

Introduction

Although achievements have been made in the construction of the environmental governance system currently being implemented in China, as the first subject of environmental pollution, the environmental will and environmental behavior of enterprises have affected the process of environmental governance system construction. And to solve the conflict between economic and environmental benefits more and more important. The Fourth Plenary Session of the 19th Central Committee of the Communist Party of China pointed out that it is necessary to strictly enforce the ecological environmental protection responsibility system, strengthen the management of binding indicators such as environmental protection, natural resource control, energy conservation and emission reduction, and strictly implement the responsibility of enterprises and government supervision. However, in reality, many companies passively implement environmental behaviors and rush to save energy and reduce emissions in order to achieve the environmental governance goals set by the government, it is contrary to the original intention of energy saving and emission reduction. In order to more effectively promote the construction of environmental governance systems, improving the will of enterprises to implement environmental behaviors has become a major breakthrough direction in the future. In this context, the implementation of corporate environmental behavior has become an objective requirement for economic and social development.

As an important part of our national economy, resource-based enterprises have caused tremendous damage to resources and the environment while creating economic benefits. The investment in the treatment of industrial pollution sources nationwide in 2017 was 68.55 billion yuan, of which 7.64 billion yuan was used to treat wastewater, 44.63 billion yuan to treat waste gas, and 1.27 billion yuan to treat solid waste. The proportion of enterprises in industrial pollutant emissions cannot be ignored. At present, resource-based enterprises are in a critical period of green transformation. However, due to their strong resource dependence, low added value of products, and high cost of technological innovation, enterprises will save transformation costs as much as possible out of rational considerations, and therefore the subjective will to implement environmental behaviors is not strong. And traditional government environmental regulations focus on end-of-pipe governance, which lacks guidance for companies' prior environmental behavior [1]. In fact, as a micro-decision-making subject, the implementation of environmental behavior can't be simply regarded as a passive compliance under government regulation, and its internal green culture and knowledge sharing are more important. Among resource-based companies, 84.5% of the surveyed companies included environmental protection into their corporate target system, 70.3% of companies regularly carried out

employee environmental protection skills training and environmental protection knowledge sharing, and 69.4% of employees actively practiced corporate green activities, showing that most resource-based enterprises begin to pay attention to environmental culture and environmental protection concept, but there are still a small number of enterprises that lack internal green knowledge promotion and sharing. Therefore, how to promote knowledge sharing and enhance the environmental will of enterprises is an important problem in the selection of environmental behavior of resource-based enterprises. Studying the mechanism of corporate environmental behavior is of great significance to the improvement of the environmental governance system proposed in the report of my country's 19th National Congress. At the same time, the study of multiple factors affecting enterprise environmental behavior and its mechanism of action should also be the focus of the study. Only by clarifying the driving factors of enterprise environmental behavior, can we formulate the corresponding strategies to promote the implementation of enterprise green behavior.

Corporate environmental behavior, also known as "corporate pro-environmental behavior", "corporate green behavior" and "corporate cleaner production behavior". Domestic and foreign scholars define the environmental behavior of enterprises slightly different. For example, environmental behaviors specifically refer to behaviors that are environmentally friendly to reduce environmental hazards [2]. Corporate environmental behavior refers to a series of strategies involving the relationship between corporate business operations and the environment, or corresponding to external pressures, and proactive measures aimed at reducing environmental hazards [3]. According to the definition of the above research and the availability of enterprise research data, this paper defines the environmental behavior of enterprises as the behavior of enterprises to integrate the ideas of environmental protection and resource saving into business activities under the pressure of government, market and society, and to carry out a series of green management activities and green technological innovation. Corporate environmental behavior is the result of the interaction between external factors and internal characteristics. Based on the perspectives of institutional, organizational and resource perspectives, scholars discuss the influence mechanism of enterprise environmental behavior from three aspects: environmental regulation, stakeholders, and corporate characteristics. As far as environmental regulation is concerned, the results of some documents show that environmental regulation has a certain direct effect on the environmental behavior of enterprises [4, 5], but most scholars believe that a single environmental policy is not directly causal [6], related to the transmission mechanism [7], the strictness of policy implementation [8]. As for stakeholders, with the increase of environmental pollution and public awareness of environmental protection, China's

Table 1. Measurement criteria for the scale.

Variable	Serial number	Measurement indicators
Corporate Reputation (CR)	CR1	Companies believe that preventing pollution scandals is one of their goals
	CR2	When bad pollution and other incidents occur, company's top executives think this is a major event related to corporate reputation and image building
	CR3	Maintaining communication with the news media on environmental image is a constant practice for companies
	CR4	Does the company attach importance to the formulation of environmental policies such as employee environmental knowledge training, internal and external environmental audit, environmental accounting, corporate environmental reporting, etc
Leader Awareness (LA)	LA1	Enterprise strategy tends to environment-friendly development
	LA2	The concept of sustainable development has been emphasized in enterprise development strategies
	LA3	Does the company's top management value environmental protection
	LA4	Whether the company will deal with the negative impact of the pollution scandal in time
Technical Support (TS)	TS1	Enterprises actively introduce all kinds of advanced energy-saving technologies and use environmental protection equipment
	TS2	The top management of the enterprise has always insisted on adopting the most advanced energy saving and environmental protection technology
Market Profits (MP)	MP1	Corporate financial performance and environmental indicators are closely linked
	MP2	Corporate leaders pay close attention to environmental performance indicators
	MP3	The concept of balanced development of enterprise economic interests and environmental security has always been emphasized and practiced
Corporate Environmental Will (CEW)	CEW1	Enterprises have been advocating encouraging the conservation of electricity and water
	CEW2	Enterprises actively encourage the use of environmental protection and innovation technology in enterprises
Corporate Environmental Behavior (CEB)	CEB1	Most of the raw materials, office supplies (such as production water, paper) used by enterprises are reusable environmental materials
	CEB2	In the enterprise production process, according to the ecological green manufacturing process implementation
	CEB3	Enterprises have special pollution supervision departments and clear responsibilities
	CEB4	Enterprises earnestly implement and emphasize environmental protection work such as resource saving, garbage sorting and pollution monitoring
Knowledge Sharing (KS)	KS1	Enterprises regularly conduct environmental awareness, knowledge and skills training
	KS2	Enterprises pay attention to saving, long-term training activities to repair the old and waste, fear life
	KS3	Does the enterprise advocate environmental marketing and environmental culture
	KS4	Whether enterprises attach importance to green building design, energy conservation management, water conservation management, waste discharge management
	KS5	Do enterprises attach importance to environmental management communication and environmental knowledge
Corporate Social Responsibility (CSR)	CSR1	Corporate executives believe that social responsibility is always the responsibility of enterprises
	CSR2	Enterprises have been punished by the relevant departments for various pollution acts
	CSR3	What kind of energy conservation, environmental protection or green title has the enterprise obtained
	CSR4	Reducing and eliminating pollution incidents such as oil spills and pollution emissions has always been an important concern for enterprises
	CSR5	Security of the surrounding community
	CSR6	Efforts have been made to make environmental information transparent, such as energy conservation and emission reduction information

Table 6. Intermediation tests of corporate environmental will.

	Regression 1 (CR)		Regression 2 (LA)		Regression 3 (TS)		Regression 4 (MP)	
	Coefficient	t value	Coefficient	t value	Coefficient	t value	Coefficient	t value
First step	0.192***	3.378	0.229***	4.309	0.362***	7.415	0.303***	6.170
Step 2	0.253**	2.743	0.383***	5.609	0.315***	3.506	0.264***	4.139
Step 3	0.896***	8.639						
	0.049	0.131	0.060	0.175	0.082**	2.902	0.127**	2.876
Step 4	0.163*	2.063	0.296**	3.246	0.358**	3.122	0.270***	3.690
	0.729**	2.774						

Note: * indicates $p < 0.05$, ** indicates $p < 0.01$, *** indicates $p < 0.001$

intermediary variable path is significant, independent variable to dependent variable path coefficient is significant, but the coefficient value is smaller than before, then corporate environmental will plays a part intermediary role in the path of technical support, market profits affecting corporate environmental behavior.

Testing of the Regulatory Role of Knowledge Sharing and Corporate Social Responsibility

A regulatory variable is a special independent variable that acts as an independent variable, also known as a sub-independent variable (Secondary independent variable) [55]. The regulatory variable examines the conditions under which the independent variable affects the dependent variable, including the direction and extent of the adjustment. The test of regulation effect is to measure whether the causality between independent variable and dependent variable changes with the value of regulating variable. Regression analysis and structural equation model are the usual analytical methods for regulating variables [53].

Test the regulatory role of knowledge sharing. In order to verify the hypothesis that knowledge sharing plays a regulatory role between leader awareness and corporate environmental will, this paper uses the hierarchical regression analysis method in SPSS software to test the regulatory effect of knowledge sharing, taking leader awareness as independent variable, corporate environmental will as a dependent variable. The first step is to introduce the gender, working life, type of work and enterprise scale into the regression equation, the second step is to introduce the independent variable and the adjusting variable into the regression equation, and the third step is to introduce the interaction between the independent variable and the adjusting variable into the regression equation. The results are shown in Table 6, the regression coefficient of knowledge sharing on corporate environmental behavior is 0.538, and the regression coefficient of the interaction item between knowledge sharing and leader awareness on environmental behavior is 0.617, and the p-values are all less than 0.001, reaching a significant level, assuming H3a Be verified.

The regulation of corporate social responsibility. The analytic hierarchy process is also used to test the hypothesis that corporate social responsibility plays a regulatory role between environmental will and environmental behavior. The environmental will as independent variable, environmental behavior as dependent variable, social responsibility as regulatory variable, and controlling demographic characteristics. As shown in Table 7, the regression coefficient of social responsibility to environmental behavior is 0.398 and the p value is less than 0.001. However, the interaction term between corporate social responsibility and environmental will is not significant for the regression

Conclusions

Based on the research data of 503 Xuzhou resource-based enterprises, this paper synthesizes the internal and external factors that affect the environmental will and behavior of enterprises from three aspects: behavior attitude, subjective norm and perceived behavior control, systematically analyzes the mechanism of environmental behavior decision-making as micro-individual, and constructs a structural equation model to demonstrate the relevant assumptions, that is, positive expected market profits, greater pressure of public opinion expectation, strong environmental protection consciousness of leaders, and the more complete green innovation ability of enterprises have a positive impact on corporate environmental will, thereby promoting corporate environmental behavior. The study found that:

The influence coefficient of leader awareness on corporate environmental will is 0.889, which explains that the current leader's environmental protection consciousness is the main factor affecting the implementation of enterprise environmental behavior. As decision makers and managers of enterprises, leader awareness of environmental protection directly affects whether enterprises are positive in their attitude towards environmental behavior. If enterprises implement forward-looking environmental strategies, environmental values are stronger. The environmental performance of enterprises will also be significantly improved. The path coefficient of enterprise reputation affecting environmental will is 0.760, which indicates that the pressure brought by public opinion on enterprise environmental behavior can not be underestimated. As an exogenous factor affecting the environmental will of enterprises, corporate reputation promotes enterprises to take more environmental responsibility actively through effective social supervision in order to maintain a good corporate image. The influence coefficient of market profits on the environmental will of enterprises is 0.473. Optimistic market income expectation can promote the will of pro-environmental behavior of enterprises, but this positive effect does not seem to be significant at present. In the long run, the implementation of environmental behavior can bring positive environmental benefits, but because of the high short-term cost, enterprises that pay attention to short-term interests are unwilling to take the initiative to implement environmental behavior.

The role of social responsibility in the process of transforming environmental will into environmental behavior is not significant. The reason may be that resource-based enterprises, as important energy enterprises in the country, are highly dependent and destructive to the natural environment, and enterprises will produce a lot of pollution in the process of resource exploitation, thus bringing negative externalities to society [53]. However, compared with other types of enterprises, the green transformation and upgrading

of resource-based enterprises face higher costs, so the subjective initiative of enterprises to implement environmental behavior is not strong; secondly, resource-based enterprises are mostly large and medium-sized state-owned enterprises, which hold the lifeblood of local economy, so the local environmental protection departments are more inclined to compromise with them, resulting in the problem of weak supervision or regulation capture, lack of supervision of resource-based enterprises in the process of fulfilling social responsibility, so the regulatory role is weak [54].

Knowledge sharing plays a regulatory role in the transformation of leader awareness into environmental will. When the enterprise leader actively propagandizes the green knowledge, carries out the related training regularly, it is easier to create the enterprise green production atmosphere, stimulates the employee's green innovation ability, thus causes the leader consciousness to transform into the environment will more easily. And when the level of knowledge sharing is high, this regulation is more intense.

The relevant research conclusions of this paper on the influencing factors of corporate environmental behavior and its mechanism are helpful for enterprises to implement green production behavior and stimulate employees' will to green production behavior. It also reflects the normative effect of effective supervision of government and society on enterprise environmental behavior. Therefore, on the basis of understanding the influence of each intermediary variable and regulating variable, and combining with the heterogeneity of the investigated enterprises, this paper puts forward the following suggestions from three aspects: government, public and enterprise itself:

At the government level, establish and improve the state supervision, local supervision, units responsible for environmental supervision system. Improving the application of environmental laws and regulations and the definition of illegal conditions, serious environmental violations focus on investigation and punishment. On this basis, further strengthen the authenticity and integrity of information disclosure. Strict implementation of total pollutant emission control, emission permits, environmental impact assessment, cleaner production audit, mandatory elimination, deadline control, environmental identification and certification system, relevant departments according to the results of the audit to implement incentive policies for enterprises with better environmental performance, to promote the will of enterprises to take the initiative to implement environmental behavior. To inform the enterprises with poor environmental behavior of fines, closure and rectification of punishment measures to guide enterprises to actively assume environmental responsibility.

At the public level, enhance the level of public participation. The participation of stakeholders such as mainstream media, industry organizations and industry associations will make enterprises face

22. DOWNING P., KIMBALL J. Enforcing pollution control laws in the United States. *Policy Studies Journal*, **11**, 55, **1982**.
23. WALDMAN D.A., SIEGEL D. Defining the socially responsible leader. *Leader Quarterly*, **19** (1), 117, **2018**.
24. WANG F.Z., GUO X.C. The impact of environmental regulation intensity on green technological innovation of resource-based industries – an empirical test based on panel data from 2003-2011. *China's population Resources and Environment*, **25** (S1), 143, **2019**.
25. XIE X.B., SUN L.J., WU Y., ZHOU M. Network relationship, management cognition and enterprise environmental technology innovation behavior – an empirical analysis of resource-based enterprises. *Science and Technology Management Research*, **39** (23), 142, **2019**.
26. ALSAIFI K., ELNAHASS M., SALAMA A. Carbon disclosure and financial performance: UK environmental policy. *Business Strategy and the Environment*, **29** (2), 711, **2020**.
27. LI C.R., YE H C.H. Leveraging the benefits of exploratory learning and exploitative learning in NPD: the role of innovation field orientation. *R&D Management*, **47** (3), 484, **2017**.
28. PAPA A., DEZI L., GREGORI G.L., MUELLER J., MIGLIETTA N. Improving innovation performance through knowledge acquisition: the moderating role of employee retention and human resource management practices. *Journal of Knowledge Management*, **24** (3), 589, **2018**.
29. AJZEN I. From intentions to actions: a theory of planned behavior. In: Kuhl J, Beckman J, (Eds.), *Action control: From cognition to behavior*. Heidelberg, Germany: Springer, 11, **1985**.
30. WANG J.R., ZHANG Y. Environmental regulation, green technological innovation intention and green technological innovation behavior. *Scientific Research*, **36** (02), 352, **2018**.
31. TIAN H.R., ZHANG J., LI J.J. The relationship between pro-environmental attitude and employee green behavior: the role of motivational states and green work climate perceptions. *Environmental Science and Pollution Research*, **27** (7), 7341, **2020**.
32. DUAN W.T., JIANG G.R. A review of the theory of planned behavior. *Progress in Psychological Science*, (02), 315, **2008**.
33. CONCARI A., KOK G., MARTENS P. A Systematic Literature Review of Concepts and Factors Related to Pro-Environmental Consumer Behaviour in Relation to Waste Management Through an Interdisciplinary Approach. *Sustainability*, **12** (11), 4452, **2020**.
34. NORTON T.A., ZACHER H., PARKER S.L., ASHKANASY N.M. Bridging the gap between green behavioral intentions and employee green behavior: The role of green psychological climate. *Journal of Organizational Behavior*, **38** (7), 996, **2017**.
35. XIE X.B., SUN L.J., WU Y., ZHOU M. Network relationship, management cognition and enterprise environmental technology innovation behavior – an empirical analysis of resource-based enterprises. *Science and Technology Management Research*, **39** (23), 142, **2019**.
36. WANG Q.C., CHANG R.D., XU Q., LIU X., JIAN I.Y., MA Y.T., WANG Y.X. The impact of personality traits on household energy conservation behavioral intentions – An empirical study based on theory of planned behavior in Xi'an. *Sustainable Energy Technologies and Assessments*, **43**, **2021**.
37. ZOU W.J., PEI H.W., WANG J. A study on enterprise environmental behavior based on principal-agent model. *China's population Resources and Environment*, **24** (S1), 51, **2014**.
38. ZHOU M., KANNAN G., XIE X.B., YAN L. How to drive green innovation in China's mining enterprises? Under the perspective of environmental legitimacy and green absorptive capacity. *Resources Policy*, **72**, **2021**.
39. XIANG L., HU L.Y. R&D outsourcing and enterprise green technology innovation: the regulatory role of environmental regulation. *Management Modernization*, **37** (06), 60, **2017**.
40. VILCHEZ V.F., DARNALL N., CORREA J.A.A. Stakeholder influences on the design of firms' environmental practices. *Journal of Cleaner Production*, **142**, **2017**.
41. SALEEM M., QADEER F., MAHMOOD F., ARIZAMONTES A., HAN H. Ethical leadership and employee green behavior: A multilevel moderated mediation analysis. *Sustainability*, **12** (8), 3314, **2020**.
42. MO S.Y., ZHANG C.J. Empirical evidence of environmental values, environmental behavior and environmental performance from listed companies in China's heavy-polluting industry. *Monthly Journal of Accounting*, **36**, 13, **2016**.
43. HOTTE K. How to accelerate green technology diffusion? Directed technological change in the presence of coevolving absorptive capacity. *Energy Economics*, **85** (C), **2020**.
44. CAO Y., XIANG Y. Corporate knowledge governance, knowledge sharing and employee innovation behavior – the mediating effect of social capital and the regulating effect of absorptive capacity. *Scientific Research*, **32** (01), 92, **2014**.
45. HE J., WANG H.C. Innovative knowledge assets and economic performance: the asymmetric roles of incentives and monitoring. *Academy of Management Journal*, **52** (5), 919, **2009**.
46. TAUSCZIK Y., HUANG X.Y. Knowledge generation and sharing in online communities: current trends and future directions. *Current Opinion in Psychology*, **36**, 60, **2020**.
47. FREEMAN R.E. *Strategic management: a stakeholder approach*. Cambridge University Press, **1984**.
48. XU S.K., YANG R.D. An inductive analysis of the conceptual category of corporate social responsibility. *China Industrial Economy*, **05**, 71, **2007**.
49. YIN L.L. Stakeholder stress, corporate environmental behavior and environmental performance. *Zhejiang University of Technology*, **2018**.
50. CHU H.W., EI-MANSRLY D., TSENG M.L., RAMAYAH T. Sustaining customer engagement behavior through corporate social responsibility: The roles of environmental concern and green trust. *Ecology, Environment & Conservation*, **262**, **2020**.
51. QU L.J. A study on the environmental values and impacts of enterprises. *North University of Technology*, **2019**.
52. WANG S.J., ZHOU H.Y. The empirical test on the influence of environmental values on ecological consumption behavior – based on intermediary variables. *Soft Science*, **33** (10), 50, **2019**.
53. WEN Z.L., HOU J.T., HERBERT M. Analysis of structural equation model: of fitting index and chi-square criterion. *Psychology Report*, **02**, 186, **2004**.
54. YANG L., YU A.P. The influence of entrepreneur's cognition on the forward-looking change of enterprise's

