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THE IMPACT OF GREEN TRANSFORMATIONAL LEADERSHIP ON GREEN CREATIVITY IN THE TOURISM INDUSTRY IN HO CHI MINH CITY: THE MEDIATING ROLE OF GREEN THINKING

Loan Thi Duong,
Binh Thanh Ha Nguyen[i]
Van Hien University,
Ho Chi Minh City,
Vietnam

Abstract:
Objective: This study examines the impact of green transformational leadership on green creativity in the tourism industry in Ho Chi Minh City, with a focus on the mediating role of green thinking. **Theoretical Framework:** The study applies Social Learning Theory (Bandura, 1977) and Componential Theory of Creativity (Amabile, 2011) to explain how green transformational leadership shapes employee's cognitive orientation and creative behavior. **Method:** The study applies Covariance-Based Structural Equation Modeling (CB-SEM) to test the proposed model using data collected from 218 managers through purposive sampling based on clearly defined selection criteria. **Results and Discussion:** The results show that green transformational leadership positively affects green thinking and green creativity. In addition, green thinking positively influences green creativity and acts as a mediating variable. **Research Implications:** The study contributes by clarifying the cognitive mechanism linking leadership and creativity in the tourism context and provides practical implications for improving sustainable innovation in tourism enterprises in Ho Chi Minh City. **Originality/Value:** This study provides empirical evidence on the mediating role of green thinking - as a cognitive mechanism - between green transformational.

JEL: M12 – Personnel Management; M14 – Corporate Culture; Social Responsibility; Sustainability; O31 – Innovation and Invention: Processes and Incentives; Q56 – Environment and Development; Sustainability; Z32 – Tourism and Development

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[i] Correspondence: email duongloan2612@gmail.com, binhnht@vhu.edu.vn

1. Introduction

With environmental sustainability increasingly central to organizational strategies, leadership practices play a pivotal role in fostering innovation and creativity aimed at ecological goals. Green transformational leadership has emerged as a critical approach for businesses seeking to integrate sustainability into their operational and strategic frameworks effectively (Li *et al.*, 2020). This leadership style emphasizes visionary guidance, inspirational motivation, intellectual stimulation and individualized consideration specifically directed toward achieving green objectives. Leaders who adopt this approach actively encourage employees to pursue novel solutions that benefit the environment, thereby enhancing green creativity within organizational settings (Ogretmenoglu *et al.*, 2022).

Green creativity refers to the generation of new and practical ideas, processes, products or practices specifically designed to reduce environmental impacts and promote ecological sustainability (Banahene *et al.*, 2024). The pathway through which green transformational leadership influences green creativity remains insufficiently explored, particularly regarding the cognitive mechanisms employees employ when generating environmentally beneficial innovations. Green thinking, defined as a cognitive approach where considerations for the environment prominently guide problem solving and decision making, may serve as a crucial intermediary in this relationship. Despite growing interest in sustainable business practices, empirical research investigating green thinking's mediating role between green transformational leadership and green creativity is limited (Begum *et al.*, 2022).

In the context of Ho Chi Minh City, the tourism industry plays a significant role in economic development but also creates considerable environmental pressure. Despite the importance of sustainability, limited studies have examined how leadership influences green creativity in this specific context. Moreover, previous research has not sufficiently explained the cognitive mechanism through which green transformational leadership affects green creativity. Therefore, this study addresses this gap by examining the mediating role of green thinking in the relationship between green transformational leadership and green creativity in tourism enterprises in Ho Chi Minh City.

The following research questions guide this study:

- How does green transformational leadership affect green thinking?
- How does green transformational leadership affect green creativity?
- How does green thinking affect green creativity?
- Does green thinking mediate the relationship between green transformational leadership and green creativity?

2. Theoretical Framework

2.1 Green Transformational Leadership

Green transformational leadership is a leadership style that emphasizes sustainability and ecological responsibility within organizational practices (Fatoki *et al.*, 2023). This approach aims to inspire and motivate employees to adopt environmentally friendly behaviors while driving innovation in green solutions. Leaders practicing green transformational leadership encourage their teams to think creatively and proactively about sustainable practices, ensuring that environmental goals are integrated into the organization's strategic vision (Ogretmenoglu *et al.*, 2022). Green transformational leaders foster a sense of empowerment and intellectual stimulation, urging teams to challenge traditional practices and explore new, eco-friendly alternatives. By creating a vision of a sustainable future, these leaders inspire employees to strive towards green objectives, enhancing organizational creativity in environmentally responsible ways. Green transformational leadership plays a critical role in shaping a more sustainable and competitive organizational framework by aligning business goals with environmental stewardship (Li *et al.*, 2020).

2.2 Green Creativity

Green creativity refers to the development of innovative ideas, processes, products or practices that prioritize environmental sustainability and aim to reduce negative ecological impacts (Kalyar *et al.*, 2021). This form of creativity encourages the use of resources in ways that minimize harm to the environment while enhancing the overall efficiency and sustainability of organizations. Green creativity is essential for businesses seeking to integrate sustainability into their operations, as it drives eco-friendly innovations that contribute to long-term environmental goals (Jiang *et al.*, 2021). It involves the active exploration of alternative solutions that reduce waste, conserve energy and promote the use of renewable resources. Green creativity fosters a culture of continuous improvement, where employees are encouraged to generate ideas that address environmental challenges and lead to more sustainable practices (Banahene *et al.*, 2024). Green creativity is a powerful tool that enables organizations to respond to the growing demand for sustainable solutions and plays a key role in advancing environmental protection (Li *et al.*, 2020).

2.3 Green Thinking

Green thinking is a cognitive approach that prioritizes environmental considerations in decision-making and problem-solving processes (Begum *et al.*, 2022). This thinking integrates sustainability into everyday business practices, fostering awareness of ecological impacts. By emphasizing the interdependence between human actions and the environment, green thinking encourages individuals and organizations to seek solutions that promote long-term environmental health (Nusraningrum *et al.*, 2023). Green thinking challenges traditional practices and explores innovative ways to reduce waste,

conserve resources and minimize environmental harm. This approach also promotes a shift in organizational culture, making sustainability a core value influencing all aspects of operations. Green thinking drives environmentally responsible behaviors and supports sustainable development goals (Tran, 2024).

Green thinking in this study should be distinguished from related concepts such as green mindfulness and environmental awareness. Environmental awareness generally refers to an individual's level of knowledge, concern, or consciousness about environmental issues. Green mindfulness emphasizes present-moment attention, sensitivity to context, and careful awareness of environmental consequences. Green thinking, as conceptualized in this study, refers more specifically to a cognitive orientation in which environmental considerations are actively integrated into the evaluation of alternatives, the framing of problems, and the generation of solutions in organizational settings. This distinction is important because the present study focuses on the cognitive mechanism linking green transformational leadership to green creativity, and green thinking best captures that mechanism.

2.4 Theoretical Foundations

Social Learning Theory, proposed by Bandura (1977), explains that individuals acquire attitudes, values, and behaviors through observing and interacting with influential role models in their environment. Within organizational contexts, leaders play a crucial role as social models whose behaviors and values shape employees' cognitive and behavioral patterns. In the context of environmental management, green transformational leadership can function as a key social learning mechanism that encourages employees to adopt environmentally oriented thinking. When leaders actively promote sustainability goals and encourage eco-friendly problem solving, employees observe and internalize these values, gradually developing green thinking. As employees increasingly adopt green thinking, they are more likely to generate innovative ideas that reduce environmental impact, thereby enhancing green creativity.

The Componential Theory of Creativity, developed by Amabile (2011), suggests that creativity emerges from the interaction of several core components, including domain-relevant knowledge, creativity-relevant cognitive processes, and intrinsic motivation. Leaders who create supportive environments and stimulate intellectual engagement can significantly enhance employees' creative potential. From this perspective, green transformational leadership can foster green creativity by shaping employees' cognitive orientation toward environmental sustainability. Through intellectual stimulation and inspirational motivation, green transformational leaders encourage employees to reconsider traditional practices and explore environmentally responsible solutions, contributing to the development of green thinking and ultimately strengthening green creativity.

2.5 Hypotheses Development

Green transformational leadership positively influences green creativity by fostering a work environment that values sustainability and encourages innovative environmental solutions (Ogretmenoglu *et al.*, 2022). Leaders who exhibit green transformational behaviors inspire employees to think creatively about ecological challenges, promoting the development of green products, services and processes (Mansoor *et al.*, 2020). Green transformational leadership also plays a crucial role in shaping green thinking by promoting environmental values and encouraging employees to integrate sustainability into their cognitive frameworks (Fatoki *et al.*, 2023). Furthermore, green thinking significantly contributes to green creativity by guiding individuals to generate innovative solutions that align with environmental sustainability goals (Tran, 2024). Green thinking serves as a crucial mediating mechanism through which green transformational leadership enhances green creativity, translating leadership influence into creative, eco-friendly initiatives.

The research proposes the following hypotheses:

H1: Green transformational leadership has a positive impact on green thinking.

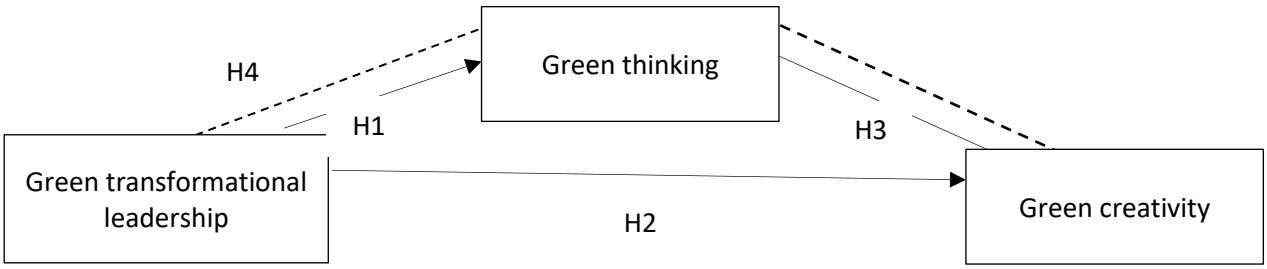
H2: Green transformational leadership has a positive impact on green creativity.

H3: Green thinking has a positive impact on green creativity.

H4: Green thinking mediates the relationship between green transformational leadership and green creativity.

The proposed research model is as follows:

Figure 1: Conceptual framework



Source: Researcher's analysis results (2026)

3. Methodology

The study was carried out in Ho Chi Minh City between October 2025 and December 2025, using a purposive sampling method. It focused on analyzing data from 218 managers of tourism enterprises in Ho Chi Minh City. To ensure the validity of the purposive sampling method, specific selection criteria were applied. First, respondents had to be managers working in tourism enterprises in Ho Chi Minh City, including hotels, travel agencies and tour operators. Second, participants were required to have at least one year of managerial experience to ensure familiarity with organizational

practices. Third, respondents needed to have direct involvement or awareness of environmental or sustainability-related activities within their organizations.

Although the study employs purposive sampling, this approach is appropriate for the research objective because the proposed model examines relationships among latent constructs that require informed managerial evaluation. In the context of tourism enterprises in Ho Chi Minh City, managers are the most relevant respondents because they are directly involved in leadership practices, operational coordination, and sustainability-related activities. Moreover, the sample was drawn from different types of tourism enterprises, including hotels, travel agencies, and tour operators, which helps capture variation across major segments of the local tourism industry. Therefore, the study does not aim for statistical representativeness in the strict probabilistic sense, but rather for analytical relevance by selecting respondents who are capable of providing contextually grounded and reliable assessments.

This study adopts a quantitative research approach. The measurement scales were adapted from previous studies, and the data collection process was conducted using a structured questionnaire. The research framework included three key components: (1) Green transformational leadership, (2) Green thinking, and (3) Green creativity. The measurement scales were adapted from the works of Banahene *et al.* (2024), Fatoki (2023) and Ogretmenoglu *et al.* (2022). The survey used Likert-scale questions to assess perceptions of green transformational leadership and green thinking, as well as their influence on green creativity. The questionnaire was distributed both digitally and in person to maximize participation. Ethical standards were strictly adhered to, including obtaining informed consent and maintaining participant anonymity.

The study employs Covariance-Based Structural Equation Modeling (CB-SEM) using AMOS for data analysis. This method is appropriate because the study aims to test a theoretically grounded model and to evaluate the overall fit between the proposed structure and the observed data. The analysis followed the common two-step procedure in CB-SEM. First, the measurement model was assessed through reliability and validity tests, including factor loadings, Cronbach's alpha, composite reliability, and average variance extracted. Second, the structural model was evaluated through model fit indices and path coefficients to test the proposed hypotheses. The model fit assessment included indicators such as CMIN/DF, CFI, GFI, TLI, and RMSEA. In addition, the mediating role of green thinking was examined within the structural model.

Table 1: Summary of the constructs

Constructs	**Sources**
(1) Green transformational leadership (GL)	Banahene *et al.* (2024)
(2) Green thinking (GT)	Fatoki (2023)
(3) Green creativity (GC)	Ogretmenoglu *et al.* (2022)

Source: Researchers' analysis results (2026).

4. Results And Discussions

4.1 Results

4.1.1 Reliability Analysis

Table 2: The construct's Cronbach's Alpha coefficients

Constructs	Number of items	Cronbach's Alpha
GL	6	0.762
GT	7	0.825
GC	7	0.871

Source: Researcher's analysis results (2026).

The data in Table 2 reveal that the Cronbach's Alpha values for the scales range between 0.762 and 0.871. These results indicate that all scales have a Cronbach's Alpha greater than 0.600, confirming the reliability of the scales used.

4.1.2 Measurement Model

Table 3: The item's loadings and the construct's AVE, VIF and CR

Constructs	Loadings	AVE	VIF	CR
GL	0.65–0.76	0.691	3.547	0.781
GT	0.62–0.68	0.674	3.286	0.802
GC	0.74–0.81	0.705	2.825	0.834

Source: Researchers' analysis results (2026).

The findings in Table 3 indicate that the factor loadings range from 0.62 to 0.81, all of which are above the 0.5 threshold. Additionally, the AVE values vary between 0.674 and 0.705, surpassing the 0.5 benchmark (Hair *et al.*, 2017). The VIF values range from 2.825 to 3.547, well below the 5 threshold (Hair *et al.*, 2017). Furthermore, the composite reliability (CR) values range from 0.781 to 0.834, which are above 0.700 and do not exceed the 0.95 limit (Hair *et al.*, 2017).

4.1.3 Discriminant Validity

Table 4: Correlations of constructs

Constructs	GL	GT	GC
GL	**0.684**		
GT	0.415	**0.722**	
GC	0.371	0.286	**0.749**

Source: Researcher's'analysis results (2026).

The findings in Table 4 indicate that the variables exhibit different values when compared to the others. The bolded values along the diagonal are notably larger than those of the other variables, both vertically and horizontally, confirming discriminant validity. The results align with the criteria set by Hair *et al.* (2017).

4.1.4 Structural Model

As illustrated in Figure 2, the outcomes of the structural equation modeling demonstrate that the CMIN/DF value equals 2.671, remaining below the threshold of 5, thereby fulfilling the model fit criteria. In addition, the indices CFI (0.946), GFI (0.928), and TLI (0.913) all surpass the widely recognized benchmark of 0.9. Moreover, the RMSEA statistic, recorded at 0.052, falls within the acceptable limit of 0.08, providing further evidence of the model's validity. Consequently, it is affirmed that the model exhibits a satisfactory fit with the observed data.

Figure 2: Results of structural equation model

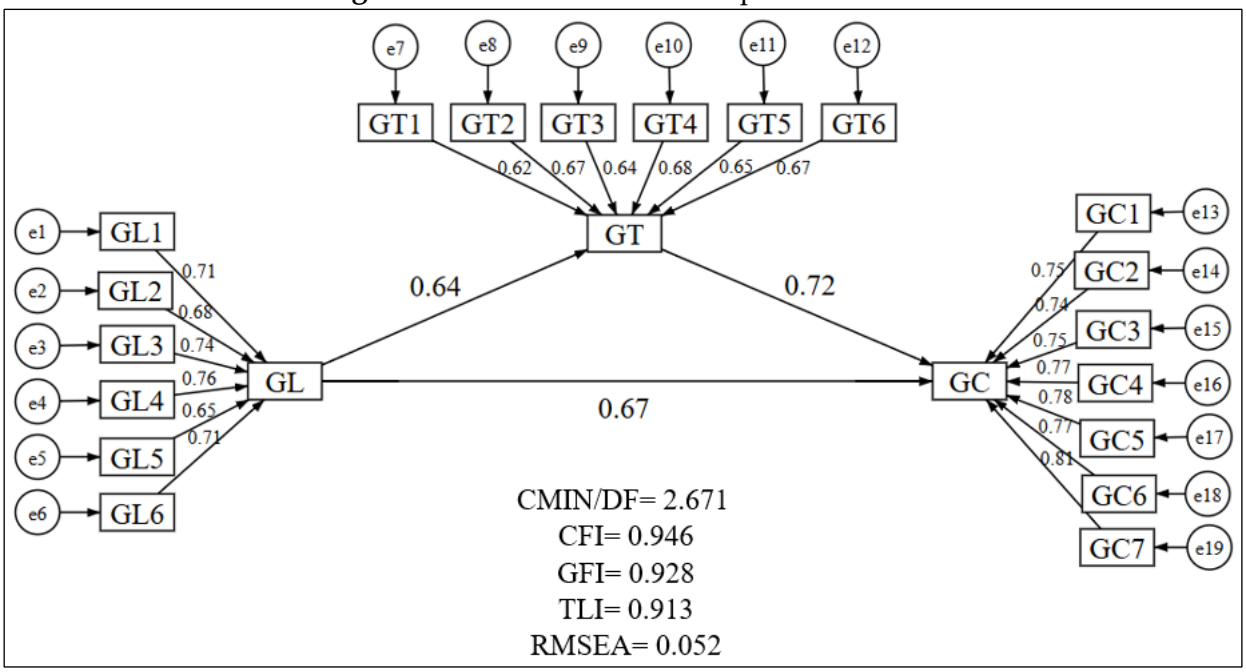


Table 5: Hypothesis testing results

Hypothesis	Paths	Coefficients (standardized)	p-values	Conclusions
H1	GL → GT	0.64	0.021	H1 is supported
H2	GL → GC	0.67	0.004	H2 is supported
H3	GT → GC	0.72	0.000	H3 is supported
H4	GL → GT → GC	0.46	0.001	H4 is supported

Source: Researcher's analysis results (2026).

The findings in Table 5 indicate that hypothesis H1 is supported, with an impact coefficient of $\beta = 0.64$ at $p = 0.021$, confirming that green transformational leadership positively influences green thinking. Furthermore, hypothesis H2 is validated at $p = 0.004$, with an impact coefficient of $\beta = 0.67$, demonstrating that green transformational leadership positively affects green creativity. Additionally, hypothesis H3 is affirmed at $p = 0.000$, with a significant impact coefficient of $\beta = 0.72$, indicating that green thinking has a positive effect on green creativity. Lastly, hypothesis H4 is also supported at $p = 0.001$, with an impact coefficient of $\beta = 0.46$, establishing that green thinking mediates the relationship between green transformational leadership and green creativity.

4.2 Discussion

The study revealed that green transformational leadership positively influences green creativity, which aligns with the findings of Mansoor *et al.* (2021). Additionally, it was shown that green transformational leadership positively affects green thinking, consistent with the results of Nusraningrum *et al.* (2023). The research also demonstrated that green thinking has a positive impact on green creativity, which corresponds with the findings of Tran (2024). Furthermore, this study identifies the mediating role of green thinking in the relationship between green transformational leadership and green creativity, presenting a new contribution to the existing literature.

These findings become more meaningful when interpreted in the specific context of tourism enterprises in Ho Chi Minh City. The tourism industry in this city operates under growing environmental pressure while also facing intense competition, rising customer expectations, and increasing attention to sustainable destination development. Under such conditions, green transformational leadership becomes especially important because employees are often required to balance service efficiency, customer satisfaction, and environmental responsibility at the same time. Leaders who consistently communicate environmental values and encourage sustainable action can shape not only employee motivation but also the way employees cognitively interpret day-to-day work situations. This helps explain why green transformational leadership is significantly associated with both green thinking and green creativity in the present study.

The findings of this study are also consistent with Social Learning Theory, which emphasizes that individuals learn behaviors and cognitive patterns through observation and imitation of role models. In this context, green transformational leaders act as influential models who demonstrate environmentally responsible behaviors and values. Employees observe these behaviors and gradually internalize them, leading to the development of green thinking. Moreover, as employees adopt this cognitive orientation, they are more likely to generate environmentally friendly ideas, which supports the observed relationship between green thinking and green creativity.

From the perspective of the Componential Theory of Creativity, the results also align with the role of cognitive processes and intrinsic motivation in fostering creativity. Green thinking reflects creativity-relevant cognitive processes that guide employees in identifying and solving environmental problems. At the same time, green transformational leadership creates a supportive organizational environment that enhances intrinsic motivation through inspiration and intellectual stimulation. The mediating role of green thinking in this study further confirms that cognitive processes serve as a key mechanism linking leadership and creative outcomes, as suggested by Amabile (2011).

The mediating role of green thinking indicates that leadership alone is not sufficient without fostering an appropriate cognitive orientation among employees. In the context of Ho Chi Minh City, tourism businesses must also consider industry-specific characteristics such as seasonality and fluctuating customer demand. These factors may influence how green practices are implemented and how creativity is expressed. More

broadly, the findings suggest that the development of sustainable innovation in tourism enterprises depends not only on formal environmental policies but also on leadership-driven cognitive change among employees. Organizations that cultivate green thinking are likely to be better positioned to generate creative responses to sustainability challenges.

5. Conclusion

The study demonstrates that green transformational leadership positively influences green creativity, green thinking, and that green thinking serves as a mediating cognitive mechanism in the relationship between green transformational leadership and green creativity. These findings contribute to the existing literature by clarifying the cognitive pathway through which leadership shapes sustainable innovation in tourism enterprises in Ho Chi Minh City.

To foster green creativity through the improvement of green transformational leadership, companies should incorporate environmental sustainability into their fundamental principles, making it a key factor in leadership actions and decision-making processes. Top management must demonstrate visible commitment to green goals, serving as role models who inspire a shared vision for ecological responsibility. Establishing performance evaluation systems that include sustainability-related indicators helps reinforce accountability. Organizations should also foster open communication channels that allow employees to contribute ideas and collaborate on environmental initiatives. Providing sufficient resources, autonomy and support for green projects empowers leaders to drive innovation effectively. Leadership training programs should emphasize environmental values, sustainable development principles and the skills necessary to inspire pro-environmental behavior.

To boost green thinking in tourism companies in Ho Chi Minh City, businesses should incorporate environmental factors into their policies, operational procedures and performance metrics. Developing interactive learning environments can stimulate critical thinking about environmental issues. Organizations can implement suggestion systems where employees submit green ideas, with top proposals piloted and celebrated. Collaboration with external partners such as non-governmental organizations, green tech startups or academic institutions can expose staff to fresh perspectives and new solutions. Providing recognition and incentives for eco-friendly innovations can further encourage active participation. By normalizing environmentally responsible thought processes, organizations create a culture where sustainability becomes the core perspective guiding innovation and daily decisions.

Further research could expand the sample to other cities and examine additional cognitive and motivational mediators. Future studies may also explore moderating variables such as organizational culture, environmental regulations, or industry-specific characteristics that may influence the relationships identified in this study.

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Conflict of Interest Statement
The authors declare no conflicts of interest.

About the Author(s)
Loan Thi Duong and Binh Thanh Ha Nguyen are lecturers at Van Hien University, Ho Chi Minh City, Vietnam. They are currently doing research on the impact of green transformational leadership on green creativity in the tourism industry in Ho Chi Minh city, Vietnam.

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