6.711	2.916		2.301	.027		
	EPS	3.199	.709	.417	4.514	.000	.628	1.593
	ECR	-.063	.083	-.065	-.761	.451	.733	1.365
	TER	-.122	.108	-.112	-1.138	.262	.551	1.816
	PER	1.379	3.012	.036	.458	.650	.862	1.161
	DER	2.584	2.481	.087	1.042	.304	.771	1.296
	OCR	-.019	.020	-.108	-.959	.343	.421	2.376
	PYROA	.521	.096	.553	5.406	.000	.511	1.958
	LNSE	-.291	.140	-.165	-2.085	.043	.851	1.175

a. Dependent variable: ROA

Table 4-6 Coefficient

The following conclusions can be drawn from Table 4-6

The regression coefficient of ECR on ROA is negative, not significant, and has a small negative impact; it indicates that the benefits provided by state-controlled power companies to employees have not yet achieved the purpose of improving corporate financial performance. The regression coefficient of TER to ROA is negative, not significant, and the negative impact is small. It shows that the state-controlled power companies have contributed to the government's fiscal revenue and have not improved their financial performance. The regression coefficient of PER to ROA is positive and not significant. It shows that the state-controlled power companies do not pay enough attention to environmental protection, which reflects to a certain extent the better the financial performance of the enterprise, the more fines will be paid. This situation is unreasonable. The regression coefficient of DER on ROA is positive and not significant. It shows that the more voluntary donations such as public charitable donations from companies, the more support they can get to a certain extent, creating more space for the development of the company, which means that the company's fulfillment of social responsibility for social welfare will improve the company financial performance. The regression coefficient of OCR on ROA is negative and not significant. However, it shows that when the financial performance index of the company rises steadily, the operating costs will be reduced accordingly; it shows that consumers will feel the good product quality and services of the company, and have

produced long-term or larger business relationships, representing the company's fulfillment of social responsibility to customers will improve the financial performance of the business.

Collinearity Test

According to Table 4-7, the other eigenvalues are much larger than 0 and the condition index is much smaller than 30. However, when the eigenvalues are close to 0 and the condition coefficient is larger than 30, only constants and control variables the variance of LNSE (company size) is greater than 50%, indicating that there is no co-linearity among the explanatory variables, so the regression analysis based on the research model in this article is meaningful.

model	dimension	Eigenvalues	Condition index	Variance ratio								
				(constant)	EPS	ECR	TER	PER	DER	OCR	PYROA	LNSE
	1	5.229	1.000	.00	.01	.01	.01	.01	.01	.00	.01	.00
	2	1.158	2.125	.00	.03	.00	.01	.26	.09	.00	.04	.00
	3	.821	2.524	.00	.01	.23	.00	.01	.29	.00	.07	.00
	4	.656	2.823	.00	.18	.34	.01	.00	.19	.00	.00	.00
	5	.569	3.031	.00	.10	.01	.02	.56	.02	.00	.01	.00
	6	.320	4.045	.00	.02	.01	.49	.07	.21	.00	.29	.00
	7	.230	4.766	.00	.59	.30	.21	.02	.15	.00	.43	.00
	8	.014	19.571	.01	.03	.06	.20	.06	.01	.55	.11	.31
	9	.003	41.725	.99	.03	.05	.04	.00	.02	.45	.06	.69

a. Dependent variable: ROA

Table 4-7. Collinear diagnosis

According to the correlation analysis in Table 4-3, to sum up, the performance of social responsibility of state-controlled power companies have a positive impact on corporate financial performance.

Conclusion and Recommendations

1) According to financial statements and corporate social responsibility reports of energy companies, most energy companies strictly comply with national laws and regulations, respond to national environmental protection policies and claims and increase investment and try on Environmental protection.

2) Corporate social responsibility at present and current financial results have a significant positive relationship.

3) The approval and support of the people is a powerful external force to promote companies to fulfill their social responsibilities. Companies actively fulfill their social responsibilities, which helps companies to establish a good image. Gaining a higher reputation in the society will help increase corporate profits and enable the company to achieve rapid development, which in turn will encourage companies to perform their social responsibilities more actively.

4) Promote broad participation of mass media, industrial groups and social organizations and strengthen social governance Based on the good work of the government.

Recommendations

1) Accelerate the construction of the corporate social responsibility legal system, formulate laws and regulations related to corporate social responsibility, and promote the implementation of corporate social responsibility in accordance with the law.

2) All electric power companies should establish a sense of corporate social responsibility and put corporate social responsibility in every link of corporate development.

3) Continuously improve the people's awareness of social responsibility, and gradually realize the self-formation mechanism.

4) Continuously promote the extensive participation of the mass media, industry groups, and social organizations, and strengthen social supervision.

Outlook

We can conduct in-depth research in the following areas:

1. Lacking its general definition Chinese scholars can learn from foreign theoretical research based on China's national condition and the background of Chinese culture, propose the creation of social responsibility theory suitable for China, establish a social responsibility system.

2. This research mainly uses the content analysis method, that is, the analyzed data mainly comes from corporate financial statements, notes, corporate social responsibility reports,

etc. The data source is relatively single, and only some quantitative research can be carried out. If the quantitative analysis and qualitative analysis are combined, it is believed that the analysis results will have stronger credibility and practicality.

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