

How to Motivate Employees to Behave Environmentally?

-- The Influence of Green Transformational Leadership on Employees' Environmental Behavior

Yajing Zhao, Ling Li

School of Management, Lanzhou University, Gansu 730013, China

Abstract

This study is based on today's world of widespread environmental problems, green growth in an important position in the global development of era background, from the perspective of human resource management, aims to explore the leader's leadership way to employees the impact of the existence of environmental behavior, and self-efficacy in which the employee green enterprises and intermediary role of environmental atmosphere adjustment. Furthermore, it provides some practical enlightenment for enterprise leaders on how to motivate and encourage employees to carry out environmental protection behaviors more effectively, and helps enterprises improve their leadership style to improve environmental performance, so as to alleviate the contradiction between economic growth and green development.

Keywords

Green Transformational Leadership; Employee Behavior; Green Self-Efficacy; Enterprise Atmosphere.

1. Introduction

The past few decades, with the advancement of reform and opening up, improve the level of industrialization, science and technology progress, also obtained the rapid development of economy in our country, but our country's ecological environment in the past in vulgar management of the economy development mode suffered severe damage, environment problem increasingly prominent, the development of economy and the progress of the society is restricted by a lot, So it is urgent to control environmental pollution. In order to deal with the threat of environmental pollution to human beings, the state began to focus on environmental governance, and issued a series of policies on the construction of ecological civilization. The 14th Five-Year Plan, adopted on March 11, 2021, states: "Promote green development and promote harmonious coexistence between man and nature." In order to respond positively to national policies and promote sustainable economic development, the academic circle has also begun to explore how enterprises can achieve green development by protecting the environment. Based on this background, how to promote enterprises to actively implement green development mode has become a hot topic in the academic circle.

In the process of carrying out green development mode, green management has become a key link. Studies have shown that the leadership style of enterprise leaders will affect the overall atmosphere of the enterprise and the strategic choice of the enterprise. Therefore, green transformational leadership is gradually coming into people's vision, providing a new idea for the research on how to achieve sustainable development of enterprises. Through the analysis and summary of existing studies, it is found that the former research rarely involves the relationship between green transformational leadership and employees' environmental behavior, and lacks in-depth research and exploration. Based on this situation, this study raises

the following question: Can green transformational leadership promote voluntary environmental behavior of employees? How does it work? In order to explore the answers to the above questions, the primary purpose of this study is to explore the relationship between green transformational leadership and employees' environmental behavior.

Secondly, green self-efficacy is simply an individual's evaluation of his ability to achieve green goals. In terms of the research on the relationship between green transformational leadership and green self-efficacy, existing researches have found that the leadership of the leader has a great impact on the green self-efficacy of employees through the investigation of various enterprises in China. In addition, in terms of the relationship between green self-efficacy and employees' environmental protection behavior, existing studies have concluded that green self-efficacy can promote employees' environmental protection behavior and improve enterprises' environmental protection ability. So does green self-efficacy affect the relationship between green transformational leadership and employees' environmental behavior? Therefore, the second purpose of this study is to explore whether green self-efficacy mediates the relationship between leaders' green transformational leadership and employees' environmental behavior.

Moreover, the strong and effective leadership provided by enterprise leaders is actually a spiritual constraint on employees' behavior. In order to further stimulate employees' active environmental protection behavior, it needs the overall environmental protection atmosphere of the enterprise as a catalyst, so as to stimulate employees' inner passion for environmental protection. Therefore, the third purpose of this study is to explore the moderating effect of enterprise environmental climate on the relationship between green transformational leadership and employee environmental behavior.

In a word, the purpose of this study is to explore whether green transformational leadership has an impact on employees' environmental behavior, and if so, further explore its internal influence path. Study confirmed if the above purpose after, we can show in the enterprise employees spontaneous environmental behavior would be affected by the business leaders of the green transformational leadership, at the same time also can promote green transformational leadership in practice and application in the field of sustainable development, help to urge the enterprise bear the social responsibility, strengthen environmental protection consciousness, responded to an appeal by the state and build green environmental protection enterprise, To contribute to the construction of ecological civilization of the motherland.

2. Research Background and Basis

2.1. Research Background

2.1.1. Theoretical Background

According to Albert Bandura's social learning theory, people can acquire complex behaviors, especially the behavior of learning role models, through direct or indirect experience learning. Therefore, the behavior and cognitive attitude of leaders have a strong impact on employees. At the same time, leaders' views on environmental protection and their actions will also have an impact on employees' environmental protection values. Green transformational leadership is a management method in which leaders, as a good example of environmental protection, promote employees to learn and achieve environmental performance goals or even exceed goals. It is a new manifestation of transformational leadership in the field of sustainable development. Employees' environmental behavior, also known as employees' environmental friendly behavior, refers to the behavior that employees spontaneously and actively contribute to environmental protection in the organization. Through green transformational leadership, it takes the lead with the potential influence of leaders, and then imperceptibly affects the values of employees, so as to improve employees' environmentally friendly behavior and stimulate employees' green creativity.

2.1.2. Realistic Background

With the rapid development of economy and society, the natural environment has been seriously damaged due to the uncontrolled production and life of human beings, and environmental protection is imminent. At present, environmental pollution, ecological imbalance and other problems have restricted the economic and social progress of countries around the world, and even threatened the future survival and development of mankind. Therefore, to take the road of sustainable development and coordinate the relationship between economic development and environmental protection has become an inevitable choice for the world to pursue long-term development. As an indispensable part of the national green development strategy, enterprises shoulder the organizational responsibility to develop green environmental management and contribute to the sustainable development of the national and even the world economy.

In 2019, the National Development and Reform Commission issued the Guiding Opinions on Building a Market-oriented Green Technology Innovation System, which pointed out that enterprises should enhance their dominant position in green technology innovation and strengthen the training of green technology innovation talents. Green innovation behavior is the key point for enterprises to practice the concept of green development. Creating a positive and favorable environment friendly organization atmosphere and promoting green behavior of employees are important measures for enterprises to achieve green environmental management. Through green transformational leadership, it has become a necessary measure for enterprises to enhance their competitiveness and achieve sustainable development by subtly enhancing employees' environmentally friendly behaviors and shaping enterprise environmental atmosphere through managers' own influence.

2.2. Basis of Topic Selection

2.2.1. Theoretical Basis

When the theory of planned behavior is applied to the actual workplace, employees may regard leaders as role models and behavior standards due to their status and power. Leaders' behavior is the external expression of their values, and setting an example is an important mechanism for leaders to promote their values to employees. Often, it is difficult for organizations to rely on formal job descriptions, training or reward systems to cultivate employees' individual voluntary behavior, so the exemplary role of leadership is particularly important. In the context of enterprises seeking green development, leaders' green demonstration behavior not only reflects leaders' attention to environmental management, but also enables employees to understand what environmental protection behavior is more intuitively. The characteristics of top-down management structure in enterprises make employees tend to exhibit similar behaviors in order to maintain a strong connection with the leader. Therefore, as a management mode conducive to sustainable development, green transformational leadership can trigger and promote employees' environmental behaviors to a certain extent. Through green transformational leadership, leaders' own behaviors subtly influence employees' values, then stimulate employees' environmentally friendly behaviors and improve their green performance.

2.2.2. Realistic Basis

With the rapid development of economy and society, while the ecological environment is deteriorating day by day, environmental problems have gradually become a major risk factor that can not be ignored in human survival and development. In order to deal with environmental pollution, countries around the world have issued a series of environmental protection policies and established a number of environmental protection organizations, which means that taking the road of sustainable development and coordinating the pursuit of the relationship between economic benefits and environmental protection have become the

inevitable choice for the world to pursue long-term development. As an indispensable part of the national green development strategy, enterprises shoulder important environmental responsibility. Therefore, the promotion of spontaneous environmental protection behavior by enterprises will not only affect the cost and green performance of enterprises, but also affect the progress of ecological civilization construction in China, which has become a huge problem faced by enterprises.

In organizations, leaders are often the role models for employees to regulate and improve their own behavior. In other words, leaders' green behavior plays an important role in the formation and improvement of employees' environmental protection behavior. Through green transformational leadership, it will become an important measure for enterprises to enhance their competitiveness and achieve sustainable development to subtly improve employees' environmentally friendly behaviors and shape the environment of enterprises with the influence of managers themselves.

3. Concept Definition and Research Hypothesis

3.1. Definition of Concept

3.1.1. Green Transformational Leadership

It is mentioned in the book *Leadership* that leaders can be divided into two categories: transactional leadership and transformational leadership. Transactional leadership refers to a leadership style in which the upper and lower levels of an organization establish certain transactions in the form of salary and remuneration, share transfer, etc., and the lower levels obey and follow the guidance of the higher level. Meanwhile, the leader motivates and guides the employees to complete their tasks so as to achieve value exchange. Transformational leadership refers to a leadership style in which leaders rarely communicate with their subordinates through rewards and remuneration, but influence their subordinates' willingness and behavior by relying on their own leadership and personal charm, and improve their skills independently to achieve organizational goals. Although scholars in related fields gradually focus on transformational leadership, existing researches still focus on safety, and there are few researches on transformational leadership in specific situations and scope on employee behavior and other factors. We observed and combined with the actual situation of enterprise management, some scholars proposed that the characteristics and advantages of transformational leadership might play a certain role in realizing organizational environmental performance. Green transformational leadership is a form of transformational leadership focusing on environmental protection. According to the original theory and current research, green transformational leadership can be defined as leader motivating and guiding subordinates to achieve environmental protection and achieve or exceed the set environmental performance goals through their own behaviors.

3.1.2. Environmental Protection Behavior of Employees

Environmental protection behavior is also called pro-environment behavior. It refers to the measures that individuals take to protect the environment and realize sustainable development according to the concept of environmental protection under the circumstance that they have environmentally friendly attitude, or the spontaneous actions that do not involve resources or interests to protect the natural environment. The main purpose of environmental protection behavior is to reduce the negative impact on the natural environment caused by the unconscious actions of individuals in production and life. The environmental behavior of employees refers to the tendency of employees to protect the ecological environment and take the initiative to increase the frequency of their green behavior. In other words, the environmental behavior of employees refers to the attitude and behavior tendency of

employees who voluntarily show non-egoistic attitudes and behaviors conducive to environmental protection in the organization.

3.1.3. Green Self-efficacy

Self-efficacy refers to an individual's judgment and evaluation of whether he or she has enough ability to achieve a certain goal. Green self-efficacy refers to the assessment of an individual's ability to achieve green environmental goals through implementing actions, and is the concentration of self-efficacy in the field of green environmental protection. Green self-efficacy significantly exceeded the average level of individuals with firm belief in their own behavior and full of energy in action, believing that they have enough ability to achieve the given green goal. Green self-efficacy in the organization, employees can inspire employees' environmental consciousness, encourage employees to take action to protect the environment, at the same time, the existing research has found that five employees self-efficacy and individual green color behavior generally positively correlated relationship, green high self-efficacy level of individuals have a strong sense of responsibility, Be able to spontaneously and actively respond to the green development strategy issued by the government and make contributions to the protection of the environment.

3.1.4. Enterprise Environmental Protection Atmosphere

Enterprise environmental protection atmosphere refers to the manifestation of collective and unconscious consciousness of advocating green lifestyle and promoting environmental protection actions gradually formed through direct contact with employees in the long-term common operation and management process. The environmental environment of an enterprise may be influenced by many factors, such as local laws and regulations related to environmental protection, personal characteristics of employees, and corporate culture.

3.2. Research Hypothesis

3.2.1. Hypothesis Formulation

The environmental protection behavior of employees is based on their personal will, which is not within the scope of work stipulated in the contract and does not involve resource interests. It is this kind of behavior characteristic that depends on individual will that makes it impossible for all employees to voluntarily carry out environmental behavior at work. Because often, most employees take environmentally friendly actions to ensure that the leadership's instructions are followed, rather than actively reviewing and thinking about how to increase the ecology of the product. Therefore, it is difficult for leaders to persuade or motivate employees to exhibit such behavior through traditional leadership styles or methods. Green transformational leader through to employees clear clues to speech or behavior of environmental protection, not only can let staff aware of environmental protection actions are expectations and recognized by the society, also can let the employees to get the corresponding environmental protection knowledge and skills, arouse the staff inside the organization environment and the natural environment problems of deep concern, to a certain extent, inspire the staff's environmental behavior. Therefore, this project proposes:

H1: Green transformational leadership has a significant positive impact on employees' environmental behavior.

Green self-efficacy refers to the evaluation of individuals' ability to perform different activities to achieve green goals. Green transformational leaders actively practice the concept of environmental protection in organizational management and show green demonstration behavior. This demonstration behavior directly conveys the leaders' cognition and attention to environmental issues to employees. Employees take green transformational leaders as a model to learn, promote employees to reach a consensus on organizational environmental protection, and form a green sense of self-efficacy based on this. Therefore, the project proposes:

H2: Green transformational leadership has a significant positive impact on green self-efficacy.

As a cognitive and psychological resource, green self-efficacy can influence individual behavior. Employees with a high sense of green self-efficacy will positively understand the intention and purpose of the organization's implementation of green management, and then make full use of existing internal and external resources and actively participate in green activities. In other words, employees with a correct understanding of green self-efficacy tend to have better environmental protection behaviors. Individuals with high level of green self-efficacy are more confident that they have the ability and confidence to complete specific green tasks. In the context of sustainable development, green self-efficacy is conducive to the change of employees' attitude towards the environment, and improves employees' willingness to make extra efforts beyond their prescribed responsibilities, and increases employees' environmental behavior.⁶ Accordingly, the project proposes:

H3: Green self-efficacy has a significant positive impact on employees' environmental protection behavior.

The process of leader meaning entrusting is the premise for employees to realize the construction of individual meaning. Social norms and ethical constraints make it impossible and impossible for leaders to force employees to carry out environmental protection behaviors. More generally and objectively, they assign meanings to themselves according to the exemplary behaviors of leaders. In the organizational environment, leaders display personal charm and environmental leadership to construct the green mission and values of the organization in response to the needs of The Times, and formulate environmental rules and regulations in line with the actual development of the enterprise. By setting an example, the organization's emphasis on sustainable development is subtly transmitted to employees, so as to inspire employees' sense of green self-efficacy, influence employees' environmental protection behavior, and inspire employees to face the sustainable development of the organization with enthusiasm. Therefore, this project proposes:

H4: Green self-efficacy partially mediates the relationship between green transformational leadership and employees' environmental behavior.

After the group members in the same environment for a long time experience a series of events together, the group members will unconsciously generate a common sense of meaning and relatively lasting emotions for a certain kind of event with a specific representation, and a specific emotional atmosphere will be formed under the impetus of this premise. Under the requirements of green management, enterprises can create an environment of environmental protection by conveying the vision and goals of green environmental protection and formulating relevant rules and regulations. Atmosphere to the organization of environmental protection of enterprise group members passed a in order to realize the management development as the goal of green environmental protection norms, not only does this in not deliberately create atmosphere to guide the green behavior of employees, also prompt them to reverse supervise daily operation in the process of enterprise more environmental responsibility, thus promoting the development of enterprises to realize green. Therefore, enterprise environmental atmosphere can positively promote green transformational leadership and positively influence employees' environmental behavior to a certain extent. Therefore, this project proposes:

H5: Enterprise environmental climate has a significant moderating effect on the relationship between green transformational leadership and employees' environmental behavior.

3.2.2. Theoretical Model

This study uses scale method to explore the impact of green transformational leadership on employees' environmental behavior, and reveals the mediating role of employees' green self-efficacy in the relationship between green transformational leadership and employees' environmental behavior, as well as the moderating role of enterprise environmental climate. The theoretical model constructed in this study is as follows:

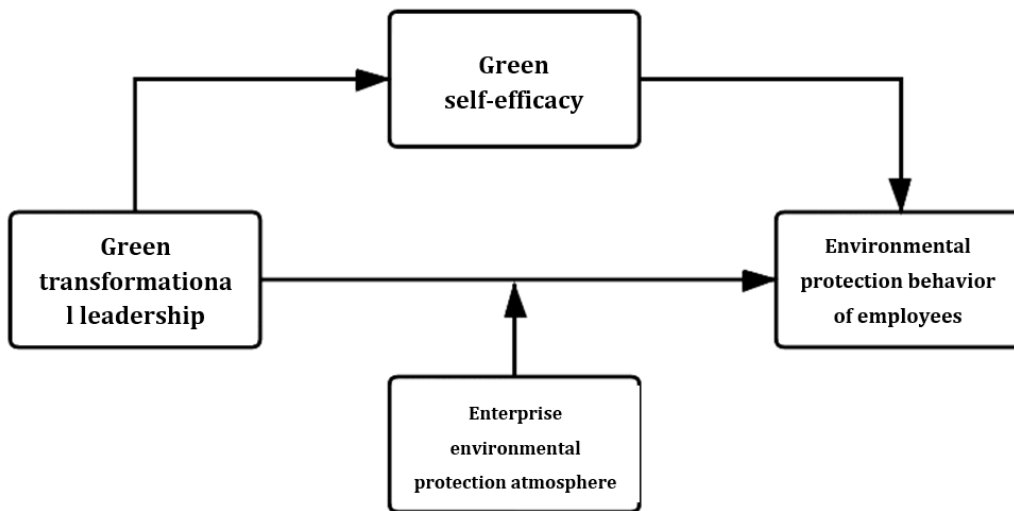


Figure 1. Theoretical model

4. Research Design and Analysis

4.1. Research Design

4.1.1. The Research Methods

This project scale method is used to study the green transformational leadership on employees' environmental behavior, the influence of green the mediation role of self-efficacy and enterprise environmental protection atmosphere adjustment, put forward five hypotheses, the authoritative status of the access and search of platform scale, overall, specific scale and sample to ensure the reliability and validity of the scale as the prerequisite, A scale that can measure the relevant variables in the study was selected, and a secondary reliability and validity test was conducted after integration to ensure the accuracy of the measurement of the variables in the study.

4.1.2. Questionnaire Design

In order to ensure the rigor of the study, the scales designed in the questionnaire of this study refer to scales with good reliability and validity that have been used in influential literatures at home and abroad. In order to ensure the semantic accuracy of translation, all scales were translated into Chinese through the classic translation method of Brislin (1970), and some items were moderately adjusted according to the actual situation of Chinese enterprises through communication with the leading tutor. In addition to demographic variables, likert scale was used for all variables involved in the model in this study. The middle option of "no opinion" was deleted, and options included "1" (disagree) to "4" (strongly agree). Because there are two extreme options in likert scale design to measure subjects' extreme choice of choice statement. However, in the actual situation, due to many objective or subjective factors, the subjects may avoid choosing extreme options or involuntarily try to figure out and cater to the results desired by themselves, organizations and society, resulting in the falsification of the collected data. When the middle option "no opinion" is not available, the subjects are forced to make a choice, so as to

avoid the distortion of the collected data due to the interference of the above factors to a certain extent.

For the designed questionnaire, subjects were selected in a small range and questionnaires were distributed, data were collected for secondary reliability and validity test, and the rationality of the research design was judged to make corresponding improvements.

The specific design of each submeter is as follows:

(1) Green transformational leadership

Green transformational leadership was measured using the Green Transformational Leadership Scale developed by Robertson (2018) as a reference, consisting of 12 items, such as "My leader will spend time improving the environmental skills of employees in order to improve the environmental performance of the organization". The Cronbach's Salpha coefficient of the scale is greater than 0.7, and the internal consistency reliability is good.

(2) Employee's environmental behavior

The measurement of employees' environmental protection behavior adopts the environmental protection organizational citizenship behavior measurement scale developed by Boiral and Paillé (2012) as a reference, with a total of 13 items, such as "I will encourage my colleagues to adopt more environmentally friendly behavior". The Cronbach's alpha coefficient of the scale is greater than 0.7, and the internal consistency reliability is good.

(3) Green self-efficacy

The green self-efficacy scale developed by Huang (2016) was used as a reference to measure green self-efficacy, with four items in total, such as "I believe I have the ability to take actions to alleviate global warming and abnormal climate change". The Cronbach's Salpha coefficient of the scale is greater than 0.7, and the internal consistency reliability is good.

(4) Enterprise environmental protection atmosphere

The environmental climate of the enterprise was measured using the Environmental Passion Climate Measurement Scale developed by Robertson and Barling (2013) as a reference, consisting of 10 questions, such as "we are passionate about environmental protection". The Cronbach's Salpha coefficient of the scale is greater than 0.7, and the internal consistency reliability is good.

4.1.3. Data Collection

(1) Determination of sample size and object

In this study, online and offline data were collected, and online data were mainly collected through the "Wenjuanxing" platform. The research team made full use of the advantages of the platform and social relations to issue questionnaires to on-the-job employees in many places across the country. The data collected offline were mainly from the employees of relevant enterprises in Lanzhou. The members of the research team contacted relevant enterprises in advance and randomly distributed the paper version of the questionnaire to the employees after obtaining their consent.

(2) Data collection

A total of 194 electronic questionnaires and 177 paper questionnaires were collected for this study. After removing invalid questionnaires with unreliable data, such as too many same options for different items and too short answer time, 307 valid questionnaires were obtained with effective recovery rate of 82.75%. According to the software running results, the data are integrated and processed twice, and the results are statistically and analyzed to find the realistic significance of the data results.

4.2. Data Analysis and Hypothesis Testing

4.2.1. Statistics of Basic Characteristics of Samples

SPSS25.0 was used for descriptive statistical analysis of the obtained data, and the results are shown in the following table. As can be seen from Table 2, subjects in this survey are mainly aged 18-30 years old, accounting for 47.88%, followed by 31-45 years old, accounting for 34.8%. The proportion of male and female was more balanced, accounting for 47.2% and 52.7% respectively. The working years of the interviewees were mainly 5 years or less and 6-15 years, accounting for 33.8%. The proportion of respondents with bachelor's degree was the highest at 35.5%, followed by junior college, senior high school and master's degree, and junior high school was the lowest. The subjects with a salary of 110,000 to 200,000 were the most, accounting for 29.9%, followed by 50,000 to 100,000, 210,000 to 300,000, less than 50,000 and 310,000 to 400,000, respectively. The subjects with an annual income of 410,000 to 600,000 were the least, accounting for only 3.58%.

Table 1. Distribution of basic information of subjects

Characteristics	Category	Frequency	Proportion
Gender	male	145	47.2%
	female	162	52.7%
Age	<18	3	0.98%
	18-30	147	47.8%
	31-45	107	34.8%
	45-60	44	14.3%
	>60	6	1.95%
Years of working	<5	104	33.8%
	6-15	104	33.8%
	16-24	55	17.9%
	25-32	33	10.7%
	33-40	9	2.93%
	>40	2	0.65%
Education background	Junior high school	19	6.19%
	High school	60	19.5%
	college	92	29.9%
	Undergraduate	109	35.5%
	master	27	8.79%
Wage income level (annual income)	<50,000	41	13.3%
	50,000-100,000	81	26.3%
	110,000-200,000	92	29.9%
	210,000-300,000	49	15.9%
	310,000-400,000	23	7.49%
	410,000-600,000	11	3.58%
	610,000-800,000	5	1.63%
	>800,000	5	1.63%

4.2.2. Descriptive Statistics of Variables

Through the correlation analysis of each variable, it can be seen that there is a significant positive correlation between employees' environmental behavior, green self-efficacy, enterprise environmental atmosphere and green transformational leadership at the level of 0.01, the correlation coefficients are 0.76, 0.62, 0.63 respectively. There was a significant positive correlation between green self-efficacy, enterprise environmental environment and

employee environmental behavior at the level of 0.01, and the correlation coefficients were 0.71 and 0.77, respectively. There is also a significant positive correlation between enterprise environmental protection atmosphere and green self-efficacy, with a correlation coefficient of 0.78. This preliminarily explains the relationship between green transformational leadership, employee environmental behavior, enterprise environmental atmosphere and green self-efficacy, but it needs to be further confirmed and tested by regression analysis.

Table 2. The correlation between variables

variables	1	2	3	4	5	6	7	8	9
Gender	--								
Age	-0.12*	--							
Years of working	-0.08	0.85**	--						
Education background	0.09	-0.15*	-0.21**	--					
Wage income level	-0.03	0.30**	0.35**	0.38**	--				
Green transformational leadership	-0.01	0.26**	0.27**	0.31**	0.30**	--			
Employee's environmental behavior	-0.05	0.26**	0.24**	0.19**	0.14*	0.76**	--		
Green self-efficacy	-0.12*	0.26**	0.22**	0.13**	0.13*	0.62**	0.71**	--	
Enterprise Environmental Protection Atmosphere	-0.05	0.26**	0.21**	0.21**	0.17**	0.63**	0.77**	0.78**	--
The mean	1.53	2.68	2.17	4.21	3.03	2.37	2.64	2.70	2.78
The standard deviation	0.50	0.80	0.14	1.05	1.50	0.74	0.73	0.70	0.69

Note : * means P <0.05, ** means P <0.01, *** means P <0.001

4.2.3. Reliability and Validity Analysis

Table 3. Internal consistency reliability of subscales

Subscales	Item number	Internal consistency validity
Green transformational leadership	5	0.92
Employee's environmental behavior	4	0.86
Green self-efficacy	4	0.76
Enterprise Environmental Protection Atmosphere	5	0.87

Note : * means P <0.05, ** means P <0.01, *** means P <0.001

In this study, all variables were measured by the domestic maturity scale. For consideration of rigor, we still verified the reliability and validity of the scale. The reliability analysis results are shown in the table. We conducted reliability analysis on independent variable green transformational leadership, dependent variable employee environmental behavior, mediating variable green self-efficacy and moderating variable enterprise environmental atmosphere scale. Their Cronbach's Salpha coefficients were 0.916, 0.864, 0.759 and 0.870, respectively. All are greater than 0.75, indicating that each subscale has good internal consistency reliability,

belonging to high reliability coefficient, indicating that the internal consistency of each scale is good.

Next, validity test was conducted and exploratory factor analysis method was adopted. The results are shown in Table 4. KMO values 11 were 0.898,0.806,0.745 and 0.814,respectively. The KMO coefficient values of each variable were all above 0.8,and the significance of Bartleet sphericity test was $P = 0.000 (<0.001)$,indicating that the scale used in the study had good validity.

Table 4. Validity of subscales

Subscales	Item number	Validity
Green transformational leadership	5	0.90
Employee's environmental behavior	4	0.81
Green self-efficacy	4	0.75
Enterprise Environmental Protection Atmosphere	5	0.81

Note :* means $P < 0.05$,** means $P < 0.01$,*** means $P < 0.001$

4.3. Hypothesis Testing

4.3.1. Mediating Effect Analysis

Table 5. Mediating effect analysis

		Model1	Model2	Model3	Model4
		Employee's environmental behavior	Green self-efficacy	Employee's environmental behavior	Employee's environmental behavior
	Age	0.091	0.219*	0.070	0.025
	Gender	-0.036	-0.108	0.059	0.002
Control variables	Years of working	-0.005	0.083	0.052	0.027
	Education background	0.006	0.200***	0.033***	0.015
	Wage in-come level	-0.116*	-0.042	0.024	-0.090*
The independent variables	Green transformational leadership	0.767***	0.617***		0.535***
Intervening variable	Green self-efficacy			0.044***	0.372***
F		71.557***	187.517***	54.622***	86.818***
R ²		0.589	0.381	0.522	0.670
ΔF		335.395***	187.517***	246.876***	73.963***
ΔR ²		0.460	0.381	0.393	0.082

Note :* means $P < 0.05$,** means $P < 0.01$,*** means $P < 0.001$

According to the results in Table 5, the mediation effect is analyzed. It can be seen from Model 1 that the predictive regression coefficient of independent variable green transformational leadership on dependent variable employee environmental behavior is equal to 0.767, $p < 0.05$, indicating a significant positive correlation at the level of 0.05,so hypothesis 1 is valid.

As can be seen from Model 2, the predictive regression coefficient of independent variable green transformational leadership on the mediating variable green self-efficacy is 0.671, $p < 0.05$, which is significantly positively correlated, so hypothesis 2 is valid.

As can be seen from Model 3, the prediction regression coefficient of the mediating variable green self-efficacy on the dependent variable employee environmental protection behavior is equal to 0.044, $P < 0.05$, which is significantly positive correlation at the level of 0.05, so hypothesis 3 is valid.

As can be seen from Model 4, when both green transformational leadership and green self-efficacy are added, the prediction level of green transformational leadership on employees' environmental protection behavior changes from 0.767 to 0.535 coefficient, with the absolute value decreasing. Meanwhile, the prediction regression coefficient of green self-efficacy on employees' environmental protection behavior is equal to 0.372, $P < 0.05$. Therefore, green self-efficacy plays an intermediary role in the relationship between green transformational leadership and employees' environmental behavior. Hypothesis 4 is supported.

4.3.2. Nodal Effect Analysis

Table 6. Analysis of regulatory effect

		Model1	Model2	Model3	Model4
	Age	0.142	0.091	-0.015	-0.015
	Gender	-0.043	-0.036	-0.021	-0.024
Control variables	Years of working	0.205	-0.005	0.049	0.043
	Education background	0.283***	0.006	0.026	-0.025
	Wage in- come level	-0.081	-0.116*	-0.087	-0.082
The independent variables	Green transformational leadership		0.767***	0.478***	0.619***
Adjust the variable	Enterprise Environmental Protection Atmosphere			0.480***	0.572***
Interactive items					
	Green transformational leadership * Enterprise Environmental Protection Atmosphere				-0.214
F		8.901***	71.557***	111.245***	97.540***
R ²		0.129	0.589	0.723	0.724
ΔF		8.901***	335.395***	144.297***	1.167***
ΔR ²		0.129	0.460	0.134	0.001

Note : * means $P < 0.05$, ** means $P < 0.01$, *** means $P < 0.001$

SPSS25.0 was used to test the moderating and mediating effects, and the results of the moderating effects were shown in Table 6. It can be seen from Model 2 that the predictive regression coefficient of independent variable green transformational leadership on dependent variable employee environmental behavior is equal to 0.767, $p < 0.05$, so hypothesis 1 is valid.

As can be seen from Model 3, the net explanatory power of green transformational leadership and enterprise environmental atmosphere on employee environmental behavior is 0.478 ($t = 11.419, P < 0.05$) and 0.480 ($t = 12.228, P < 0.05$), respectively, which are significant, indicating that both of them have significant incremental explanatory power after controlling each other's

effects. However, it can be seen from Model 4 that the prediction regression coefficient of interaction terms between green transformational leadership and enterprise environmental environment on employees' environmental behavior is equal to $\beta = -0.214$, $P < 0.05$,¹³ indicating that the moderating effect is not significant, so hypothesis 5 is not valid.

5. Conclusion

5.1. The Results of the Study

1.Green transformational leadership has a significant positive impact on employees' environmental behavior.Green transformational leadership is a kind of leadership that attaches importance to the green management of the organization,encourages the green development of employees,and achieves the environmental goals of the organization.Therefore,green transformational leadership can not only set an example for employees,but also well convey the concept and goal of environmental protection to employees,which is of great significance to motivate employees' environmental protection behavior.In addition,green transformational leadership can also improve the enthusiasm of employees to participate in environmental protection behaviors by giving individual care and providing various support and help to employees.

2.Green transformational leadership has a significant positive impact on green self-efficacy. Green self-efficacy is an individual's judgment of whether his ability can achieve the expected goal before the occurrence of green behavior.Green transformational leadership practices and actively disseminates the concept of environmental protection in management,and directly demonstrates to employees that leaders attach importance to environmental protection. Employees taking this as an example can effectively promote employees to reach a consensus with their leaders on protection issues,and form a sense of green self-efficacy on this basis.

3.Green self-efficacy has a significant positive impact on employees' environmental behavior.As a kind of subjective self-evaluation,green self-efficacy can indirectly affect individual's behavior motivation in reality.Compared with low self-efficacy employees,green green high self-efficacy employees believe they have enough ability to achieve a given environmental targets,so as to more actively participate in environmental protection activities,namely with high levels of green self-efficacy employees tend to more actively to make environmental protection behavior,and better achieve environmental objectives.

4.Green self-efficacy plays a mediating role between green transformational leadership and employees' environmental behavior.It can be said that in the influence path that green transformational leadership promotes employees' environmental behavior,the increase of employees' environmental behavior is realized through the improvement of employees' green self-efficacy, and the improvement of green self-efficacy is influenced by green transformational leadership. In the process of leadership and management, green transformational leaders convey the concept of environmental protection to employees through their own actions. At the same time,the successful experience of leaders can also improve the sense of green self-efficacy of employees, so that employees are confident in their ability to practice environmental protection,and can participate in environmental protection activities more actively.

5.Corporate environmental climate has no significant moderating effect on the relationship between green transformational leadership and employees' environmental behavior. That is to say, in this study, the influence of enterprise environmental environment cannot be explored through data analysis,which may be caused by the following three aspects. From the aspect of data collection,it is speculated that this study is not comprehensive enough in the types and scope of data collection and the sample size is not large enough.From the aspect of data analysis,it is speculated that the data analysis process is not rigorous and meticulous enough,

which leads to the decrease of significance of regression coefficient. From the theoretical perspective, it may be that this study lacks more powerful theoretical basis and literature support for the influence mechanism between enterprise environmental atmosphere and green transformational leadership and employee environmental behavior. To sum up, according to the conclusion of this study, we need to conduct further reflection and demonstration on this variable in the future, in order to find the appropriate moderating variable to explore the influence path.

5.2. Research Deficiencies and Prospects

First, the sample source is not wide enough. Affected by the epidemic, this study changed the previous way of offline data collection, using questionnaire and other platforms and using the combination of online and offline methods to collect data. Therefore, the range of sample sources is limited, and most of the data are from local enterprises in Lanzhou. Due to regional and resource constraints, these enterprises inevitably have certain impact on the environment in the production process, so the data collected is not comprehensive and accurate. In future studies, subjects selected during data collection should cover all walks of life and regions as far as possible to improve the authenticity and validity of data. Secondly, this study mainly introduces two variables of green self-efficacy and enterprise environmental protection atmosphere as mediating variables and moderating variables, and does not further study the influencing factors of other aspects, so the theoretical model is relatively simple. In the future, we can further explore other possible paths based on other perspectives of green management theory. Finally, this study only focuses on the moderating effect of enterprise environmental climate, and it failed to prove that enterprise environmental climate has a significant moderating effect in the process of this study. Further studies can be carried out in the future to explore various reasons for the insignificant moderating effect of enterprise environmental climate. Other moderating variables that may influence the relationship between green transformational leadership and employees' environmental behavior can also be explored in depth.

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