RESEARCH ON THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY ON ENTERPRISE INNOVATION CAPACITY

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Abstract: To explore the relationship between corporate social responsibility and corporate innovation ability, this paper uses methods such as descriptive statistical analysis, correlation analysis, and regression analysis, with corporate social assistance, environmental protection, employee benefits, customer interests, shareholder interests, etc. as independent variables and corporate innovation ability as dependent variable. In addition to controlling variables such as gender, age, educational attainment, years of service, and monthly income, an empirical study was conducted using the data of 396 employees of Company X in Guangzhou, Guangdong Province, China. Through the analysis of the data, it is concluded that environmental protection, customer interests, and shareholder interests in corporate social responsibility have a significant positive impact on corporate innovation ability, among which shareholder interests have the greatest impact on corporate innovation ability, and customer interests have the least impact; Social assistance and employee benefits in corporate social responsibility do not have a significant impact on corporate innovation capacity. It can be seen that enhancing corporate innovation capacity requires the joint promotion of environmental protection, customer interests, shareholder interests and other elements in corporate social responsibility. Based on the findings of the research, it is recommended to strengthen the training and cultural infiltration of social responsibility capabilities and promote the deep integration of social responsibility and corporate innovation strategies.

Keywords: Corporate Social Responsibility, Innovation Ability

Introduction

In the face of the deep penetration and integration of the global and digital, enterprise innovation has become a strategic resource for responding to the technological revolution, leading organizations to achieve sustainable development, and forging core competitive advantages. Most foreign companies are facing a situation where the technology cycle is shortened, consumer sovereignty is highlighted, and intellectual property barriers are becoming increasingly strict, and they have to constantly restructure their value chains through innovation (Jamal& Ehsan,2025). The exponential diffusion of technological

innovation, coupled with the evolution of diverse and individualized market demands, compels enterprises to constantly adjust their innovation paradigms to match the development and changes of the competitive situation. Throughout this process, corporate social responsibility acts as a bridge connecting commercial value and social value. What was originally an "additional obligation" attached to enterprises has been transformed by enterprises into an important means and approach for enterprises to gain competitive advantages and trust capital, and has gradually become one of the indispensable components of enterprise development (Carissa et al., 2023). Social enterprises' fulfillment of social responsibility is also conducive to effective corporate innovation. It helps enterprises continuously optimize resource allocation, improve the relationship network with stakeholders, and strengthen brand resilience and influence, thereby providing a support for corporate innovation beyond technology and products.

In contrast to Western markets, China's institutional and cultural context has fostered unique dynamics between corporate social responsibility (CSR) and innovation. Under the pressures of high-quality development, innovation-driven growth, and dual-carbon goals, Chinese enterprises increasingly align technological breakthroughs with social value creation, integrating CSR into innovation evaluation frameworks (Huang et al., 2023). For example, new energy vehicle companies leverage green technology to establish competitive barriers, enhance brand sustainability, and stimulate consumer demand through carbon capture R&D. Traditional Chinese values emphasizing "harmony between righteousness and profit" , combined with modern business ethics, encourage systemic value creation in CSR practices (Hu Sujuan, 2024). However, structural challenges persist: while leading firms collaborate to build CSR innovation ecosystems, SMEs—particularly in manufacturing, tech startups, and service sectors—face resource constraints. High compliance costs (e.g., environmental governance, labor rights, and tech upgrades), limited access to innovation resources, and talent shortages hinder their ability to compete in the industrial chain or commercialize academic research (Fu Zhijian, 2025). This disparity underscores the uneven distribution of CSR-driven innovation capabilities across China's corporate landscape.

Research Objectives

(1) To explore the impact of corporate social assistance on corporate innovation activities.

(2) To analyze the impact of environmental protection in corporate social responsibility on corporate innovation capacity.

(3) To analyze the correlation between employee benefits under corporate social responsibility and corporate innovation capacity.

(4) To explore the impact of customer value in corporate social responsibility on the innovation level of enterprises.

(5) To analyze the impact of shareholder interests in corporate social work on corporate

innovation.

Research Question

(1) How does corporate social assistance impact corporate innovation activities?

(2) How does environmental protection in corporate social responsibility affect corporate innovation capacity?

(3) What is the correlation between employee benefits under corporate social responsibility and corporate innovation capacity?

(4) How does customer value in corporate social responsibility influence the innovation level of enterprises?

(5) How do shareholder interests in corporate social work affect corporate innovation?

Literature Review

Research on Corporate Social Responsibility

Corporate social assistance refers to an activity where a company, while achieving economic benefits, purposefully engages in social welfare, community service, or assistance to vulnerable groups, thereby promoting its overall efforts in social responsibility and forming a corporate social responsibility system that integrates with society (Zhang&Wang,2023). Corporate social assistance is a form in which enterprises contribute to social development with their own strength, and it is also a process that enables enterprises to create their own social and economic value in the process of fulfilling corporate citizenship (Liu et al., 2024).

In addition, corporate social assistance can play an indirect role in enhancing the innovation capabilities of enterprises by helping them shape a good social image, increase market trust, and through resource leverage and talent attraction, and can pool resources into cross-organizational innovation networks through forms such as cross-border cooperation and public welfare projects. Aguinis & Glavas(2012) argued that enterprises participating in social assistance are more likely to obtain technology licenses from outside; Enterprises involved in social assistance are more likely to form alliances with universities, NGOS, etc. Enterprises involved in social assistance have more external knowledge input into innovation projects. Aguinis & Glavas (2012) pointed out that cross-industry collaboration helps enterprises break through barriers between fields (Ballesteros et al., 2017). At the same time, companies can apply solutions to technical problems to their core business innovation, creating a good situation where public welfare innovation and business innovation interact.

According to the resource-based view, from the perspective of corporate social assistance, although it does not seem to imply that the enterprise directly invests in innovation resources, corporate social assistance also brings itself other unique intangible resources. Since corporate social assistance is an institutional resource, it helps to form a stable network of enterprise-community relationships, which can bring better brand effects to enterprises, reduce policy risks, and provide more convenient

access to local resources (Barney,2001).

The so-called "end-of-pipe treatment" refers to a strategic behavior in which enterprises, through implementing green technological innovation, establishing resource recycling systems, and controlling their carbon footprints, reduce the impact of their own operational activities on the environment while also bringing a certain degree of environmental benefits, thereby achieving a win-win situation for both enterprises and the environment (Elkington, 1998).

In the course of production and operation, enterprises should formulate forward-looking environmental protection strategic plans on the basis of their future development, minimize the consumption of resources and the damage to the environment, explore environmentally friendly development technology routes and development paths, strive to achieve the goal of sustainable ecosystem while developing the economy, and coordinate economic goals with the ecosystem. Create an environmentally friendly development model across the entire society and enhance green production at the enterprise level. (Green&Lee,2024). Greening can increase the efficiency of innovation in the production process.

Research on the Innovation Capacity of Enterprises

In recent years, the relationship between corporate social responsibility (CSR) and innovation capability has become a key focus in both academic and practical research. Traditional views suggest that CSR may divert resources from R&D, thereby inhibiting innovation (Friedman, 1970). However, a growing body of research indicates that CSR can enhance innovation by improving corporate reputation, strengthening stakeholder relationships, and facilitating knowledge sharing (Porter & Kramer, 2011). This synergistic effect is particularly pronounced in the Chinese context. For instance, Huang et al. (2023) argue that under the dual-carbon goals and high-quality development policies, Chinese firms increasingly integrate CSR into their innovation strategies, leveraging green technology R&D to build long-term competitive advantages. Similarly, Hu Sujuan (2024) highlights how the traditional Chinese concept of "harmony between righteousness and profit" (义利并举) encourages firms to incorporate social value creation into their innovation systems, forming a unique "responsibility-driven innovation" model. However, this relationship is heterogeneous: while large firms with abundant resources can leverage CSR to build innovation ecosystems, SMEs face dual constraints of high CSR costs and limited resource accessibility (Fu Zhijian, 2025).

From a mechanistic perspective, CSR influences innovation capability through three primary pathways: First, CSR enhances corporate legitimacy and reputation capital, reducing market uncertainty and thereby incentivizing long-term innovation investments (Surroca et al., 2010). Second, CSR practices (e.g., environmental investments, employee welfare) foster organizational learning, facilitating knowledge integration and technological breakthroughs (McWilliams & Siegel, 2001). Third, policy pressures (e.g., China's dual-carbon targets) compel firms to align innovation with CSR compliance, creating a "regulation-innovation" virtuous cycle (Li Weiyang, 2022). However, some

scholars caution that excessive CSR may lead to "mission drift," diverting resources away from innovation (Benner & Tushman, 2003). Future research should further explore the nonlinear relationship between CSR and innovation across industries and firm sizes, while incorporating cross-cultural comparisons to uncover the moderating effects of institutional and cultural contexts.

Research on the Direct Relationship between Corporate Social Responsibility and Corporate Innovation Capacity

From the resource-based view, corporate social assistance provides intangible resources like stable community networks, enhanced brand reputation, and policy risk reduction (Barney, 2001). It also attracts talent and fosters external collaborations, enriching dynamic capabilities and reducing transaction costs (Teece et al., 1997). These institutional resources ultimately enhance innovation efficiency and resource utilization.

Stakeholder theory suggests environmental protection fulfills commitments to key stakeholders (government, communities, consumers), earning policy support and community trust (Mitchell et al., 1997). This reduces regulatory risks and resource costs while securing government incentives and local cooperation. These benefits free up resources for R&D, ultimately boosting innovation capabilities.

Employees are core stakeholders whose improved treatment enhances skills, motivation and satisfaction (Dolenec & Vodeb, 2020). Competitive benefits attract/retain talent while fair promotion systems boost loyalty and belonging. This fosters internal collaboration and knowledge sharing, ultimately driving innovation efficiency (Fernandes et al., 2022).

Customers represent vital external resources that provide market insights and demand signals when their interests are prioritized (Helfat et al., 2009). Deep customer understanding enables precise innovation, while feedback-driven systems accelerate product iteration and strengthen loyalty (Barney, 2001). This stable customer base generates sustainable revenue, freeing capital for continuous innovation investments.

As key decision-makers, shareholders enable strategic resource allocation when their interests are properly addressed through mechanisms like equity incentives (Barney, 2001). Aligning shareholder interests with CSR increases innovation success rates while their support reduces internal resistance to change (Mitchell et al., 1997). This synergy facilitates smoother implementation of innovation Based on the above research foundation, the following hypotheses are proposed:

H1: Social assistance in corporate social responsibility has a significant impact on the innovation ability of enterprises.

H2: Environmental protection in corporate social responsibility has a significant impact on a company's innovation capability.

H3: Employee treatment in corporate social responsibility has a significant impact on a company's innovation capability.

H4: Customer interests in corporate social responsibility have a significant impact on a

company's innovation capabilities.

H5: Shareholder interests in corporate social responsibility have a significant impact on a company's innovation capabilities strategies and attracts mission-aligned investors.

Methodology

From the perspective of the investigation and research, the subjects of this study were 15,830 employees of X Enterprise in Guangzhou, Guangdong Province, China. Since this enterprise is one of the leading enterprises in China 's new energy industry, has good development, and has relatively excellent innovation ability and corporate image, this enterprise was determined as the observation point through sampling for data analysis. To draw the corresponding conclusions. After sampling, the lower limit of the sample for this survey is 390. To avoid errors caused by incomplete responses to the questionnaire, the sample size was increased to 400 while ensuring valid questionnaires.

By using randomly sampled subjects, complete questionnaire entry and generate electronic questionnaire access links through the professional online questionnaire platform Wenjuanxing, and push them to the corresponding enterprise WeChat groups to distribute questionnaires to the research subjects in the enterprise groups; Secondly, during the design of the questionnaire, the principle of strict confidentiality was adhered to, and during the collection process, all information was ensured not to disclose business secrets and personal privacy.

This study used the Corporate Social Responsibility Scale of Harold et al. (2016) and the Enterprise Innovation Capability Maturity Scale of Zhang Jun et al. (2014) as the subjects, and analyzed the impact of corporate social responsibility on enterprise innovation capability through the collected data to explore the relationship between the two. The questionnaire design consists of two parts and uses the Likert five-point scale for the scale design, where 1 represents "completely incompatible" and 5 represents "fully compliant".

Psychological Capital Questionnaire. This study uses the psychological capital questionnaire of Du & Jin (2021) as the research tool, which was revised according to the psychological capital scale developed by Luthans et al. (2007) and the characteristics of college teachers. This questionnaire consisted of 24 questions, including four dimensions: self-efficacy, hope, toughness, and optimism, and has been verified to have good reliability and validity.

Results

Demographic Analysis of Questionnaire Participants

According to the descriptive statistics of gender, age, education, years of work, and monthly income : ① Gender, there were 192 males, accounting for 48.5% of the total sample, and 204 females, accounting for 51.5% of the total sample. The total gender was 100%, with 48.5% being male. ② Age: 194 under 30 years old, 49.0% of the total sample, 116 between 31 and 40 years old, 29.3% of the total

sample, 54 between 41 and 50 years old, 13.6% of the total sample, and 32 over 51 years old, 8.1% of the total sample. The cumulative percentages for each age group were 49.0%, 78.3%, 91.9%, and 100.0% respectively. ③ Educational attainment: 24 high school (technical secondary school) and below, 6.1% of the total sample size; 123 junior college, 31.1% of the total sample size; 128 bachelor's degree, 32.3% of the total sample size; 121 master's degree and above, 30.5% of the total sample size The cumulative percentages of people with different educational qualifications were 6.1%, 37.2%, 69.5% and 100.0% respectively. ④ Years of work: 181 with 5 years or less, accounting for 45.7% of the total sample. There were 95 people with 6-10 years of work experience, accounting for 24.0% of the total sample size; There were 61 people with 11-20 years of experience, accounting for 15.4% of the total sample size; There were 59 people with more than 21 years of work experience, accounting for 14.9% of the total sample. The cumulative percentages for each segment were 45.7%, 69.7%, 85.1%, and 100.0% respectively. ⑤ Monthly income of less than 5,000 yuan: 65 people, 16.4% of the total sample; There were 92 people with monthly incomes ranging from 5,000 to 10,000 yuan, accounting for 23.2% of the total sample size; There were 114 people with a monthly income of 10,000 to 20,000 yuan, accounting for 28.8% of the total sample. There were 125 people with a monthly income of more than 20,000 yuan, accounting for 31.6% of the total sample. The cumulative percentages for each segment were 16.4%, 39.6%, 68.4% and 100.0% respectively.

Descriptive Statistics of Each Variable

1) Descriptive statistics were conducted on 396 valid samples to specifically analyze respondents' perceived levels of corporate social responsibility and corporate innovation ability evaluation. The key descriptive statistics indicators such as the mean and standard deviation of each indicator were mainly counted to show whether there were significant differences in the evaluation of corporate social responsibility and corporate innovation ability among the samples and the extent of the differences in each aspect. The following are the results of the descriptive statistical analysis, presented in tabular form to clearly and intuitively show the significance of each part of the data. See Table 1for the detailed analysis.

Table 1: Descriptive Statistical Analysis of Variables

Dimension	N	M	SD	Interpretation
Social assistance	396	3.48	1.025	Moderate
Environmental protection	396	3.57	0.959	High
Employee benefits	396	3.54	0.942	High
Customer benefits	396	3.56	0.939	High
Shareholder interests	396	3.68	0.749	High
Innovation ability	396	3.63	0.735	High

In this paper, the Likert 5.0 scale was used to conduct descriptive statistics on two variables, including the mean and standard deviation. In the descriptive statistical analysis, if the mean was greater than 3, it was considered a high level; Based on the data analysis of the descriptive statistics of each study variable in Table 4.2, it is known that the mean of each variable is greater than 3.0, indicating that employees' evaluation of corporate social responsibility and corporate innovation ability is relatively high. The specific mean and standard deviation of each variable are as follows:

The average score for social assistance was 3.48, and the standard deviation was 1.025. Therefore, there is a certain difference in the evaluation level of social assistance by employees. The average score of employees' evaluation of corporate environmental protection was 3.57, with a standard deviation of 0.959, indicating that there were some differences in the overall evaluation level of corporate environmental protection in the sample. The average of employee treatment was 3.54 points, with a standard deviation of 0.942 points, indicating a gap in the overall evaluation of employee treatment in the sample. The average customer benefit score was 3.56 points, with a standard deviation of 0.939 points, indicating that there were also individual differences in the overall sample's evaluation of customer benefits. The average score of the shareholder benefit dimension was 3.68, the dimension with the highest mean score, and the standard deviation was 0.749, indicating that employees' evaluations of the company's protection of shareholders' interests were relatively stable overall, but there were individual differences. The average score for innovation ability was also high, at 3.63, with a standard deviation of 0.735, indicating that the sample was relatively stable in terms of the score for enterprise innovation ability.

Differences Analysis on the Levels of Differential Corporate Social Responsibility and Corporate Innovation Capability

The empirical analysis reveals differentiated impacts of demographic variables on CSR and innovation capability perceptions. While gender, age, and education level showed no significant influence across all dimensions ($p>0.05$), both work experience and monthly income demonstrated statistically significant effects ($p<0.05$). Specifically, ANOVA results indicated that employees with different tenure lengths and income levels exhibited significantly divergent evaluations of all CSR components (social assistance, environmental protection, employee welfare, customer interests, shareholder interests) and innovation capability. The F-values ranged from 1.822 to 2.933 for work experience and 2.038 to 2.962 for income levels, with all p-values below the 0.05 threshold. This suggests that practical work exposure and economic factors may shape organizational perceptions more substantially than basic demographic characteristics. The findings highlight the nuanced role of career-stage and socioeconomic factors in mediating CSR-innovation evaluations within enterprises.

Correlation Analysis

According to the correlation analysis of variables in Table 4.8, this study employed Pearson correlation analysis to explore the correlation between variables related to corporate social

responsibility and corporate innovation ability. The analysis showed that there was a significant positive correlation among the variables at the significance level of 0.01 (two-tailed).Specifically, the Pearson correlation coefficient between social assistance and environmental protection was 0.900 (P<0.01), indicating a high positive correlation between the two, that is, as social assistance activities increase, environmental protection performance also improves accordingly. Likewise, social assistance was associated with employee benefits at 0.847 (P<0.01), with customer interests at 0.829 (P<0.01), with shareholder interests at 0.404 (P<0.01), and with innovation capabilities at 0.622 (P<0.01). Both showed a significant positive correlation. The correlation between environmental protection and other variables also showed a high degree of consistency. The correlation coefficient between environmental protection and employee benefits was 0.862 (P<0.01), with customer interests was 0.838 (P<0.01), with shareholder interests was 0.432 (P<0.01), and with innovation ability was 0.649 (P<0.01) Both indicated a significant positive correlation between the variables. The correlation coefficients between employee benefits and customer interests, shareholder interests, and innovation capabilities were 0.814 (P<0.01), 0.410 (P<0.01), and 0.594 (P<0.01), respectively, indicating a significant positive correlation between the improvement of employee benefits and the enhancement of customer interests, shareholder interests, and enterprise innovation capabilities. The correlation coefficients between customer interests and shareholder interests and innovation capabilities were 0.411 (P<0.01) and 0.618 (P<0.01) respectively, indicating a positive correlation between the increase in customer interests and the guarantee of shareholder interests as well as the improvement of enterprise innovation capabilities. The correlation coefficient between shareholder interests and innovation capabilities was 0.837 (P<0.01), indicating a significant positive correlation between the increase in shareholder interests and the improvement of enterprise innovation capabilities. The data analysis showed significant positive correlations among variables such as social assistance, environmental protection, employee benefits, customer interests, shareholder interests, and innovation capabilities.

Table 2: Correlation between Psychological Capital and Deviant Behavior of Teachers

	IV1	IV2	IV3	IV4	IV5	DV
IV1	1	.900**	.847**	.829**	.404**	.622**
IV2		1	.862**	.838**	.432**	.649**
IV3			1	.814**	.410**	.594**
IV4				1	.411**	.618**
IV5					1	.837**
DV						1

Note: *p<.05, **p<.01, ***p<.001

IV1: Social assistance, IV2: Environmental protection, IV3: Employee benefits, IV4: Customer interests, IV5:Shareholder interests DV: Innovation ability

Regression Analysis

The linear regression analysis (Table 3) reveals significant differential impacts of CSR dimensions on corporate innovation capability while controlling for demographic variables. Environmental protection (β=0.200, p=0.001), customer interests (β=0.120, p=0.007), and particularly shareholder interests (β=0.675, p<0.001) demonstrated statistically significant positive effects on innovation capacity. In contrast, social assistance (β=0.095, p=0.088) showed marginal non-significance, while employee benefits (β=-0.031, p=0.520) exhibited no significant impact. Demographic control variables (gender, age, education, tenure, and income) all proved statistically insignificant (p>0.05). The model demonstrated strong explanatory power with R²=0.816 (adjusted R²=0.812), and variance inflation factors (VIFs) below 10 confirmed the absence of multicollinearity. These findings suggest that while environmental initiatives, customer-centric practices, and especially shareholder value creation significantly drive innovation, workforce-related CSR aspects may require alternative implementation approaches to enhance their innovation impact.

Table 3: Regression Analysis of The Dimensions of Corporate Social Responsibility on The Innovation Capacity of Enterprises

Model	Unstandardized coefficients		Standardization Coefficients	t	Significance	R²	Adjust R²	VIF
	B	Standard Error	Beta					
1 DV	.030	.128		.233	.816	0.816	0.812	
IV1	.068	.040	.095	1.713	.088			6.361
IV2	.153	.045	.200	3.381	.001			7.157
IV3	-.024	.037	-.031	-.643	.520			4.706
IV4	.094	.035	.120	2.721	.007			4.019
IV5	.662	.024	.675	27.364	.000			1.248
Control variables								
Gender	-.018	.033	-.012	-.555	.579			1.024
Age	.030	.017	.038	1.719	.086			1.028
Educational background	.011	.018	.013	.593	.554			1.018
Years of work experience	.012	.018	.015	.656	.512			1.003
Monthly income	.017	.015	.025	1.113	.267			1.023

IV: Corporate social responsibility (IV1: Social assistance, IV2: Environmental protection, IV3:

Employee benefits, IV4: Customer interests, IV5:Shareholder interests)

DV: Innovation ability

Control variables: gender, age, educational attainment, years of service, monthly income

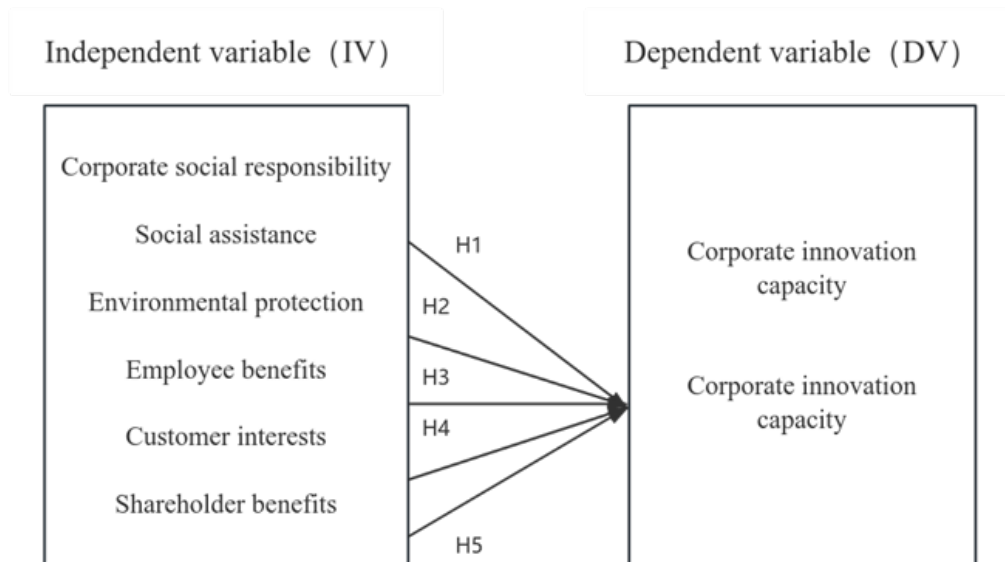The results of the hypothesis verification are shown in Figure 1 below:

Figure 1: Post-validation Conceptual Framework

Discussion

Based on the data analysis results and in combination with the purpose, question and background of the study, this study conducted an in-depth analysis of the correlations between various dimensions of corporate social responsibility and corporate innovation capabilities to address the research question raised above.

Question 1: What is the correlation between social assistance and corporate innovation in corporate social responsibility?

Based on the linear regression analysis, this study found that the standardized coefficient of social assistance for corporate innovation ability was 0.095, with a t value of 1.713 and a p value of 0.088. Although the p value was close to the significance level of 0.05, it did not reach significance in this model. From this, it can be seen that the direct impact of social assistance on the innovation ability of enterprises may be relatively limited and did not show a significant promoting effect in the model of this study. This may imply that, in the current research context, although social assistance is an important component of corporate social responsibility, its direct enhancement effect on corporate innovation capacity is not obvious. Companies may need to promote innovation more effectively through other means or by combining other dimensions of social responsibility.

Question 2 of the study: What impact does corporate environmental behavior in corporate social responsibility have on corporate innovation capacity?

Using linear regression analysis, it was found that the standardized coefficient of environmental protection for corporate innovation ability was 0.200, the t value was 3.381, and the p value was 0.001, indicating that environmental protection has a significant positive impact on corporate innovation ability. This result indicates that environmental protection behavior of enterprises not only helps enhance the social image of enterprises, but also directly promotes the innovation ability of enterprises. By actively engaging in environmental protection activities, enterprises may achieve a win-win situation of economic and environmental benefits through technological innovation, process optimization, etc. Therefore, enterprises should attach importance to environmental protection behavior as an important way to enhance their innovation capabilities.

Question 3: Does the inclusion of employee benefits in corporate social responsibility have an impact on the innovation ability of the enterprise?

According to the linear regression analysis, the standardized coefficient of employee benefits for enterprise innovation ability is -0.031, the t value is -0.643, and the p value is 0.520, indicating that the impact of employee benefits on enterprise innovation ability in this model is not significant. This means that within the framework of this study's model, changes in employee benefits did not have a significant positive or negative impact on enterprise innovation capabilities. However, this does not mean that employee benefits are completely irrelevant to corporate innovation capabilities, which may be influenced by other factors or limitations set by the model. Future research could further explore the interaction between employee treatment and other factors, such as corporate culture, employee motivation, etc., to gain a more comprehensive understanding of its impact on corporate innovation capabilities.

Question 4 : Is there a customer benefit-driven corporate social responsibility that helps to enhance a company's innovation capacity?

The results of the linear regression analysis show that the standardized coefficient of customer benefit for corporate innovation ability is 0.120, the t value is 2.721, and the p value is 0.007, indicating that customer benefit has a significant positive impact on corporate innovation ability. This indicates that by focusing on customer interests, enterprises can significantly enhance their innovation capabilities through providing quality products and services, meeting customer needs, etc. Corporate social responsibility driven by customer interests not only helps to enhance customer satisfaction and loyalty, but also stimulates the innovation vitality of enterprises and promotes the continuous introduction of new products, new technologies and new services.

Question 5: In terms of corporate social responsibility, under the current conditions, is it the interests of shareholders that affect the innovation capacity of enterprises?

The study found through linear regression analysis that the standardized coefficient of

shareholder interest for corporate innovation ability is 0.675, the t-value is 27.364, and the p-value is 0.000, indicating that shareholder interest has a very significant impact on corporate innovation ability. Combined with the size of the standardized coefficient, it is clear that shareholder interests are an important driver of corporate innovation ability. Under realistic conditions, shareholder interests are often closely linked to the long-term development and competitiveness of enterprises, so enterprises tend to enhance shareholder value through innovation. This result highlights the core role of shareholder interests in the innovation process of enterprises and suggests that enterprises should fully consider the demands of shareholder interests when formulating innovation strategies.

To sum up, this study delves into the correlation between the dimensions of corporate social responsibility and corporate innovation capabilities through linear regression analysis. The results show that environmental protection, customer interests, and shareholder interests have a significant positive impact on corporate innovation ability, while the impact of social assistance and employee treatment is not significant in this model. These findings provide useful references and inspirations for enterprises to formulate social responsibility strategies and innovation strategies.

Conclusions

1) The study found through linear regression model analysis that the standardized coefficient of social assistance for enterprise innovation ability was 0.095, with a t value of 1.713 and a p value of 0.088. Although the p value was close to the significance level of 0.05, it did not reach significance in this model. It can be concluded that the direct impact of social assistance on corporate innovation capacity may be relatively limited and does not show a significant promoting effect in the model of this study.

2) The results of the linear regression analysis show that the standardized coefficient of environmental protection for enterprise innovation ability is 0.200, the t value is 3.381, and the p value is 0.001, indicating that environmental protection has a significant positive impact on enterprise innovation ability. Combined with the correlation analysis (though the Pearson correlation coefficient is not directly given, the regression results are sufficient to illustrate the issue), it can be concluded that environmental protection activities can significantly promote the improvement of enterprise innovation capabilities.

3) This study finds that the standardization coefficient of employee benefits on the innovation ability of enterprises is -0.031, the t value is -0.643, and the p value is 0.520, indicating that the impact of employee benefits on the innovation ability of enterprises in this model is not significant. Therefore, it can be concluded that within the framework of this study's model, changes in employee benefits did not have a significant positive or negative impact on enterprise innovation capacity.

4) Through linear regression analysis, the standardized coefficient of customer benefit on enterprise innovation ability was 0.120, the t value was 2.721, and the p value was 0.007, indicating

that customer benefit has a significant positive impact on enterprise innovation ability. From this, it can be concluded that focusing on customer interests helps to enhance enterprise innovation capabilities, and customer interests are an important influencing factor of enterprise innovation capabilities.

5) The results of the linear regression analysis show that the standardized coefficient of shareholder interest on corporate innovation ability is 0.675, the t value is 27.364, and the p value is 0.000, indicating that shareholder interest has a very significant impact on corporate innovation ability. Combined with the size of the standardized coefficient, it can be concluded that shareholder interests are an important driver of enterprise innovation ability and have a significant positive effect on enhancing enterprise innovation ability.

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