
The Influence of Green Human Resource Management and Green Transformational Leadership on Environmental Performance: The Mediating Role of Green Psychological Climate

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Abstract

This study aims to analyze the influence of green human resource management and green transformational leadership on environmental performance, both directly and through the mediating role of green psychological climate. This research employs a quantitative approach with the simple random sampling method, involving 221 hospital leaders from Surakarta City and Karanganyar Regency as respondents. Data were analyzed using Structural Equation Modeling (SEM) based on Partial Least Squares (PLS) version 4.0.9.9, enabling simultaneous testing of relationships between variables. The results reveal that green human resource management and green transformational leadership have a positive and significant influence on Environmental Performance, both directly and through Green Psychological Climate as a mediator. These findings highlight that creating a green psychological climate in the workplace can enhance employees' awareness and commitment to eco-friendly initiatives, ultimately driving improvements in hospital environmental performance. From a theoretical perspective, this study supports the Resource-Based View (RBV) by demonstrating that green human resources and green transformational leadership can serve as sustainable competitive advantages. From a practical standpoint, the findings recommend that hospital management adopt green human resource management policies, strengthen green transformational leadership styles, and foster a work climate that promotes sustainability. This study also identifies limitations, such as its limited geographical scope, and suggests future research using qualitative methods and broader coverage to enhance result generalization.

Keywords: green human resource management, green transformational leadership, green psychological climate, environmental performance

1. Introduction

Climate change and environmental degradation have become pressing global issues, urging organizations to adopt sustainable practices in their operations (Daily & Huang, 2001; Renwick *et al.*, 2013). The healthcare sector, including hospitals, is no exception to this responsibility due

to its contribution to medical waste and high energy consumption (Sattari *et al.*, 2020; Zhang *et al.*, 2021). Therefore, the implementation of green human resource management and green transformational leadership is crucial for driving better environmental performance (Yong *et al.*, 2020; Pham *et al.*, 2020). Green human resource management refers to the integration of environmentally friendly practices into human resource management, while green transformational leadership focuses on leadership that inspires employees to achieve environmental goals (Jabbour *et al.*, 2013; Chen *et al.*, 2014). This study is also based on the Resource-Based View (RBV) theory, which emphasizes that valuable, rare, inimitable, and non-substitutable (VRIN) organizational resources and capabilities can serve as sources of sustainable competitive advantage (Barney, 1991; Wernerfelt, 1984). In this context, green human resource management and green transformational leadership are considered strategic resources that can enhance an organization's environmental performance (Hart, 1995; Russo & Fouts, 1997).

As an environmentally focused management practice, green human resource management can create unique organizational capabilities, such as an eco-friendly culture and employee skills that support sustainability (Daily & Huang, 2001; Renwick *et al.*, 2013). Meanwhile, green transformational leadership is regarded as a rare human resource due to leaders' ability to inspire and motivate employees toward achieving environmental goals (Chen & Chang, 2013; Robertson & Barling, 2013). By leveraging these resources, hospitals can build sustainable competitive advantages through improved environmental performance (Hart, 1995; Russo & Fouts, 1997). The RBV theory also supports the role of green psychological climate as a mediator, as green psychological climate reflects an organization's capability to create a work environment that fosters green initiatives, ultimately enhancing environmental performance (Norton *et al.*, 2014; Paillé *et al.*, 2014). Green human resource management has been identified as a key driver in improving organizational environmental performance (Renwick *et al.*, 2016; Tang *et al.*, 2018). Green human resource management practices, such as green recruitment, training, and rewards, can shape employee behaviors that support sustainability (Paillé *et al.*, 2014; Dumont *et al.*, 2017). Additionally green human resource management can cultivate an environmentally conscious organizational culture, which in turn enhances employees' commitment to green practices (Kim *et al.*, 2019; Zibarras & Coan, 2015). However, the effectiveness of green human resource management often depends on the support of transformational and environmentally oriented leadership (Robertson & Barling, 2013; Afsar *et al.*, 2016).

Green transformational leadership plays a key role in motivating employees to adopt eco-friendly behaviors (Robertson & Barling, 2015; Mittal & Dhar, 2016). Transformational leaders with an environmental focus can inspire employees by providing a clear sustainability vision and leading by example in green practices (Chen & Chang, 2013; Graves *et al.*, 2013). Green transformational leadership can also strengthen the relationship between green human resource management and environmental performance by creating a psychological climate that supports green initiatives (Norton *et al.*, 2015; Raineri & Paillé, 2016). Green psychological climate refers to employees' collective perception of their organization's commitment to environmental sustainability (Norton *et al.*, 2014; Zientara & Zamojska, 2018).

Green psychological climate is considered a critical mediator between green human resource management, green transformational leadership, and environmental performance (Paillé *et al.*, 2014; Norton *et al.*, 2017). Green psychological climate reflects the extent to which employees feel that their organization values environmental sustainability, which can influence their motivation and behavior (Kim *et al.*, 2019; Zientara & Zamojska, 2018). Previous studies have shown that green psychological climate can amplify the effects of green human resource management and green transformational leadership on environmental performance by increasing employees' awareness and commitment to green practices (Norton *et al.*, 2015; Raineri & Paillé, 2016). Therefore, understanding the role of green psychological climate as a mediator is essential for optimizing the impact of green human resource management and green transformational leadership on environmental performance (Paillé *et al.*, 2014; Chen *et al.*, 2015).

This study focuses on hospitals in Surakarta City and Karanganyar Regency, regions experiencing significant healthcare sector growth (Suryani *et al.*, 2020; Wulandari *et al.*, 2021). Hospitals in these areas face challenges in reducing their environmental impact while maintaining high-quality healthcare services (Prasetyo *et al.*, 2019; Raharjo *et al.*, 2020). By integrating green human resource management, green transformational leadership, and green psychological climate, this research aims to provide insights into how hospitals can enhance their environmental performance (Yong *et al.*, 2020; Pham *et al.*, 2020). The findings of this study are expected to contribute to sustainability literature and offer practical recommendations for hospital leaders in adopting environmentally friendly practices (Jabbour *et al.*, 2013; Chen *et al.*, 2014).

2. Literature Review

2.1 Green Human Resource Management (GHRM)

Green human resource management refers to the integration of environmentally friendly practices into human resource management functions, such as recruitment, training, performance evaluation, and sustainability-focused rewards (Renwick *et al.*, 2013; Yong *et al.*, 2020). Green human resource management aims to shape employee behavior that supports environmental sustainability through green training programs, environmentally driven recruitment, and incentive systems that encourage eco-friendly practices (Paillé *et al.*, 2014; Dumont *et al.*, 2017). Studies have shown that green human resource management can enhance employee awareness and commitment to environmental issues, which in turn contributes to improving an organization's environmental performance (Tang *et al.*, 2018; Kim *et al.*, 2019). Moreover, green human resource management is also considered a strategic resource that can create a sustainable competitive advantage for organizations (Jabbour *et al.*, 2013; Daily & Huang, 2001). Thus, green human resource management not only promotes eco-friendly practices but also fosters a sustainable organizational culture (Renwick *et al.*, 2016; Zibarras & Coan, 2015).

2.2 Green Transformational Leadership (GTL)

Green transformational leadership is a leadership style that inspires and motivates employees to achieve environmental goals through a clear vision, intellectual stimulation, and individual

consideration (Robertson & Barling, 2013; Chen & Chang, 2013). Environmentally focused transformational leaders can create collective commitment to sustainability by serving as role models in eco-friendly practices (Graves *et al.*, 2013; Mittal & Dhar, 2016). Green transformational leadership also plays a role in strengthening the relationship between green human resource management and environmental performance by fostering an organizational climate that supports green initiatives (Norton *et al.*, 2015; Afsar *et al.*, 2016). Studies suggest that green transformational leadership can enhance employees' pro-environmental behavior and drive green innovation within organizations (Chen *et al.*, 2014; Robertson & Barling, 2015). Thus, green transformational leadership is a key factor in transforming organizational values and behaviors towards sustainability (Graves *et al.*, 2013; Mittal & Dhar, 2016).

2. 3 Green Psychological Climate (GPC)

Green psychological climate refers to employees' collective perception of their organization's commitment to environmental sustainability and the extent to which eco-friendly practices are supported by management (Norton *et al.*, 2014; Zientara & Zamojska, 2018). Green psychological climate reflects how employees perceive their work environment as supporting green initiatives, which can influence their motivation and behavior (Paillé *et al.*, 2014; Raineri & Paillé, 2016). Studies suggest that green psychological climate acts as a mediator between green human resource management, green transformational leadership, and environmental performance by increasing employees' awareness and commitment to eco-friendly practices (Norton *et al.*, 2015; Kim *et al.*, 2019). Additionally, green psychological climate can amplify the impact of transformational leadership on employees' pro-environmental behavior (Chen *et al.*, 2015; Zientara & Zamojska, 2018). Thus, green psychological climate serves as a critical element in creating a work environment that fosters sustainability (Norton *et al.*, 2017; Raineri & Paillé, 2016).

2. 4 Environmental Performance (EP)

Environmental performance refers to the extent to which an organization successfully achieves its environmental goals, such as waste reduction, efficient energy consumption, and lower carbon emissions (Daily & Huang, 2001; Renwick *et al.*, 2013). Environmental performance is influenced by various factors, including green human resource management practices, leadership styles, and green psychological climate (Tang *et al.*, 2018; Pham *et al.*, 2020). Studies suggest that green human resource management and green transformational leadership can enhance environmental performance by shaping employee behavior that supports sustainability (Chen *et al.*, 2014; Robertson & Barling, 2015). Moreover, green psychological climate acts as a mediator that strengthens the relationship between green human resource management, green transformational leadership, and environmental performance (Norton *et al.*, 2015; Paillé *et al.*, 2014). Thus, improving environmental performance depends not only on organizational policies and practices but also on employees' commitment and perception of their work environment (Kim *et al.*, 2019; Zientara & Zamojska, 2018).

3. Hypothesis Development

3.1 Green Human Resource Management and Environmental Performance

Green human resource management is a human resource management practice that focuses on integrating environmental values into organizational policies and procedures, such as recruitment, training, and sustainability-based rewards (Renwick *et al.*, 2013; Yong *et al.*, 2020). Green human resource management practices can enhance employees' awareness and commitment to environmental issues, which in turn promotes eco-friendly behaviors and improves an organization's environmental performance (Paillé *et al.*, 2014; Tang *et al.*, 2018). Thus, the more effectively green human resource management is implemented, the better the environmental performance achieved by the organization. Therefore, the following hypothesis is proposed:

H1: Green Human Resource Management has a positive influence on Environmental Performance

3.2 Green Transformational Leadership and Environmental Performance

Green transformational leadership is a leadership style that inspires and motivates employees to achieve environmental goals through a clear vision and exemplary leadership (Robertson & Barling, 2013; Chen & Chang, 2013). Environmentally focused transformational leaders can create collective commitment to sustainability and drive green innovation within organizations (Graves *et al.*, 2013; Mittal & Dhar, 2016). Therefore, green transformational leadership is expected to enhance environmental performance by increasing employees' pro-environmental behaviors. Hence, the following hypothesis is proposed:

H2: Green Transformational Leadership has a positive influence on Environmental Performance

3.3 Green Human Resource Management and Green Psychological Climate

Green psychological climate reflects employees' perceptions of their organization's commitment to environmental sustainability and the extent to which eco-friendly practices are supported by management (Norton *et al.*, 2014; Zientara & Zamojska, 2018). Green human resource management, through practices such as green training and sustainability-based rewards, can shape employees' perceptions that their organization values environmental sustainability (Paillé *et al.*, 2014; Dumont *et al.*, 2017). Therefore, effective implementation of green human resource management is expected to create a strong green psychological climate within organizations. Consequently, the following hypothesis is proposed:

H3: Green Human Resource Management has a positive influence on Green Psychological Climate

3.4 Green Transformational Leadership and Green Psychological Climate

Green transformational leadership can influence employees' perceptions of green psychological climate by establishing a clear vision for sustainability and providing support for eco-friendly initiatives (Chen & Chang, 2013; Norton *et al.*, 2015). Transformational leaders who prioritize

environmental sustainability can strengthen employees' perceptions that the organization is committed to green practices (Graves *et al.*, 2013; Raineri & Paillé, 2016). Thus, green transformational leadership is expected to enhance the green psychological climate within organizations. Therefore, the following hypothesis is proposed:

H4: *Green Transformational Leadership has a positive influence on Green Psychological Climate*

3.5 Green Psychological Climate and Environmental Performance

Green psychological climate reflects employees' collective perceptions of their organization's commitment to environmental sustainability, which can influence their motivation and behavior in supporting eco-friendly practices (Norton *et al.*, 2014; Zientara & Zamojska, 2018). A strong green psychological climate can increase employees' awareness and commitment to environmental issues, which in turn contributes to improved environmental performance within organizations (Paillé *et al.*, 2014; Kim *et al.*, 2019). Thus, the stronger the green psychological climate, the better the environmental performance achieved. Therefore, the following hypothesis is proposed:

H5: *Green Psychological Climate has a positive influence on Environmental Performance*

3.6 Mediating Role of Green Psychological Climate

Green psychological climate can serve as a mediator between green human resource management and environmental performance by shaping employees' perceptions that the organization is environmentally responsible, which in turn fosters eco-friendly behaviors (Norton *et al.*, 2015; Paillé *et al.*, 2014). Green human resource management, through practices such as green training and sustainability-based rewards, can create a strong green psychological climate, which subsequently enhances environmental performance (Dumont *et al.*, 2017; Raineri & Paillé, 2016). Therefore, green psychological climate is expected to mediate the effect of green human resource management on environmental performance. Thus, the following hypothesis is proposed:

H6: *Green Psychological Climate mediating the influence of Green Human Resource Management on Environmental Performance*

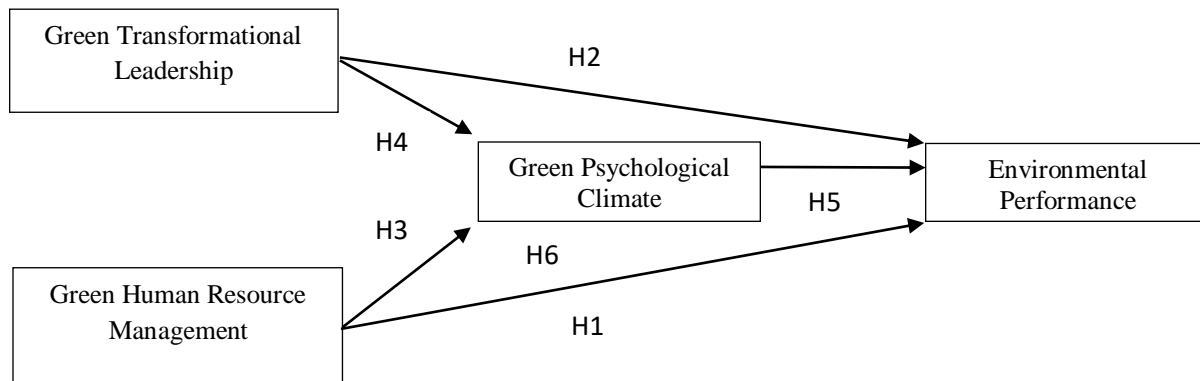


Figure 1. Theoretical Framework

4. Method

4.1 Data collection and procedure

This study employs a quantitative approach with a simple random sampling technique to select 221 hospital leaders from two regions, Surakarta City and Karanganyar Regency. The simple random sampling method was chosen to ensure that each hospital leader has an equal chance of being selected as a sample, thereby improving the generalizability of the research findings (Sekaran & Bougie, 2016). Data analysis was conducted using Structural Equation Modeling (SEM) based on Partial Least Squares (PLS) version 4. SEM-PLS was selected due to its capability in examining complex relationships between variables, including mediation effects, as well as its flexibility in handling non-normally distributed data (Hair *et al.*, 2017). By utilizing SEM-PLS, this study can simultaneously test hypotheses, validate both the structural and measurement models, and ensure the robustness of the research framework. Furthermore, SEM-PLS allows for data analysis with a relatively small sample size while still producing accurate estimations (Hair *et al.*, 2019). Therefore, this method is considered appropriate for addressing the research objectives and testing the proposed relationships between variables.

4.2 Instrument design and variable measurement

The instrument design in this study refers to measurement scales that have been validated in previous studies to ensure construct reliability and validity. Green human resource management is measured using a scale from Dumont *et al.* (2016), which includes indicators such as green recruitment, environmental training, and sustainability-based reward systems. Green transformational leadership is measured using a scale from Chen and Chang. (2013), which includes dimensions of inspirational motivation, intellectual stimulation, and individualized consideration in an environmental context. Green psychological climate is measured using a scale from Norton *et al.* (2015), which includes employees' perceptions of organizational support for environmental issues. Environmental performance is measured using a scale from Kim *et al.* (2019), which includes indicators such as emission reduction, energy efficiency, and waste management. All variables are measured using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), to ensure consistency and ease of questionnaire completion (Hair

et al., 2017). The validity and reliability of the instrument are tested using Confirmatory Factor Analysis (CFA) in SEM-PLS to ensure that each indicator meets the criteria for convergent and discriminant validity (Henseler et al., 2016).

5. Analysis and Results

The evaluation of the measurement model in Smart PLS uses the Fornell-Larcker criterion to test discriminant validity by comparing the square root of the AVE (Average Variance Extracted) of each construct with the correlations between constructs. If the square root of the AVE is greater than the correlations between constructs, discriminant validity is satisfied (Fornell & Larcker, 1981). Additionally, R² is used to assess the predictive power of the model, where R² > 0.25 is considered weak, > 0.50 moderate, and > 0.75 strong (Hair et al., 2017). Q² (predictive relevance) is calculated using the blindfolding procedure to evaluate the model's predictive capability; a Q² value > 0 indicates that the model has predictive relevance (Henseler et al., 2016). During the processing steps, various statistical tests were conducted using Smart PLS 4.0.9.9 to successfully identify and confirm errors found in the field. This involved assessments of validity, reliability, and hypothesis testing, leading to the development of the following outer model:

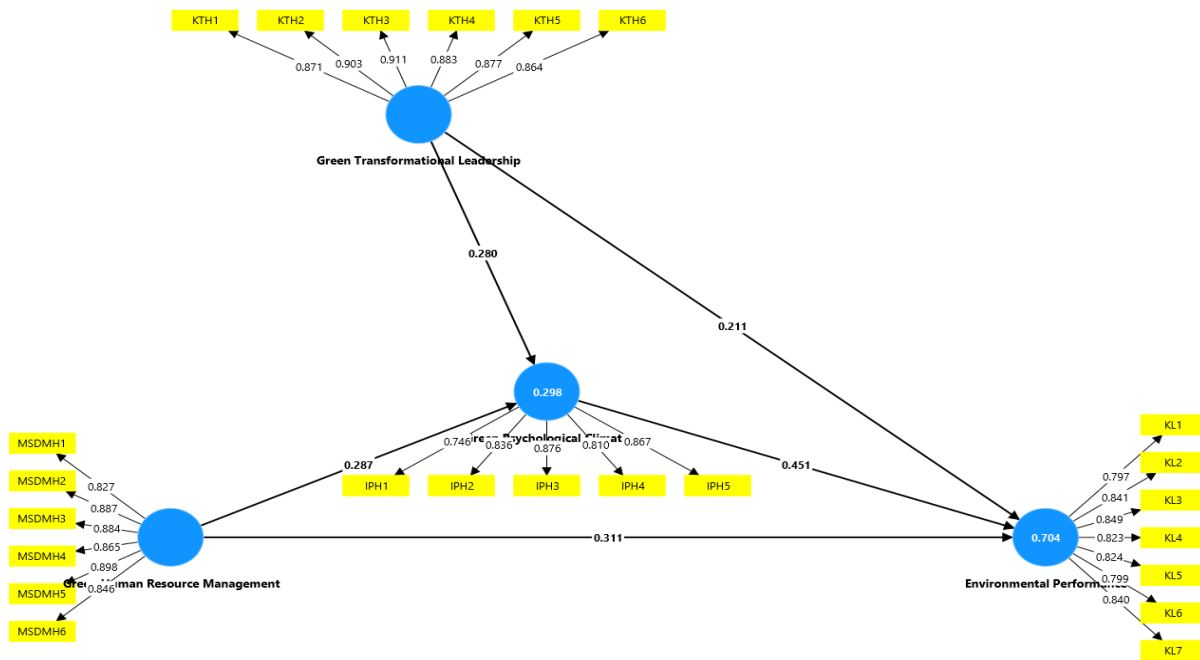


Figure 2. Measurement Model

We evaluated reliability, discriminant validity, convergent validity, and outer loadings in order to evaluate the reflective measurement model. In accordance with the recommendations given by Hair et al. (2017), convergent validity was examined utilizing outer loadings and the average-variance-extracted (AVE). All element factor loadings fall within the recommended range of 0.6,

as Table 1 shows (Chin *et al.*, 2008). The recommended 0.5 is likewise exceeded by the AVE values, which show the total variance explained by the latent constructs (Hair *et al.*, 2014). Next, we assessed discriminant validity using the Fornell-Larcker Criterion. The findings of this evaluation are shown in Table 2, which confirms appropriate discriminant validity by demonstrating that each construct's square root of the AVE (diagonal values) is larger than its corresponding correlation coefficients (Fornell & Larcker, 1981). Reliability was assessed using Cronbach's alpha and composite reliability, with a suggested cutoff of 0.7 for each metric (Hair *et al.*, 2014). As indicated in Table 1, all latent constructs have composite reliability ratings and Cronbach's alpha values above this threshold. Overall, the research found that each construct could be adequately tested for discriminant validity, convergent validity, and reliability. Consequently, we tested the study hypotheses and assessed the structural model using Smart PLS 4.0.9.9. The coefficient of determination (R^2) and predictive relevance (Q^2) were used in the structural model evaluation. The R^2 score for each endogenous variable indicates how much of the variance it contributes to. According to Hair *et al.* (2019), R^2 values are poor below 0.25, moderate around 0.5, and significant over 0.75.

Table 1. Construct Validity and Reliability

Indikator			Factor Loading	CA*	CR*	rho_a	AVE
Green Management	Human	Resource		0.935	0.948	0.939	0.754
GHRM1			0.827				
GHRM2			0.887				
GHRM3			0.884				
GHRM4			0.865				
GHRM5			0.898				
GHRM6			0.846				
Green Transformational Leadership				0.944	0.956	0.945	0.783
GTL1			0.871				
GTL2			0.903				
GTL3			0.911				
GTL4			0.883				
GTL5			0.877				
GTL6			0.864				
Green Psychological Climate				0.885	0.915	0.886	0.686
GPC1			0.746				
GPC2			0.836				
GPC3			0.876				
GPC4			0.810				
GPC5			0.867				
Environmental Performance				0.922	0.937	0.923	0.680
EP1			0.797				
EP2			0.841				

EP3	0.849
EP4	0.823
EP5	0.824
EP6	0.799
EP7	0.840

Source : Data Processed, 2025

One of the requirements for assessing discriminant validity is that the square root of the AVE for each variable must be greater than the correlation coefficients between the constructs, as listed in Table 2. The AVE for Environmental performance in this study has a squares root of 0.849, which is higher than its correlations with other variables. This demonstrates the acceptable discriminant validity of the correlation variables. Likewise, the square roots of the AVE for each of the other variables are greater than the correlations between them. Consequently, the assessment of discriminant validity has been finished satisfactorily.

Table 2. Fornell-Larcker Criterion

	EP	GHRM	GPC	GTL
EP	0.825			
GHRM	0.728	0.868		
GPC	0.725	0.526	0.828	
GTL	0.713	0.855	0.526	0.885

Source : Data Processed, 2025

All of the constructs used as endogenous variables in this study had R² values that are considered to be at a reasonable level, as seen in Table 3. In particular, green transformational leadershipyo accounts for 70.4% of the explanation of green human resource management and 29.8% of the explanation of environmental performance. The blindfolding procedure was then used to analyze predictive significance, with a focus on Q² data. According to Hair *et al.* (2017), a model with suitable predictive significance is indicated by a Q² value greater than 0. Q² values are classified as high (0.35), moderate (0.15), and minor (0.02) by Chin (1998). Table 3 shows that each endogenous factor has a considerable degree of predictability with respect to the corresponding exogenAAous variable.

Table 3. R² & Q²

Endogenous Laten Construct	R ²	Q ²
EP	0.704	0.471
GPC	0.298	0.194

Source: Data Processed, 2025

6. Hypothesis Testing

The four hypotheses in this study were examined using the PLS-SEM method. Hypothesis testing was carried out with a t statistic larger than 1.96 and a significant level of 0.050 (or 5%) using the boot strapping technique in the SmartPLS application (Hair *et al.*, 2022).

Table 4. Result of Direct Effect

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
H1	GHRM > EP	0.311	0.312	0.077	4.035	0.000
H2	GTL > EP	0.211	0.210	0.077	2.734	0.006
H3	GHRM > GPC	0.287	0.287	0.108	2.664	0.000
H4	GTL > GPC	0.280	0.280	0.127	2.211	0.027
H5	GPC > EP	0.451	0.450	0.046	9.731	0.000

Source: Data Processed, 2025

Table 5. Result of Indirect Effect

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
H6	GHRM > GPC > EP	0.129	0.129	0.051	2.540	0.011

Source: Data Processed, 2025

7. Discussion

7.1 Green Human Resource Management and Environmental Performance

The results of the hypothesis 1 test show that green human resource management has a positive and significant effect on environmental performance, with a coefficient of 0.311 and a p-value of 0.000. These findings are consistent with previous research conducted by Renwick, Redman, and Maguire (2013), which stated that green human resource management practices, such as green recruitment, environmentally friendly training, and sustainability-based reward systems, can enhance employees' awareness and commitment to environmental issues, ultimately having a positive impact on organizational environmental performance. Additionally, the study by Jabbour *et al.* (2010) also supports these findings by demonstrating that the integration of green human resource management into corporate strategies can improve resource efficiency and reduce environmental impact. This indicates that green human resource management not only focuses on conventional human resource management but also integrates sustainability values into every aspect of human resource management.

Furthermore, research by Daily and Huang (2001) revealed that attention to human resource factors in environmental management can be a key success factor in achieving sustainability. They emphasized that green human resource management practices, such as environmental training and incentives for environmentally friendly behavior, can shape an organizational culture that supports sustainability. In addition, Zibarras and Coan (2015) also found that green human resource management can increase employee commitment to environmentally friendly practices, which ultimately contributes to improved environmental performance. Therefore, these findings not only strengthen the Resource-Based View (RBV) theory, which states that strategically managed human resources can become a competitive advantage, but also provide empirical evidence that green human resource management is a key factor in achieving better environmental performance.

7.2 Green Transformational Leadership and Environmental Performance

The results of the hypothesis 2 test show that green transformational leadership has a positive and significant effect on environmental performance, with a coefficient of 0.211 and a p-value of 0.006. These findings are consistent with the study by Chen and Chang (2013), which stated that environmentally focused transformational leaders can motivate employees to achieve sustainability goals through a clear vision and exemplary environmentally friendly practices. In addition, research by Robertson and Barling (2013) also supports these findings, demonstrating that green transformational leadership can enhance employee commitment to environmentally friendly practices, which ultimately contributes to improved environmental performance. This indicates that environmentally oriented transformational leadership not only inspires employees, but also helps create an organizational culture that supports green initiatives.

Furthermore, research by Graves, Sarkis, and Zhu (2013) revealed that green transformational leadership can strengthen the relationship between green management practices and employees' pro-environmental behaviors. They emphasized that environmentally focused transformational leaders can create a work climate that encourages green innovation and motivates employees to actively participate in sustainability efforts. In addition, Mittal and Dhar (2016) also found that green transformational leadership can enhance green creativity and innovation within organizations, which ultimately has a positive impact on environmental performance. Therefore, these findings not only reinforce the Resource-Based View (RBV) theory, which states that transformational leadership can serve as a strategic resource, but also provide empirical evidence that green transformational leadership is a key factor in achieving better environmental performance.

7.3 Green Human Resource Management and Green Psychological Climate

The results of the hypothesis 3 test show that green human resource management has a positive and significant effect on green psychological climate, with a coefficient of 0.287 and a p-value of 0.000. These findings are consistent with the study by Norton *et al.* (2015), which stated that green human resource management practices, such as environmental training and sustainability-based reward systems, can shape employees' perceptions that their organization is committed to

environmental issues. Additionally, research by Paillé *et al.* (2014) also supports these findings, demonstrating that green human resource management can increase employee awareness of sustainability values, ultimately creating a strong green psychological climate. This indicates that green human resource management not only directly influences employee behavior, but also helps shape a collective perception of the importance of environmentally friendly practices in the workplace.

Furthermore, the study by Kim *et al.* (2019) revealed that green human resource management can enhance employee commitment to green practices through the creation of a supportive green psychological climate. They emphasized that when employees perceive that their organization cares about environmental issues, they are more likely to feel motivated to engage in green initiatives. In addition, Dumont, Shen, and Deng (2017) also found that green human resource management can influence employees' green values, which ultimately contributes to the formation of a strong green psychological climate. Therefore, these findings not only strengthen the Resource-Based View (RBV) theory, which states that strategically managed human resources can become a source of competitive advantage, but also provide empirical evidence that green human resource management is a key factor in creating a supportive green psychological climate that drives sustainability.

7.4 Green Psychological Climate and Green Psychological Climate

The results of the hypothesis 4 test show that green transformational leadership has a positive and significant effect on green psychological climate, with a coefficient of 0.280 and a p-value of 0.027. These findings are consistent with the study by Chen and Chang (2013), which stated that environmentally focused transformational leaders can shape a green psychological climate by providing a clear vision of sustainability and motivating employees to achieve environmental goals. Additionally, the study by Robertson and Barling (2013) also supports these findings, showing that green transformational leadership can enhance employees' perceptions of their organization's commitment to the environment, which ultimately helps create a strong green psychological climate. This indicates that environmentally oriented transformational leadership not only directly influences employee behavior, but also helps shape collective perceptions about the importance of environmentally friendly practices in the workplace.

Furthermore, the study by Graves, Sarkis, and Zhu (2013) revealed that green transformational leadership can strengthen the relationship between green management practices and employees' pro-environmental behavior by creating a supportive green psychological climate. They emphasized that environmentally focused transformational leaders can create a work environment that encourages green innovation and actively involve employees in sustainability efforts. In addition, Mittal and Dhar (2016) also found that green transformational leadership can enhance green creativity and innovation within organizations, which ultimately contributes to the development of a strong green psychological climate. Therefore, these findings not only reinforce the Resource-Based View (RBV) theory, which states that transformational leadership can serve as a strategic resource, but also provide empirical evidence that green transformational leadership is a key factor in creating a supportive green psychological climate that drives

sustainability.

7.5 Green Role of Green Psychological Climate

The results of the hypothesis 5 test show that green psychological climate has a positive and significant effect on environmental performance, with a coefficient of 0.451 and a p-value of 0.000. These findings are consistent with the study by Norton *et al.* (2015), which stated that green psychological climate can improve environmental performance by shaping employees' perceptions that their organization is committed to environmental issues. Additionally, the study by Paillé *et al.* (2014) also supports these findings, showing that green psychological climate can increase employee commitment to environmentally friendly practices, which ultimately contributes to enhanced organizational environmental performance. This indicates that green psychological climate not only affects employee motivation, but also encourages pro-environmental behavior that can enhance overall environmental performance.

Furthermore, the study by Kim *et al.* (2019) revealed that green psychological climate can strengthen the relationship between green management practices and employees' pro-environmental behaviors. They emphasized that when employees feel that their organization cares about environmental issues, they are more likely to be motivated to engage in green initiatives. Additionally, Dumont, Shen, and Deng (2017) also found that green psychological climate can influence employees' green values, which ultimately contributes to the creation of a strong green psychological climate. Therefore, these findings not only reinforce the Resource-Based View (RBV) theory, which states that strategically managed human resources can become a competitive advantage, but also provide empirical evidence that green psychological climate is a key factor in improving environmental performance.

7.6 Mediating Role of Green Psychological Climate

The results of the hypothesis 6 test show that green psychological climate plays a significant mediating role in the relationship between green human resource management and environmental performance, with an indirect effect coefficient of 0.129 and a p-value of 0.011. These findings are consistent with the study by Norton *et al.* (2015), which stated that green psychological climate can strengthen the relationship between green human resource management practices and environmental performance by improving employees' perceptions that their organization is committed to environmental issues. Additionally, the study by Paillé *et al.* (2014) also supports these findings, showing that green human resource management can affect employees' perceptions of organizational commitment to the environment, which ultimately impacts enhancing environmental performance. This indicates that green psychological climate not only mediates the relationship between green human resource management and environmental performance, but also strengthens the impact of green human resource management on environmental performance by increasing employees' awareness and commitment to environmentally friendly practices.

Furthermore, the study by Kim *et al.* (2019) revealed that green psychological climate can strengthen the relationship between green management practices and employees' pro-environmental behaviors. They emphasized that when employees feel that their organization cares about environmental issues, they are more likely to be motivated to engage in green initiatives. Additionally, Dumont, Shen, and Deng (2017) also found that green psychological climate can influence employees' green values, which ultimately contributes to creating a strong green psychological climate. Therefore, these findings not only reinforce the Resource-Based View (RBV) theory, which states that strategically managed human resources can become a competitive advantage, but also provide empirical evidence that green psychological climate is a key factor in improving environmental performance through the mediation of the relationship between green human resource management and environmental performance.

8. Implication

This research underscores that the implementation of green human resource management and green transformational leadership can significantly enhance hospital environmental performance. Implementing green human resource management, such as employee training on eco-friendly practices and reward systems for green initiatives, can create a supportive psychological climate among staff, which in turn will improve energy efficiency, waste management, and sustainable resource use. Additionally, green transformational leadership can motivate employees to be more environmentally conscious, encouraging active participation in sustainability programs. By adopting these strategies, hospitals in Surakarta and Karanganyar can not only improve their environmental performance but also contribute to broader public health and environmental sustainability in the region.

9. Conclusions

This study concludes that green human resource management and green transformational leadership have a significant positive influence on environmental performance, both directly and indirectly through the green psychological climate. These findings strengthen the Resource-Based View (RBV) theory by demonstrating that internal resources such as green human resource management and green transformational leadership can serve as a sustainable competitive advantage for organizations, particularly in the context of hospitals in Surakarta and Karanganyar. Practically, this study recommends that hospital management adopt green human resource management practices, such as environmentally friendly training programs and sustainability-based reward systems, while also strengthening transformational leadership styles that focus on environmental aspects. In addition, creating a strong green psychological climate can enhance employees' awareness and commitment to environmentally friendly practices, which will ultimately improve the organization's environmental performance. However, this study has several limitations, such as the limited geographical scope and the quantitative approach, which does not deeply uncover contextual factors. Therefore, future research is recommended to expand the geographical coverage, combine qualitative methods to gain a deeper understanding of employee perspectives, and consider other variables such as organizational culture and government policies that could moderate or mediate the relationship between green human

resource management, green transformational leadership, and environmental performance. Thus, this study not only provides theoretical contributions but also practical implications that can assist organizations in achieving their environmental sustainability goals.

10. Limitation and Suggestion

This study has several limitations that provide opportunities for future research development. First, it focuses solely on hospitals in Surakarta City and Karanganyar Regency, limiting the generalizability of the findings to other sectors or regions. Second, the quantitative approach used offers insights into the relationships between variables but does not explore contextual factors that might influence the results. Therefore, future research is recommended to expand the scope of the study area, incorporate qualitative methods to gain deeper insights into employees perspectives, and consider other variables, such as organizational culture and government policies, which may moderate or mediate the relationship between green human resource management, green transformational leadership, and environmental performance.

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