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A Study on the Impact of Green Transformational Leadership on Employees' Green Behavior

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Abstract

With the promotion of sustainable development concepts, green transformation has become key to achieving low-carbon development.As the executors of strategy, how to effectively motivate employees' green behaviors has become a critical issue in organizational management.This study integrates social exchange and social identity theories to construct a theoretical model with green transformational leadership as the independent variable, employee green behavior as the dependent variable, perceived cohesion as the mediating variable, and leader-member exchange (LMX) as the moderating variable.This study analyzed 431 valid paired questionnaires.Research findings indicate that green transformational leadership positively influences employees' green behaviors; perceived cohesion mediates this relationship; and leadership-member exchange (LMX) moderates the aforementioned relationship—specifically, high-quality LMX enhances the promotional effect of green transformational leadership on employees' green behaviors.This study mechanistically reveals the pathways through which green leadership influences employees' environmental behaviors, providing empirical evidence and management insights for enterprises to advance green management.

Keywords: Green transformational leadership, Employee green behavior, Perceived cohesion, Leader-member exchange theory

1. Introduction

At present, promoting green development in enterprises is both an intrinsic requirement for ensuring the timely achievement of the goals of "carbon peak by 2030 and carbon neutrality by 2060," and a practical necessity in response to the trend of rapidly expanding global ESG investment. As the primary agents of corporate green development, employees' green behaviors play a crucial role in driving corporate green transformation, enhancing environmental performance, and achieving environmental goals (Hu Jiahao, 2024). Therefore, how to motivate employees to adopt green behaviors through leadership has become a significant topic of academic interest.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

Previous studies have identified antecedent variables influencing employee green behavior, including motivation, cognition, and emotion (Graves et al., 2019; Zhang et al., 2022), responsible leadership, and green servant leadership (Mi et al., 2023). Scholars based on sample studies from the United Kingdom (Robertson & Barlig, 2013) and Nigeria (Kura, 2016) have both confirmed the positive impact of green transformational leadership on employees' green behaviors. Studies have also explored these concepts across different industry contexts. For instance, Yang Junyu (2025) examined how green transformational leadership in agricultural enterprises influences employee green behavior through the chained mediating effects of green human resource management and environmental passion. Hu Jiahao (2024) demonstrated the significant positive impact of green transformational leadership on employee green behavior within tourism enterprises.

Moreover, the impact of leadership is not direct but is achieved by shaping the social and psychological environment of employees. Within organizational environments characterized by high perceived cohesion, individual employees' commitment to the organization and work tasks tends to increase (Yu Chujun, 2025). Therefore, this study infers that perceived cohesion is likely to mediate the relationship between green transformational leadership and employee green behavior.

Leading by example in green practices sends a message that leaders walk the talk, making it easier for employees to understand the value of such behaviors from a utilitarian perspective and more likely to emulate and adopt them in their work (Robertson & Barling, 2013). However, employee responses to leadership initiatives vary significantly among individuals. According to LMX theory, leaders establish differentiated relationships with different subordinates. Some subordinates develop into "inner circle" partners, gaining additional trust, empowerment, and rewards, forming a close, mutually beneficial relationship; the rest remain "outside the circle," with interactions limited to formal job responsibilities. Compared to outsiders, insiders are more adept at detecting and responding to leaders' green signals. Conversely, outsiders are less attuned to such cues, resulting in weaker motivation for green behaviors. Therefore, the quality of LMX theory influences how green transformational leadership affects perceived cohesion. This study posits that the quality of LMX theory may moderate the process by which green transformational leadership impacts perceived cohesion and motivates employees to engage in green behaviors.

In summary, this study integrates social exchange and social identity theories to construct a theoretical model featuring green transformational leadership as the independent variable, employee green behavior as the dependent variable, perceived cohesion as the mediating variable, and LMX theory exerting a moderating effect.This study employs empirical research methods to thoroughly examine the causal pathways through which green transformational leadership influences employee green behaviors, as well as the mediating role of perceived cohesion within these pathways. It further explores how the quality of Leadership-Member Exchange (LMX) theory either strengthens or weakens the impact of green transformational leadership. The research aims to provide theoretical foundations and practical guidance for

Vol. 10, No. 06; 2025

ISSN: 2456-3676

enterprises to effectively implement green management, stimulate employee environmental engagement, and ultimately achieve sustainable development strategic objectives.

2. Theoretical Basis and Research Hypotheses

2.1 Theoretical Basis

2.1.1 Social Exchange Theory

Social exchange theory aims to explain the social interactions and exchange relationships between individuals or organizations. This theory rests upon two fundamental premises: First, at the level of human nature, individuals universally possess a tendency to seek benefits and avoid harm. Second, at the level of interpersonal relationships, interacting parties adhere to the principles of reciprocity and interdependence. The core logic is that human exchange behavior is based on the comparison of rewards and costs. If the outcome is positive and beneficial, individuals or organizations will be motivated to initiate a new round of exchange behavior (Blau, 1964). Social exchange encompasses two primary mechanisms: formal exchange based on explicit contracts involving tangible resources such as money, goods, and services; and informal exchange rooted in non-contractual relationships, mediated by intangible resources like gratitude, pleasure, recognition, appreciation, emotional bonds, or spiritual motivation.

2.1.2 Social Identity Theory

Social identity theory posits that individuals gradually construct their social identity through active cognitive investment and self-categorisation processes. When individuals identify with a specific social group, they develop positive emotional bonds with that group, which helps strengthen cohesion and morale within the group. The process of viewing the group and its members positively is simultaneously accompanied by the construction of the individual's social identity experience, during which an increase in self-esteem becomes evident (Abrams, 1988; Treptes, 2006).

2.2Research Hypotheses

2.2.1Green Transformational Leadership and Employee Green Behavior

The core components of green transformational leadership can be summarized into four fundamental dimensional characteristics: green intellectual stimulation, green personalized care, green motivational encouragement, and green influence. Green intellectual stimulation refers to leaders assisting employees in constructing frameworks for environmental issues, gathering information, contemplating solutions, and developing environmental awareness; Green personalized care means leaders provide tailored coaching support based on employees' varying environmental needs; green motivational encouragement involves leaders using effective methods to ignite employees' enthusiasm and initiative for environmental protection; Green influence refers to leaders consistently demonstrating environmental practices, thereby providing a standardized reference model for employees to develop their environmental value systems and

Vol. 10, No. 06; 2025

ISSN: 2456-3676

undertake concrete environmental actions (Robertson, 2018). It is evident that green transformational leadership influences employees' green behaviors across multiple dimensions.

Green transformational leadership refers to leaders who motivate employees to achieve green objectives and encourage them to exhibit green behaviors exceeding expected levels (Peng Jian, Yin Kui, Hou Nan, 2020). Such leaders not only articulate a clear green vision for employees but also set an example through their own environmentally conscious actions, enabling employees to internalize the organization's environmental goals as personal responsibilities and aspirations. According to social identity theory, employees observe and emulate leaders' values and behavioral patterns, thereby more proactively practicing green behaviors in work and daily life. Therefore, the demonstration and motivation provided by green transformational leadership serve as key external factors driving employees to implement green behaviors. This leads to the following hypothesis:

H1:Green transformational leadership positively influences employees' green behaviors.

2.2.2 Mediating Role of Perceived Cohesion

The personal traits, authority, and management style of leaders exert a profound influence on group composition, norms, and values, thereby shaping the emergence of cohesion (Wu Shijian, Li Ziru, & Quan Ying, 2019). Green transformational leadership fosters a collective sense of belonging within teams by emphasizing the importance of environmental goals and encouraging team members to collaborate toward achieving them, thereby creating a shared conviction that "we are working together for a noble cause."According to social identity theory, when team members share a set of green values and goals under the guidance of a leader, it strengthens their mutual bonds and identification with the team, thereby enhancing overall cohesion.

Employees' proactive green behaviors are not only contributions toward environmental goals but also serve as positive team interactions and social exchange processes. When employees voluntarily sort waste, conserve energy, or propose green innovation suggestions, these prosocial actions foster collaboration and mutual support among team members, thereby cultivating a positive team atmosphere. In cohesive groups, social norms exert greater influence on members. Individuals tend to comply with group norms to avoid exclusion and gain social recognition (Norton, 2015). Concurrently, social identity theory suggests that when employees feel a strong sense of belonging and identification with their team, they internalize the team's goals and values as their own personal objectives and principles (Luu, 2019).

Perceived cohesion refers to an individual member's subjective perception and belief regarding the strength of their relationship with the group (Bollen & Hoyle, 1990). Perceived cohesion facilitates internal group communication, reduces emotional conflict, and enhances leaders' conflict management effectiveness. (Wu, Li, & Quan, 2019). Members of cohesive teams develop a strong sense of “we.” Guided by the reciprocity principle of social exchange theory, employees reciprocate to the team by engaging in behaviors beneficial to the group.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

Simultaneously, based on social identity theory, employees internalize the team's environmental norms, leading to spontaneous action (Kim & Lee, 2020). In this context, employees engage in green behaviors not merely out of personal allegiance to leaders, but also due to their identity as team members, thereby advancing the team's collective objectives. Thus, the green values and behavioral norms advocated by green transformational leadership effectively translate into shared team norms by enhancing employees' perceived cohesion, subsequently motivating them to adopt more green behaviors. This leads to the following hypothesis:

H2a: Green transformational leadership positively influences employees' perceived cohesion.

H2b: Employees' perceived cohesion positively influences their green behaviors.

H2c: Perceived cohesion mediates the relationship between green transformational leadership and employees' green behaviors.

2.2.3 Regulatory Role of LMX

The Leader-Member Exchange Theory (LMX) describes how leaders develop varying relationships with different subordinates, ranging from high quality (based on trust, respect, and obligation) to low quality (based on formal contractual relationships) (Graen & Uhl-Bien, 1995). According to social exchange theory, “insider” employees in high-quality LMX relationships are more likely to actively respond to leaders' green initiatives out of reciprocal obligation and value the high-cohesion team atmosphere fostered by leaders, thereby exhibiting stronger green behaviors (Liao, 2022). Conversely, “outsider” employees with low LMX have weaker social exchange relationships with their leaders, resulting in reduced sensitivity and responsiveness to team environmental goals and cohesion advocated by leadership. Thus, LMX quality moderates the first half of the mediating pathway: “green transformational leadership → perceived cohesion → employee green behavior.” This leads to the following hypothesis:

H3:Employees within high-quality Leader-Member Exchange (LMX) relationships will positively moderate the indirect effect of green transformational leadership on employees' green behaviors through the mediating variable of perceived cohesion. When LMX quality is high, the positive influence of green transformational leadership on perceived cohesion becomes stronger, thereby indirectly promoting employees' green behaviors; when LMX quality is low, this influence weakens.

In summary, this study introduces LMX as a boundary condition and employs perceived cohesion as a mediating variable to construct a theoretical model of the mechanism through which green transformational leadership influences employee green behavior, as depicted in Figure 1.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

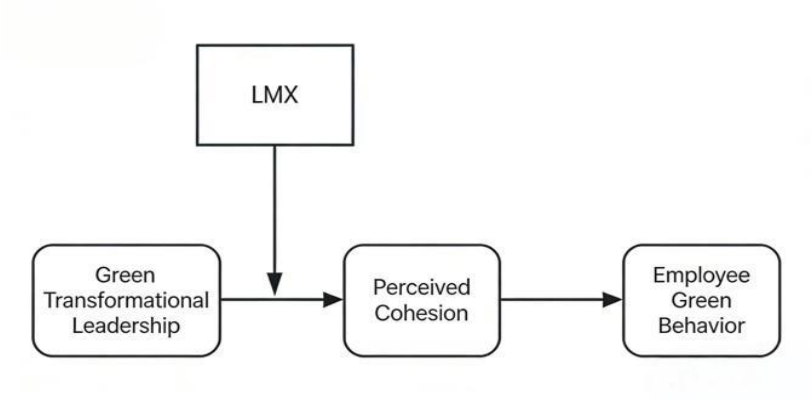

Figure 1. Research Model

3. Study Design

3.1 Research Procedures and Sample

This study employed a questionnaire survey method, selecting 111 enterprises in Zhejiang Province as research subjects. The questionnaires were distributed through two channels: one portion was disseminated via alumni networks by sharing the questionnaire link in the enterprises' DingTalk groups; the other portion was collected anonymously through the Qwixxian platform. To minimize common method bias, data collection was conducted across three time points over a total period of one week.

This study collected a total of 507 questionnaires. After screening for response quality and excluding invalid samples with significantly insufficient response time or excessive content duplication, 431 valid questionnaires were ultimately obtained, involving 431 corporate employees. The valid response rate was 85%. Sample analysis indicates (as shown in Table 1) a well-balanced respondent structure with equitable gender distribution. The majority (80%) are young to middle-aged employees aged 26-45. Educational attainment is generally high, with 81% holding bachelor's degrees or higher. Most employees (73%) have served at their current organization for 1-6 years, enabling them to provide valuable insights into internal organizational perceptions. Furthermore, all sampled enterprises were mature private companies established over 10 years ago, with a workforce of approximately 100 employees.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

Table 1. Sample Distribution

Name	Option	Quantity	Percentage
Name	Male	203	47%
	Female	228	53%
Age	25 years old and below	56	13%
	26-35 years old	198	46%
	36-45 years old	147	34%
	46 years old and above	30	7%
Education Level	High school diploma or below	26	6%
	Associate degree	56	13%
	Bachelor's degree	327	76%
	Master's degree or above	22	5%
Years of Experience	Less than 1 year	34	8%
	1-3 years	134	31%
	4-6 years	181	42%
	7 years and above	82	19%

3.2 Measuring Tools

The following scales all employ a 5-point Likert scale ranging from "1 = Strongly Disagree" to "5 = Strongly Agree." Higher scores indicate a stronger level of perceived green transformational leadership among employees.

3.2.1 Green Transformational Leadership

The Green Transformational Leadership Scale applied in this study was developed by Robertson (2018). It comprises 12 items across three dimensions: green vision shaping, green role modelling, and green intellectual stimulation. In this study, the overall Cronbach's α coefficient for the scale was 0.916, with α coefficients for each dimension ranging from 0.88 to 0.91, indicating extremely high reliability. An example item is: "My leader leads by example, setting an environmentally conscious model for us."

3.2.2 Employee Green Behavior

Employee green behaviors were measured using the scale developed by Graves and Ranganathan (2010), which comprises seven specific behavioral items. The scale demonstrated a Cronbach's α coefficient above 0.80. An example item is: "I will use double-sided copying or printing to conserve paper."

Vol. 10, No. 06; 2025

ISSN: 2456-3676

3.2.3 Perceived Cohesion

The scale used in this study to measure perceived cohesion is the version translated by Liu Yongmei et al. (2011) from Bollen and Hoyl (1990). It comprises six items, with three measuring a sense of belonging and three measuring morale. The Cronbach's α coefficient is 0.893.

3.2.4 Leader-Member Relations

The Leader-Member Exchange (LMX) relationship is measured using the LMX-7 short form. This scale comprises seven items with a Cronbach's alpha coefficient exceeding 0.90. Sample questions include: “How would you describe your supervisor's character? Do you trust everything he/she says?”

4. Data Analysis and Results

4.1 Homogeneity of Variance Test and Reliability and Validity Testing

Since this paper involves scale items, the questionnaire underwent reliability and validity testing. First, dimensional reliability testing was performed on the questionnaire, with results shown in Table 2. It can be observed that Cronbach's Alpha for all five dimensions exceeds 0.8, indicating strong reliability across dimensions. Additionally, the correlation coefficients between revised items and the total score all exceed 0.5, demonstrating that each item is important and should not be removed. The overall reliability coefficient is 0.931, indicating that the questionnaire design demonstrates good reliability.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

Table 2. Reliability Tests

Variable	Title	Revised Item Relevance to Total	Cronbach's α after item deletion	Cronbach'sα
Green Transformational Leadership	A1	0.594	0.851	0.865
	A2	0.621	0.849	
	A3	0.71	0.838	
	A4	0.501	0.862	
	A5	0.637	0.847	
	A6	0.602	0.851	
	A7	0.655	0.845	
	A8	0.618	0.849	
Employee Green Practices	B1	0.595	0.809	0.834
	B2	0.66	0.796	
	B3	0.56	0.816	
	B4	0.607	0.806	
	B5	0.636	0.8	
	B6	0.583	0.811	
Perceived Cohesion	C1	0.612	0.771	0.811
	C2	0.579	0.781	
	C3	0.496	0.804	
	C4	0.585	0.78	
	C5	0.736	0.734	
Leader-Member Relationship	D1	0.615	0.731	0.845
	D2	0.657	0.82	
	D3	0.696	0.846	
	D4	0.531	0.736	
Overall				0.931

This study employed SPSS version 27.0 software to implement the operational steps of Harman's single-factor test, conducting common method bias detection on the collected valid data set. Results from exploratory factor analysis (unrotated) revealed six factors with eigenvalues exceeding 1. Notably, the first factor explained 28.726% of the variance. The example demonstrates that this value is significantly below the critical threshold of 40%. Consequently, common method bias did not exhibit a severe tendency throughout this study and does not pose a significant threat to subsequent data analysis and conclusions.

This study conducted tests to examine the discriminant validity among the four core variables. AMOS software was employed for confirmatory factor analysis. As shown in Table 3, the best-fit indices were maintained by the hypothesized four-factor model, meeting acceptable criteria

Vol. 10, No. 06; 2025

ISSN: 2456-3676

($X^2/DF=2.573<3$, CFI=0.912>0.90, TLI=0.905>0.90, RMSEA=0.060<0.08). In contrast, all competing models with merged factors showed significantly worse fit indices that failed to meet acceptable criteria. This indicates that green transformational leadership, perceived cohesion, LMX, and employee green behavior constitute four distinct constructs. The analysis confirms their good discriminant validity, demonstrating the ability to accurately measure and differentiate each construct.

Table 3. Confirmatory Factor Analysis Model

Multi-factor models	X^2	DF	X^2/DF	CFI	TLI	RMSEA
Four-factor model a	1425.318	554	2.573	0.912	0.905	0.060
Three-factor model b	2010.455	557	3.610	0.862	0.853	0.078
Three-factor model c	1958.741	557	3.516	0.866	0.857	0.077
Three-factor model d	2815.992	557	5.056	0.798	0.784	0.095
Two-factor model e	4150.825	559	7.425	0.665	0.644	0.122
Single-factor model f	6950.374	560	12.411	0.402	0.365	0.162

Note. N=431. a denotes the hypothesized four-factor model: Green Transformational Leadership, Perceived Cohesion, LMX, and Employee Green Behavior as four independent factors. b denotes the three-factor model: Green Transformational Leadership and Perceived Cohesion combined into one factor. c denotes the three-factor model: Green Transformational Leadership and LMX combined into one factor. d denotes a three-factor model: perceived cohesion and LMX are combined into one factor. e denotes a two-factor model: green transformational leadership, perceived cohesion, and LMX are combined into one factor, while employee green behavior forms another factor. f denotes a single-factor model: all four variables are combined into one factor.

4.2 Descriptive Statistics and Correlation Analysis

Table 4 reveals that green transformational leadership is significantly positively correlated with perceived cohesion ($r=0.712$, $p<0.01$). Perceived cohesion is significantly positively correlated with employee green behavior ($r=0.587$, $p<0.01$). Green transformational leadership is significantly positively correlated with employee green behavior ($r=0.645$, $p<0.01$). These correlation results preliminarily support the hypotheses proposed in this study.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

Table 4. Correlation Analysis

Variable	Gender	Age	Years of Service	Education Level	Green Transformational Leadership	LMX	Perceived Cohesion	Employee Green Behavior
Gender	1.000	-0.032	0.041	-0.018	-0.056	-0.048	-0.062	-0.031
Age	-0.032	1.000	-0.312**	-0.210	0.128	0.134	0.118	0.145
Years of Service	0.041	0.312**	1.000	-0.185	0.194*	0.201*	0.178	0.223*
Education Level	-0.018	-0.210*	-0.185	1.000	-0.092	-0.101	-0.087	-0.110
Green Transformational Leadership	-0.056	0.128	0.194*	-0.092	1.000	0.784**	0.712**	0.645**
LMX	-0.048	0.134	0.201*	-0.101	0.784**	1.000	0.698**	0.621**
Perceived Cohesion	-0.062	0.118	0.178	-0.087	0.712**	0.698**	1.000	0.587**
Employee Green Behavior	-0.031	0.145	0.223*	-0.110	0.645**	0.621**	0.587**	1.000
Note. * indicates $p < 0.05$, ** indicates $p < 0.01$ (two-tailed test); N = 431.								

4.3 Hypothesis Verification

This study validated the hypotheses through hierarchical regression analysis, with results presented in Table 5. Model 2 indicates that transformational leadership significantly and positively influences employee green behavior ($\beta=0.708$, $p<0.001$), confirming Hypothesis 1.

In Model 3, perceived cohesion exhibits a significant positive effect on employee green behavior ($\beta = 0.291$, $p < 0.001$), confirming Hypothesis 2b. Concurrently, after incorporating perceived cohesion, the coefficient for green transformational leadership decreases from 0.708 to 0.452 ($p < 0.001$), indicating partial mediation. Hypotheses 2a and 2c are thus supported. Bootstrap testing further confirmed the indirect effect through perceived cohesion with a value of 0.206 (95% CI = [0.134, 0.285]), where the interval did not include zero, thus supporting Hypothesis 2c.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

To examine the moderating effect, an interaction term between green transformational leadership and LMX was constructed. Model 4 shows that the interaction coefficient is significant (β=0.124, $p<0.05$), indicating that LMX strengthens the influence of green transformational leadership on employee green behavior, confirming Hypothesis 3. Simple slope analysis (Figure 2) revealed stronger effects at high LMX levels ($\beta = 0.452$, $p < 0.001$) and weaker effects at low LMX levels ($\beta = 0.411$, $p < 0.001$), further validating the moderation effect.

Finally, the moderated mediating effect was tested using the Bootstrap method. Results are shown in Table 6: the indirect effect value under high LMX levels was 0.158, 95% CI = [0.098, 0.226]; under low LMX levels, it was 0.107, 95% CI = [0.062, 0.162]. The difference in indirect effects between the two groups was 0.051, with a 95% CI of [0.012, 0.098] that did not include zero. This indicates that the moderated mediating effect was significant, confirming Hypothesis 3. LMX moderates not only the direct path but also the indirect path mediated through perceived cohesion.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

Table 5. Stratified Regression Analysis

Variable	Model		Model 2		Model3		Model4	
	B value	P value	B value	P value	B value	P value	B value	P value
Control variables								
Gender	0.102	0.172	0.035	0.589	-0.009	0.902	-0.012	0.861
Age	-0.161	0.058	-0.055	0.389	0.011	0.875	0.008	0.905
Years of Experience	0.195	0.023	0.075	0.261	-0.019	0.758	-0.022	0.718
Education Level	0.135	0.098	-0.005	0.943	0.048	0.398	0.045	0.431
independent variable								
Green Transformational Leadership			0.708	<0.001	0.452	<0.001	0.448	<0.001
Mediators and Moderators								
Perceived Cohesion (Mediator)					0.291	<0.001	0.285	<0.001
LMX (Moderator)					0.186	0.003	0.192	0.002
Interaction effect								
Green Transformational Leadership × LMX							0.124	0.012
Model Statistics								
R^2	0.072		0.581		0.772		0.786	
Adjusted R^2	0.052		0.565		0.758		0.771	
Change in R^2	0.072		0.509		0.191		0.014	
F	2.901		34.288		43.115		39.842	
Change in F	2.901	0.024	118.655	<0.001	41.225	<0.001	6.521	0.012
Note. N = 431, *P < 0.05, **P < 0.01.								

Vol. 10, No. 06; 2025

ISSN: 2456-3676

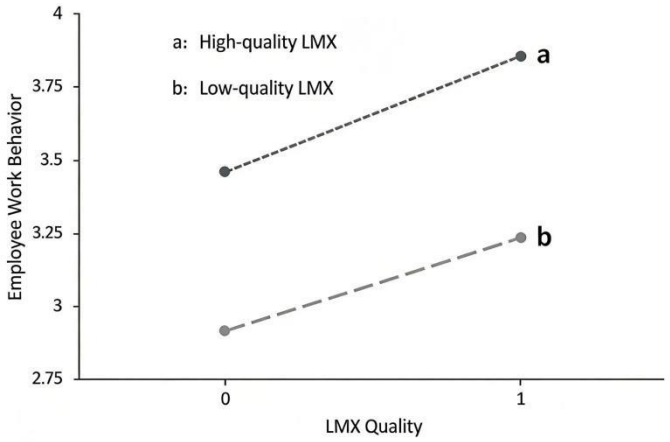

Figure 2. Regulatory Effects Diagram of LMX

Table 6. Validation of Moderated Mediation

Adjustment Variable Level	High LMX Level	Low LMX Level	High-Low Level Difference
Indirect effect value	0.158	0.107	0.051
SE	0.032	0.026	0.022
95%CI	[0.098, 0.226]	[0.062,0.162]	[0.012, 0.098]

5. Research Findings and Implications

5.1 Research Findings

This study demonstrates that green transformational leadership exerts a significant positive influence on employees' green behaviors. Specifically, leaders can effectively mobilize employees' intrinsic motivation by communicating a clear environmental vision, implementing personalized care, providing emotional encouragement, and fostering intellectual stimulation. This enables employees to consciously translate environmental principles into practical actions.

Second, perceived cohesion and LMX theory respectively mediate and moderate this relationship. Specifically, leadership behavior not only directly promotes employees' green practices but also indirectly stimulates green behavior by strengthening team identification and belonging. Furthermore, employees experiencing high-quality LMX are more likely to engage in green behavior as a result of perceived cohesion.

5.2 Management Implications

Based on the aforementioned research findings, enterprises should prioritize the critical role of green transformational leaders in motivating employees' green behaviors when advancing green development strategies.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

Companies should give priority to selecting transformational leaders with environmental awareness and technical expertise. Such leaders must not only comprehend corporate green strategic objectives but also integrate technical strengths with sustainable development. They should guide teams to implement green practices across R&D, production, and other operations, thereby establishing effective alignment between high-level strategy and grassroots execution.
By establishing open green communication channels and agile collaboration mechanisms, leaders can enhance their influence on employee green behaviors. For instance, digital management tools can enable leaders to promptly recognize employees' green innovation contributions, strengthen two-way interaction, and increase employee identification with and engagement in green objectives.

5.3 Research Limitations and Future Directions

The limited sample size of this study and its focus on small and medium-sized enterprises may restrict the comprehensiveness of conclusions when applied to broader business types. Furthermore, due to geographical and industry characteristics, the surveyed entities predominantly consist of technology-based enterprises within Zhejiang Province. Consequently, caution is advised when generalizing the findings to other regions or non-technology sectors.

Future research may consider expanding sample diversity to encompass a broader range of enterprise sizes, industry types, and geographic distributions, thereby enhancing the representativeness and generalizability of the findings. Additionally, longitudinal tracking or cross-regional comparisons could be employed to delve deeper into the influence mechanisms of enterprise type and geographic factors on the research topic, ultimately yielding more universally applicable theoretical contributions and practical insights.

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References

Abrams, D., & Hogg, M. A. (1988). Comments on the motivational status of self-esteem in social identity and intergroup discrimination. European Journal of Social Psychology, 18, 317-334.

Blau, P. M. (1964). Exchange and power in social life. John Wiley & Sons.

Bolen, K. A., & Hoyle, R. H. (1990). Perceived cohesion: A conceptual and empirical examination. Social Forces, 69(2), 479-504.

Du Zhanhe, Wei Zelong, & Gu Meng. (2016). How to reduce the knowledge protection of the outsourcing party in offshore IT outsourcing: A perspective based on social exchange theory. Forum on Science and Technology in China, (12), 110-115.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. The Leadership Quarterly, 6(2), 219-247.

Graves, L. M., & Ranganathan, K. (2010). The Psychology of Green Organizations. In [Chapter in an edited book].

Graves, L. M., & Sarkis, J. (2019). The role of employees' leadership perceptions, values, and motivation in employees' pro-environmental behaviors. Journal of Cleaner Production, 215, 646–660.

Guo Yanyan, Chen Ruonan, & Yuan Baiyun. (2025). Research on the influence mechanism of green responsible leadership on employee green behavior. China Human Resources Science, (04), 59-71.

Hu Jiahao. (2024). Environmental leadership, green self-efficacy, and employee green behavior. Co-Operative Economy & Science, (07), 100-102.

Kim, S. H., & Lee, K. (2020). The effect of perceived coworker support for green behavior on employee green behavior: The mediating role of perceived cohesion and green organizational climate. Sustainability, 12(18), 7676.

Kura, K. M. (2016). Linking environmentally specific transformational leadership and environmental concern to green behaviour at work. Global Business Review, 17(3S), 1S-14S.

Li Wenjing, Yan Lüxin, Bhutto, T. A., et al. (2020). The influence of green transformational leadership on employees' green creativity. Journal of Management Science, 33(02), 87-101.

Liao, Y., Yang, Z., Wang, M., & Kwan, H. K. (2022). The trickle-down effect of green leadership on employees' green behavior: A serial mediation model of green psychological climate and green identity. Journal of Business Research, 149, 283-292.

Liu Jiawei. (2024). Research on collective behavior of online fan communities from the perspective of social identity theory. Journal of Social Science of Hunan Normal University, 53(03), 130-140.

Liu Sujin. (2025). Research on the influence mechanism of corporate environmental commitment on employee green creativity [Master's dissertation, Jiangxi University of Finance and Economics].

Liu Yongmei, Wei Xuhua, & Chen Xiaohong. (2011). Research on the relationship between emotional intelligence, conflict management and perceived cohesion. Science Research Management, 32(02), 88-96.

Luu, T. T. (2019). Building employees' organizational citizenship behavior for the environment: The role of environmentally specific servant leadership and a moderated mediation mechanism. Journal of Business Ethics, 159(4), 1063-1082.

Mi, L., Gan, X., Xu, T., Long, R., Qiao, L., & Zhu, H. (2023). A new perspective to promote sustainable consumption: The influence of servant leadership on sustainable consumption behaviors. Business Strategy and the Environment, 32(4), 2252–2267.

Vol. 10, No. 06; 2025

ISSN: 2456-3676

Norton, T. A., Parker, S. L., Zacher, H., & Ashkanasy, N. M. (2015). Employee green behavior: A theoretical framework, multilevel review, and future research agenda. Organization & Environment, 28(1), 103-125.

Peng Jian, Yin Kui, Hou Nan, et al. (2020). How to motivate employee green behavior? The roles of green transformational leadership and green human resource management practice. Acta Psychologica Sinica, 52(09), 1105-1120.

Robertson, J. L. (2018). The nature, measurement and nomological network of environmentally specific transformational leadership. Journal of Business Ethics, 151(4), 961-975.

Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. Journal of Organizational Behavior, 34(2), 176–194.

Tian Meijie. (2022). The influence of green transformational leadership on employee green behavior [Master's dissertation, East China Jiaotong University].

Trepte, S. (2006). Social identity theory. Psychology of Entertainment, 255, 271.

Wang Huahong. (2023). A meta-analysis of the relationship between environmental transformational leadership and employee green behavior [Master's dissertation, Guangdong University of Finance & Economics].

Wu Shijian, Li Ziru, & Quan Ying. (2019). Leader emotional intelligence, perceived cohesion and conflict management style: The moderating role of emotional climate. Soft Science, 33(08), 110-113+119.

Yang Junyu. (2025). Research on the influence of green transformational leadership in agricultural enterprises on employee green behavior [Master's dissertation, Fujian Agriculture and Forestry University].

Yu Chujun. (2025). Research on the relationship between spiritual leadership and employee work engagement: The mediating role of perceived cohesion. China Venture Capital, (17), 125-127+136.

Zhang, B., Yang, L., Cheng, X., & Chen, F. (2022). How does responsible leadership affect employees' voluntary pro-environmental behavior? A psychological contract breach perspective. Journal of Leadership & Organizational Studies, 29(3), 310–326.

Zou Yanchun, Tian Yiwen, & Peng Jian. (2024). The impact of green transformational leadership on employees' voluntary green behavior: The roles of nature connectedness and power distance orientation. Collected Essays on Finance and Economics, (04), 91-101.