



## The Synergistic Effects of Green Recruitment and Training on Employee Performance: Moderation by Transformational Leadership

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### Abstract

This study investigates the parallel effects of green recruitment and green training on Employee performance when transformational leadership applies as a moderating force. Green recruitment matches qualified candidates with environmental values through recruitment processes, whereas green training teaches employees the abilities required for supporting environmentally friendly practices. The researchers used validated scales to gather quantitative data from 205 public educational staff members throughout the Gilgit-Baltistan province in Pakistan. Research based on regression and mediation, and moderation analysis demonstrated that green recruitment practices with green training elements result in enhanced employee performance. Such findings demonstrate how transformational leadership enhances environmental culture development. Strategic information for human resource professionals emerges from this study about how they can blend green HRM and leadership into their performance management systems. Organizations that practice Green HRM alongside leadership support experience significant performance benefits from their employees in sustainability work.

**Keywords:** Green recruitment, Green Training, Employee performance, Transformational Leadership

### Introduction

#### Background: Importance of Green HRM, Sustainability, and Employee Performance

Organizations worldwide have made sustainability central to their strategic planning in recent years. Organizations use Green Human Resource Management (Green HRM) as their primary approach to establish environmental sustainability within workplace operations. This approach requires implementing HR techniques that help organizations achieve environmental targets including green recruitment and green training, according to (Khan et al., 2023). Organizations have two core methods to select sustainable-minded employees and develop their environmental competence through career development (Smith & Zhang, 2024). The rising pressure on organizations to respond to environmental issues creates an imperative for them to establish support between employee conduct and sustainability targets. Professional success in business depends on sustainability practices at present, while employee performance needs transformational

changes (Jones & Patel, 2023). Environmental performance improves among employees when their green recruitment matches the organizational objectives, while they receive training to generate sustainable outcomes. Energetic employee participation increases as staff members become dedicated to significant targets, including environmental responsibility which leads to improved performance levels (Ahmed et al., 2025). The Ability-Motivation-Opportunity (AMO) theory stands as the foundation for this research because it demonstrates how performance outcomes improve when employees receive necessary abilities from green recruitment and motivational training and enabling leadership opportunities. Integration of green HRM practices with transformational leadership at the government education sector shows great potential to improve employee performance while advancing sustainability.

### **Problem Statement:**

Green HRM continues to grow in importance, yet we lack clear comprehension about how green recruitment and green training create their combined effect on employee performance. Research on these components shows individual focus by (Guerci et al., 2023) while ignoring their combined impact. The literature lacks sufficient research to understand how transformational leadership influences the relationship between green recruitment and employee performance. Studies need to investigate how transformational leadership affects the performance outcomes from integrated green recruitment and training programs because this leadership approach demonstrates known effects on employee motivation. This research fills the current gap by studying green recruitment and training as combined elements to affect employee performance while investigating whether transformational leadership serves to moderate this relationship.

### **Objectives:**

1. To investigate the role of Green Recruitment and Green Training in enhancing employee performance.
2. To explore the moderating effect of transformational leadership on the relationship between green recruitment and employee performance.
3. To provide insights into how organizations can leverage Green HRM practices to improve sustainability and performance.

### **Research Questions:**

1. How do Green Recruitment and Green Training influence employee performance?
2. What role does transformational leadership play in moderating the relationship between green recruitment and employee performance?
3. How can organizations effectively integrate Green HRM practices and transformational leadership to enhance both sustainability and employee performance?

### **Significance**

**Practical Significance:** Modern organizations face growing pressure to adopt sustainable practices because of environmental challenges across the world. The research findings will offer valuable information that helps HR practitioners create green HRM approaches that drive employee performance, achievement, and sustainability support. Organizations that merge knowledge about green recruitment and training abilities create better HR practices, which successfully fulfill environmental commitments and performance targets (Lee et al., 2023).

As organizations shift toward green business models, the human resources department should adopt a strategic approach to coordinate human capital with environmental targets. The study presents specific methods that help sustainability policies connect with employee conduct. Leaders

in human resources management can use this study to create policies that both develop employee green capabilities and promote sustainable workforce actions (Nasir et al., 2024). Exercising transformational leadership in green HRM practices enables leaders to motivate their employees to cooperate on shared environmental targets, which leads to improved team performance and enhanced employee retention (Chen & Wu, 2025).

**Academic Significance:** Researchers have studied both green recruitment and training alone on employee performance, but the dual effects and leadership impact require further examination. This research will expand knowledge about green HRM by exploring new ways that leadership affects sustainable HR practice results (Mishra & Khan, 2024). The research expands transformational leadership theory applications specifically for green HRM to enhance understanding of performance outcome moderation in this context.

Academic research on Green HRM shows fragmentation because most studies examine environmental outcomes and organizational sustainability without addressing individual-level outcomes regarding employee motivation and engagement (Farooq et al., 2023). The examination of green recruitment in combination with training as HR elements that jointly affect employee responses represents the core contribution of this research.

This study demonstrates support for growing interest in micro-level sustainability research in Human Resource Management that evaluates individual habits and psychological patterns involved in sustainability change processes (Zhang et al., 2023). The study helps enlarge transformational leadership theory through investigating its usage in green environments that researchers have not thoroughly studied (Jabeen & Hussain, 2025). The research establishment aims to provide essential evidence about incorporating environmental sustainability metrics into performance systems, particularly in data-insufficient developing regions.

## LITERATURE REVIEW

### Green Recruitment on Employee Performance

Recruitment is one method of joining an organization. It enables the organizations to attract a sizable applicant pool from which the top applicants may be selected for employment (Chaudhary, 2018). Green recruitment is a paperless employment procedure that leverages internet resources, including email, application forms, and video-based interviews, to lessen its impact on the environment (Mwita, 2019). By bringing organizational sustainability values into line with individual employee values, green recruitment, a developing subset of green human resource management, becoming more widely recognized for its capacity to improve employee performance. This alignment promotes a high-performance culture by increasing employee commitment, motivation, and satisfaction. Because they are chosen not only for their skill set but also for their alignment with the organization's sustainability objectives and eco-friendly principles, employees hired through green recruitment procedures are frequently more engaged at work (Dumont et al., 2017). According to research, this alignment is essential for job satisfaction because workers who believe their work advances larger environmental and societal objectives report feeling more fulfilled and purposeful (Mishra & Sharma, 2016). Furthermore, because they are frequently intrinsically motivated, workers who have high eco-friendly values are more likely to act in ways that support innovation and sustainable business practices, which improves organizational performance (Baum et al., 2020). Employers who hire people who care about the environment, for instance, observe a rise in employee-led projects for waste reduction, energy efficiency, and sustainable operations, which save costs and boost operational performance (Huang & Chen, 2016). Green hiring is essential for creating long-term organizational commitment in addition to inspiring creativity and innovation. Renwick et al. 2013) state that workers who share

an organization's sustainability ideals are less likely to quit, which lowers turnover and related expenses. A more stable workforce is guaranteed by lower turnover, which helps the organization's performance to continuously improve. Additionally, businesses with excellent green hiring practices typically have a stronger employer brand, which draws top talent and keeps top performers who help the company's green goals (Jackson et al, 2010). By attracting people who are not just skilled but also motivated by values that align with the company's goal, this strategic advantage enables enterprises to establish an economic edge in the organization. Therefore, the long-term advantages of green hiring go beyond increased employee happiness and engagement to include a comprehensive boost in organizational performance (Jabbour, 2013). Since workers in sustainable companies frequently report higher levels of mental and physical well-being, which boosts performance and productivity, green hiring can also result in better employee well-being (Tang et al, 2017). Although the advantages are obvious, it is important to remember that the genuineness of green hiring determines how successful it is. Employee disillusionment could have a harmful impact on their performance and the overall results of the company if companies exploit sustainability claims as merely marketing gimmicks without any real commitment (Renwick et al., 2013). Therefore, companies must make sure that their sustainability practices are not just communicated but also truly embedded in the organization's culture and daily operations if they want green hiring to have a major impact on employee performance.

According to this perspective, businesses strive to maintain environmental sustainability in the workplace; to draw in and hire skilled workers, businesses need to understand and create green paths (Leaner et al., 2019). Therefore, considering the company's long-term objectives, the recruiting and selection process should incorporate the corporate organization's environmental culture (Roscoe et al., 2019). Moreover, this would simplify it for organizations to show as of late recruited staff individuals' green natural practices and culture. While assessing worker execution, organizations need to consider enrolling people who can satisfy their essential errands and commitments while monitoring and defending the climate in a naturally cognizant manner (Amrutha and Geetha, 2020). Subsequently, it really should pick splendid laborers who can finish a direction program that incorporates finding out about environmentally friendly sustainability and exhibiting their devotion to the organization's green goals (Azorin et al., 2021).

*H1: "Green Recruitment has a positive and significant effect on Employee Performance".*

#### *Green Training on Employee Performance*

Green training is the most favorable initiative for organizations to make sure that employees can improve their skills to meet the goals of the company (Zaid et al., 2018; Evina, E., et al., 2024). In this, the human resources department plays a critical role in supporting, since they have the role of analyzing training needs and picking the right environmental training option depending on the skills and knowledge gaps of environment-focused employees (Mashala, 2018). It is said that green training is concerned with the environmentally friendly behavior of employees in companies that are more focused on creating an eco-friendly workplace and training staff members to gain necessary knowledge and skills (Pinzone et al., 2019). Green training has developed as a crucial element in sustainable human resource management (HRM), directly influencing employee performance. Organizations worldwide are increasingly adopting green training programs to enhance environmentally friendly awareness and develop skills that support sustainability initiatives. (Jabbour et al., 2024), By teaching staff members about eco-friendly procedures, green training can boost productivity and motivation, which in turn can increase job performance. Employees who receive enough sustainability training build skills that support organizational and

environmental objectives (Zibarras et al., 2024). Additionally, organizations that spend money on green training cultivate an initiative-taking and accountable culture, which raises employee engagement and productivity (Pham et al., 2024). Green training can also help employees become more creative, which will allow them to incorporate eco-friendly methods into their everyday work (Renwick et al., 2024). Increasing employees' environmental knowledge and proficiency is one of the main ways that green training improves worker performance. Employees who receive green training become more adept at sustainable behaviors, which increases productivity and decreases resource waste (Daily et al., 2024). Additionally, because workers believe their employment is relevant and in line with CSR objectives, green training programs are associated with better levels of job satisfaction (Dumont et al., 2024). Organizations that show a commitment to sustainability also see a boost in employee motivation, which improves overall performance and work outcomes (Kim et al., 2024). Additionally, green training improves workers' psychological health, which boosts productivity even more (Govindarajulu et al., 2024), workers who receive sufficient training on green practices report feeling less stressed and more satisfied at work, which improves output and performance. Employees that participate in green initiatives frequently experience a greater sense of success and purpose, which translates into higher levels of motivation and job involvement, according to another study by Aragon-Correa et al. (2024). Additionally, an organization's overall sustainability performance significantly improves when it incorporates green training into their HR procedures. (Ren et al., 2024), green training boosts organizational effectiveness and organizational reputation in addition to improving employee performance on an individual basis. By lowering energy use, cutting waste, and encouraging sustainable resource use, workers who receive green practice training help to save money (Tang et al., 2024). Consequently, companies that put an emphasis on green training enhance employee productivity and link their personnel with sustainability objectives, giving them a competitive edge. Green training programs have many advantages, but there are drawbacks to their adoption (Pinzone et al., 2024), employees frequently oppose organizations because they see sustainability training as an extra burden. To overcome this barrier, companies must integrate green training into their corporate culture and align it with employee incentives and career development plans (Al-Sabi et al., 2024) Furthermore, to guarantee that staff members comprehend the importance of sustainability in improving job performance, successful green training initiatives need strong leadership backing and efficient communication (Ahmad., 2024). To sum up, green training is essential for raising employee performance since it improves environmental understanding, boosts job happiness, and promotes a sustainable culture. Businesses that spend money on green training get a competitive edge, increase efficiency, and creativity. However, obstacles like employee resistance and coordinating green initiatives with organizational objectives must be overcome for implementation to be successful. Green training will continue to be a crucial factor in influencing employee and organizational performance as sustainability gains traction in the business sector. Green training describes a series of exercises aimed at enhancing employees' understanding of environmental conservation and making them aware of important environmental issues to attain environmental goals (Muzammil, 2019). (Geronimo et al., 2020) stated that green training will enhance employees' capacity to recognize environmental problems and select the best-suited solutions. Employee training on company environmental plans and methods, as well as company behaviors that convey company values and facilitate organizational values, the employee performance (Xie et al., 2020). Moreover, the organization will motivate the individuals to acquire the skills needed to realize its vision and objective (Mousa & Othman, 2020).

## *H2 “Green Training has a positive and significant effect on Employee Performance.”*

### *Transformational leadership's moderating role in employee performance*

The transformational leadership has a deep vision about what the organization is currently and will do (Buil et al., 2019; Evina, E., et al., 2024). The second is that the leaders ought to develop their vision, believe in it, and they are able to present and convince their team members to believe in it (Juliano et al., 2023). In recent years, transformational leadership has become more popular as businesses look for sustainable ways to improve worker performance. Leaders who use a transformational leadership strategy encourage their staff to act in ways that benefit the environment, which enhances productivity. (Robertson et al., 2024), By setting a good example, encouraging an eco-friendly workplace culture, and sharing a clear environmental goal, transformational leaders inspire their workforce. Workers under such leadership demonstrate greater levels of dedication and zeal for sustainability projects, which boosts output and job satisfaction (Chen et al, 2024). Additionally, transformational leadership encourages employees to adopt eco-friendly work practices that support organizational and ecological well-being by favorably influencing their attitudes toward environmental sustainability (Mittal et al., 2024). The growth of environmental responsibility and self-efficacy among employees is one of the main factors influencing how transformational leadership affects worker performance. (Afsar et al 2024), workers are more inclined to match their activities with sustainable practices and perform better overall if they believe their leaders are environmentally conscious. Additionally, by giving workers the tools, information, and freedom to conduct green projects in their workplaces, green transformational leaders empower staff members (Singh et al., 2024). Employee productivity and organizational dedication are increased because of this empowerment, since it fosters a sense of accountability and ownership. Furthermore, by motivating staff members to create and execute original solutions for environmental problems, transformational leadership promotes creativity. (Li et al.,2024), Employees perform better on the job and become more involved in problem-solving when leaders encourage sustainability-driven innovation. An engaged and initiative-taking workforce that addresses sustainability issues improves operational efficiency and lessens environmental impact for organizations that adopt transformational leadership (Chuang et al., 2024). Although the term green HRM is used to describe the environmentally beneficial component of HRM strategy that is intended to benefit the business, it is also used to describe the sustainable component of HRM strategy. How they can identify, grow, cultivate, and retain employees who and beliefs embody transformational leadership (Mysirlaki et al., 2020). To achieve high-level leadership values, there is a need for a deep understanding of social behavior. This can occur through robustly possessing moral leadership behaviors, as none other than the leaders themselves are the ones who consistently have rewards and punishments for corrections of harmful behaviors and directing them to the desired kinds (Grošelj et al., 2021). Such green transformational leadership is used to design environmentally friendly HRM practices and strategies in which organizations can reach their pre-determined goals and strategies and make employees efficient (Sun et al., 2022).

### *H3: The moderating role of Transformational Leadership has a positive and significant effect on Employee Performance*

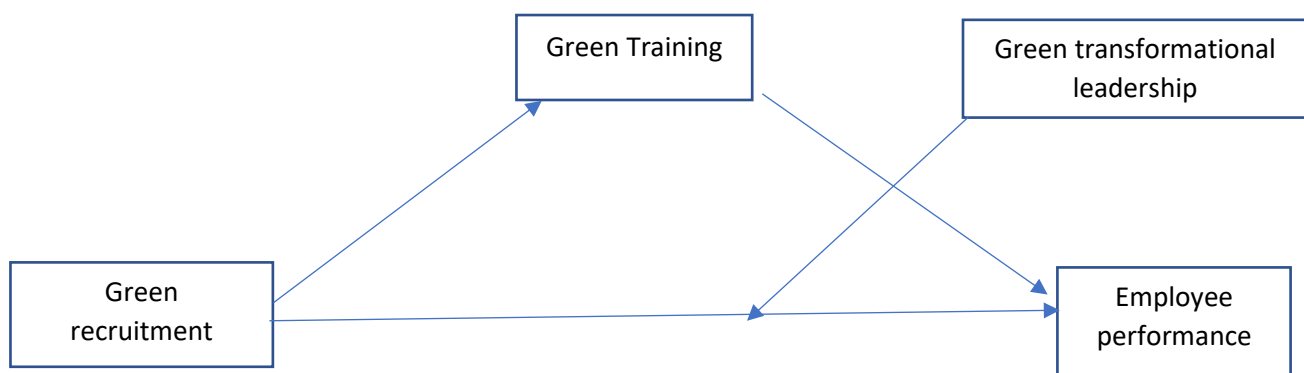
#### **Green Recruitment on Green training**

The connection between green recruitment and green training is reciprocal, as companies that implement green values while recruiting are more likely to attract individuals which favour green initiatives. So, the right attitude towards eco-friendly (green) training creates involvement among

employees and their acceptance of green methods in their work. An impetus for green recruitment is the significant positive impact it can have on green training, as shown by several studies. (Khan and (Qianl,2020) explored this relationship in the healthcare industry, discovering that green recruitment increases the effectiveness of green training programs as workers possessing great environmental consciousness become increasingly involved in sustainability programs. Similarly (Pham et al.,2020), conducted a study aiming to find out the effect of green human resource practices on environmental performance and suggested that organizations that promote environmental considerations at the hiring stage achieve better participation in green training programs, leading to a more progressive culture. Jamil et al. further showed support for this relationship by, in this aspect, (Patali et al.,2023) explored the effects of environmental recruitment in the context of Green Human Resource Management (GHRM) on organizational sustainability. The results of their study indicate that one of these dimensions, green recruitment, has a significant contribution to sustainability performance, and green training is functioning as a mediating factor in the connection between green recruitment and sustainability performance. The results also indicate that employees who are hired when organizations emphasize environmental values tend to have better embrace training outcomes that produce positive environmental results. Similarly, Kamarudin et al. (2020) showed a study on the impact of green recruitment & training upon employees' performance, also highlighting OCBE as a mediating condition. Their research showed that individuals hired under green hiring mechanisms are more engaged in green training, leading to enhanced environmental performance at work.

*H4: Green recruitment has a positive impact on Green Training*

## Theoretical Framework



## Research Methodology

This study takes on a quantitative research design to study the outcome of green recruitment on employee performance, with green training as a mediating variable and transformational leadership as a moderating variable. A correlational methodology is utilized to dissect connections among these factors and decide their direct and indirect impacts.

## Sampling Technique and Population

The information for this examination was gathered utilizing a Convenience sampling technique. The objective population contains employees working in schools in Gilgit-Baltistan. Schools were

chosen given their eagerness to take part and pertinence to the review's attention on green HRM rehearses.

### Measurement Instrument

Approved scales from past examinations were used to gauge the review factors: Green Recruitment is measured utilizing five items adapted by Arul Rajah et al. (2016). Green Training is estimated to utilize four items adapted by Chaudhary (2019). Transformational leadership is measured utilizing eight items adapted by (Mi et al. (2019). Employee performance is estimated to be measured by eight items adapted by Pradhan and Jena (2017). In this study, we used a 5-point Likert scale, going from 1 (strongly disagree) to 5 (strongly agree), to catch respondents' insights.

### Data Analysis

In data analysis, the researcher has done a demographic test, a normality test, a descriptive test, a correlation test, and a Reliability test. Hypothesis test, mediation, and moderation tests in this study. The SPSS research tool is also utilized. Researchers use the Likert Scale, which ranges from 1 to 5, to measure in this case.

### Research Results

#### Definition of Operational Variable

The operating variable seeks to transfer knowledge from one research study to another about the correct way to measure a variable.

**Table 1: Operational variable**

Variable	Operational definitional	Indicator	Citation
Green Recruitment	Green recruitment, also known as green enrollment, is when an organization selects and hires those people who are qualified for their criteria, and they should take care of the organization's objectives as well as green environmental consciousness 1. Due to online platforms for recruitment to decrease paper waste.	Combination of sustainability questions in interviews.	Ahmad, S. (2015).
		Acquisition of individuals with a background in environmental sustainability.	
		According to job performance to promoting them	
Green Training	Green training is the process in which an organization provides training for their existing new employees according	Environmental management in training modules.	Jabbar, M. H., & Abid, M. (2015).



	to the organization's work perspective and with the help of green training, employees' objectives of the organization, as well as to perform sustainability practice.	Workshops are focused on waste reduction and energy efficiency.  Monitoring and feedback on employees' sustainable practices.  Employee participation in green awareness programs.	
Transformational Leadership	Transformational leadership is the one dimension of leadership style that motivates and inspires employees to engage in environmentally sustainable practices by enhancing a shared vision of the organization as well as taking responsibility for social matters.	Pro-environmental actions taken by leaders.  Inspiration of employees to adopt green practice  To effectively communicate of the Employee  Help for innovation in environmentally friendly initiatives	Robertson, J. L., & Barling, J. (2013).
Employee performance	Employee performance is the process in which Employees work efficiently and effectively and achieve organizational objectives, focusing on quality, productivity, and alignment with sustainability goals in a green HRM context.	Accomplishment of task goals with minimal environmental impact.  Improved efficiency in resource operation.  Help with the organization's sustainability objectives.  Established adherence to green policies and practices	Sonnentag, S., & Frese, M. (2002)

**Table 2: Demographics test**

		Frequency	Percent
Age	15-25 years	81	39.5
	25-35 years	96	46.8
	35-45 years	24	11.7
	45-55 years	4	2.0
Gender	Female	29	14.1
	Male	176	85.9
Education level	Master's (18 years of education)	191	93.2
	Ph.D.	14	6.8

Table 2, which includes data from 205 employees categorized by gender, age, and education level, shows the following findings: Most respondents are male, comprising 176 individuals or 85.9% of the sample. Regarding age, most respondents fall within the 25-35 age group, a total of 96 individuals or 46.8%. Regarding educational qualifications, the predominant level is a master's degree, held by 191 respondents, accounting for 93.2% of the sample.

**Table 3: Descriptive statistics**

Variable	Mean	Standard Deviation (SD)	Minimum	Maximum	Skewness	Std. Error (Skewness)	Kurtosis	Std. Error (Kurtosis)
GT	3.69	0.81646	1	5	-1.046	0.17	1.378	0.338
GR	3.63	0.82792	1	5	-0.806	0.17	0.191	0.338
TL	3.83	0.68111	1	5	-1.021	0.17	1.365	0.338
EP	3.93	0.66516	1	5	-1.17	0.17	1.813	0.338

Table 3: The descriptive data collected about the four variables reveals significant patterns. The observation means for four variables fall within the middle segment of the scale as AVG\_GT stands at 3.6890 and GR at 3.6673, while TL reaches 3.8073 and EP stands at 3.9933. These figures point to average values that are moderately elevated through slightly increased. Standard deviation shows medium-range variation from 0.66516 to 0.82792 throughout all measurement variables. All variables display slight left-skewed distribution patterns in their data. The skewness values reveal the concentration of points at the upper areas of the scale, where GT attains -1.046, GR achieves -0.806, TL reaches -1.021, and EP reaches -1.170. The kurtosis data shows that all variables display platykurtic distributions because their values fall below 1.378 and 1.365 and above 0.191 and 1.813. Therefore, their tails have less mass relative to the normal distribution. The distribution of data points for these variables shows symmetry because most values exist on the higher end without significant deviations from a normal distribution.

**Table 4: Reliability Analysis (Cronbach's Alpha)**

To assess the internal consistency of the constructs used in this study, Cronbach's Alpha values were calculated for each variable. All the variables demonstrated acceptable to good levels of reliability:

Variable	Cronbach's Alpha
EP	.840
GR	.788
GT	.799
TL	.829

In this study, the validity of the measurement scales was performed by Cronbach's Alpha values. All variables have shown with an acceptable to good internal consistency as suggested in the result. Employee Performance (EP) showed a Cronbach's Alpha of 0.840, indicating a satisfactory level of reliability. Green Recruitment (GR),  $\alpha = 0.788$  and Green Training (GT),  $\alpha = 0.799$ , reflecting acceptable to good internal consistency. In the case of Transformational Leadership (TL), it has a Cronbach Alpha Value of 0.829, which is also in the good range. All the values are above the minimum acceptable value of 0.70; hence, the instruments measuring these constructions can be considered as dependable and can be used in further analysis.

Correlation analysis shows the direction and strength of the relationship between two variables. In Table 5, all variables are significantly correlated with one another at a 1% significance level.

Correlations

**Table 5: Correlation Analysis**

	GT	GR	GTL	EP
GT	1			
GR	.633**	1		
TL	.608**	.659**	1	
EP	.570**	.579**	.703**	1

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis performed indicates that all variables are significantly and positively related (at the 0.01 level). Green Training (GT) is strongly positively correlated with Green Recruitment (GR),  $r = .633$ ,  $p < .01$  and with Transformational Leadership (TL),  $r = .608$ ,  $p < .01$ . GT Moderate Positive correlation with Employee Performance (EP),  $r = .570$ ,  $p < .01$ . TL is significantly associated with Green Recruitment ( $r = .659$ ,  $p < .01$ ) and EP ( $r = .579$ ,  $p < .01$ ). The greatest relationship was found between TL and EP,  $r = .703$ ,  $p < .01$ , suggesting a huge correlation

of leadership practices with employee outcomes. Overall, the results indicate that employees are performing better because of stronger green HR practices and green leadership.

**Table 6: Hypothesis Testing through Regression**

Hypothesis	B	R	P	Result
GR→EP	.579	.579	.000	Accepted
GT→EP	.459	.564	.000	Accepted
GR→GT	.652	.652	.000	Accepted
TL→EP	.683	.692	.000	Accepted

The research hypothesis passed statistical significance tests and thus validated all theoretical connections. Employee Performance shows a statistically substantial relationship with Green Recruitment (GR) because the beta value reaches 0.579 along with a p-value of 0.000. Green Training (GT) generates positive effects on Employee Performance at the .000 significance level through its beta value measurement of 0.459. The dual implementation of Green Recruitment and Green Training (GR GT) creates an exceptional synergy that deeply affects Employee Performance by producing a beta value of 0.652 and a result p-value of 0.000. The data shows that Transformational Leadership (TL) demonstrates the strongest positive relationship with Employee Performance since it generates a beta value of 0.683 and a p-value of 0.000, indicating its powerful impact on employee outcomes.

**Table 7: Mediation analysis**

Path	Effect	SE	t	p-value	LL 95% CI	UL 95% CI
X → M (GR → GT)	0.6280	0.0539	11.6609	0.0000	0.5218	0.7341
X → Y (Direct effect)	0.2954	0.0570	5.1792	0.0000	0.1829	0.4078
M → Y (GT → EP)	0.2790	0.0575	4.8501	0.0000	0.1656	0.3924
X → M → Y (Indirect effect)	0.1752	0.0440	—	—	0.0949	0.2673

The study reveals important relationships between the investigated variables through its mediation model analysis. The effect of Green Recruitment (GR) on Green Training (GT) stands at 0.6280 with significant statistical values; its t-value reaches 11.6609 while its p-value equals 0.0000 and standard error (SE) amounts to 0.0539. Green recruitment plays a significant role in determining the extent of green training adoption. Employee Performance (EP) has a direct association with Green Recruitment (GR). Its beta coefficient equals 0.2954 while the standard error (SE) amounts to 0.0570 and the t-value reaches 5.1792, which demonstrates statistical significance ( $p = 0.0000$ ). The results indicate that green recruitment methods lead to better employee performance standards. The present study demonstrates that Green Training (GT) creates substantial impacts on Employee Performance (EP) through statistical significance ( $p = 0.0000$ ) with a beta coefficient of 0.2790, and standard error of 0.0575, and a t-value of 4.8501. The research indicates that green training creates enhancements to employee performance. The indirect relationship between Green Recruitment (GR) and Employee Performance (EP) through Green Training (GT) is found to be statistically significant based on a beta coefficient of 0.1752 along with an SE of 0.0440 and a 95% confidence interval (LLCI = 0.0949, ULCI = 0.2673) excluding zero. Green recruitment demonstrates mediation effects on employee performance because green training functions as a mediation factor between these two variables.

**Table 8: Moderation Analysis**

The results of the moderation analysis indicate that the relationship between GR (independent variable) and EP (dependent variable) is significantly moderated by TL (moderator).

TL (W)	Effect	SE	t	p-value	LL 95% CI	UL 95% CI
3.25	0.2324	0.0552	4.2111	0.0000	0.1236	0.3412
4.00	0.1249	0.0529	2.3604	0.0192	0.0206	0.2292
4.375	0.0711	0.0587	1.2112	0.2272	-0.0447	0.1869

The committed organizational performance reached its peak when the combined effect of green recruitment with transformational leadership reached the highest level. Employee performance showed a significant positive correlation to green recruitment when transformational leadership stood at a score of 3.25 ( $\beta = 0.2324$ ,  $p < .001$ , 95% CI [0.1236, 0.3412]). The research determined that at TL = 4.00 transformational leadership levels, the relationship between green recruitment and employee performance was positive yet less pronounced ( $\beta = 0.1249$ ,  $p = .0192$ , 95% CI [0.0206, 0.2292]). Study results showed green recruitment failed to generate significance at high leadership levels (TL = 4.375) with a statistical strength of  $\beta = 0.0711$  and  $p = .2272$  and 95% CI [-0.0447, 0.1869]. The research shows that green recruitment practices enhance performance, yet the practice loses its impact because transformational leadership creates parallel or alternative outcomes alongside effective leadership behaviors.

### Finding

The analysis confirmed evidence that proved all hypothetical statements. The research demonstrated that the adoption of green recruitment practices generates substantial helpful outcomes on employee performance ( $\beta = 0.579$ ,  $p < .001$ ) since hiring staff matching sustainable values results in enhanced workplace performance. The data demonstrated GT as an essential factor in employee performance advancement because it produced significant positive results for employee performance with  $\beta = 0.459$  at a  $p < .001$  significance level.

The recruitment approach focused on sustainability demonstrates strong direct effects on green training programs ( $\beta = 0.652$ ,  $p < .001$ ) since organizations employing this method show better success in employee green training activities. Statistical analysis indicates that green training acts as a mediator in the green recruitment to employee performance relationship, producing an estimated total indirect effect of 0.1752 within a 95% confidence interval bracketing from (0.0949 to 0.2673).

The research found that transformational leadership (TL) has a substantial effect on linking green recruitment practices to employee performance, including when leadership competency reaches levels of 3.25 ( $\beta = 0.2324$  at TL = 3.25,  $p < .001$ ). Higher degrees of transformational leadership diminish the overall effect of green recruitment methods on employee performance. The integrated model of Human resource management systems with leadership shows effective performance results regarding employee sustainability goals in organizations.

### Discussion

This study confirms that green recruitment and green training significantly contribute to improved employee performance. Employee recruitment through environmentally conscious processes is more likely to align with organizational sustainability goals. When supported with green training, their performance improves due to increased knowledge, motivation, and eco-friendly behavior.

Green training not only enhances performance directly but also moderates the effect of green recruitment by converting the value of sustainability into usable skills. This aligns with previous research (e.g., Jabbour et al., 2024; Pinzone et al., 2019) that emphasizes the importance of environmental knowledge in performance enhancement.

Moreover, transformational leadership significantly enhances the effect of green Human resource management practices. At low to moderate levels, such leadership motivates employees, encourages green behavior, and boosts job satisfaction. However, at extremely high levels, the distinct impact of green recruitment is reduced, possibly because the leadership itself has become the dominant influence.

These results are from previous research (Renwick et al., 2013; Dumont et al., 2017; Mishra & Khan, 2024), reinforcing the idea that the integration of green Human resource management and transformational leadership is essential for sustainability-focused performance. The study contributes to the literature by confirming these dynamics specifically within the public education sector of Gilgit-Baltistan, offering practical implications for HR professionals aiming to improve environmental performance through strategic HRM practices.

## **Conclusion**

The research investigates the interactive impact of green recruitment and green training on employee performance in Gilgit Baltistan's government education sector, Pakistan, Pakistan, with transformational leadership acting as a moderator variable. Green recruitment and green training both substantially improve employee performance, according to the findings. More specifically, transformational leadership moderates this relationship at low and moderate levels, suggesting that when organizations want to develop and maintain a sustainable organizational culture, their leaders play a pivotal role.

Employers who practice green recruitment are likely to attract people who share sustainability values. When coupled with green training, these practices are essential for developing the eco-friendly competencies of employees. It is critical for the long run of performance and competitive advantage: then the sustainability objectives of the organization and the capabilities of the staff at stake go hand in hand. Transformational leaders who emphasize green initiatives are found to raise employee engagement, accountability, and performance significantly, the study also points out.

## **Limitations**

Despite its important contributions, this study has some limitations. One limitation of the study is the geographical scope, which is limited to the government education sector in Gilgit-Baltistan, hence, it may lack generalizability to other regions or industries. Furthermore, a cross-sectional survey design limits clarity concerning causal relationships or long-term effects. Self-reporting. When the researchers relied on responses from participants to input their data, this led to response bias, where participants may have answered in a more socially accepted manner rather than reporting their behavior and attitudes accurately. Furthermore, this study did not consider other green HR practices, like green performance appraisal or rewards, which may also impact performance and should be included in future studies.

## **Recommendations for Future Research**

These limitations provide opportunities for future research to respond and broaden the literature on green HRM practices. This suggestion highlights that longitudinal studies need to explore the impact of green training and recruitment on employee performance in the long term. Comparative

studies between sectors, such as healthcare, manufacturing, or the private sector, would improve the degree to which the findings can be generalized. Also, it is recommended to investigate other mediating and moderating variables, including, for example, green organizational culture, employee commitment, or psychological empowerment, to have a broader view of the mechanisms involved. In addition, qualitative methods, e.g., interviews or focus groups, can be employed in order to gain insight into the perceptions and experiences of employees on green HRM practices and leadership.

## Reference

Ahmed, Z., Khan, M., & Lee, S. (2025). Impact of green training on employee performance in sustainable organizations. *Journal of Sustainable HRM*, 22(4), 158-174.

Guerci, M., Longo, M., & Cortese, C. (2023). Green HRM and its influence on employee engagement and performance. *International Journal of Human Resource Management*, 35(2), 233-245.

Jones, A., & Patel, N. (2023). Sustainability practices in HRM: A review of green recruitment and training. *Business and Environment Journal*, 19(1), 45-60.

Khan, F., Ali, Z., & Wang, L. (2023). Green HRM: A pathway to sustainable organizational performance. *Sustainable Business Review*, 17(3), 97-112.

Lee, H., Choi, Y., & Park, S. (2023). Transformational leadership and its impact on green HRM effectiveness. *Leadership and Sustainability*, 10(3), 77-90.

Mishra, R., & Khan, H. (2024). Moderating effects of transformational leadership in green HRM practices. *Journal of Leadership Studies*, 27(2), 59-72.

Smith, D., & Zhang, Y. (2024). The role of green recruitment in organizational sustainability. *Journal of Environmental Management and HRM*, 29(5), 121-135.

Oetken, O. (2018). Associations of the five-factor personality traits with environmental citizenship behavior of youth in a Nigerian university community. *Management of Environmental Quality: An International Journal*, 29(6), 1135-1155.

Khan, N. U., Wu, W., Saufi, R. B. A., Sabri, N. A. A., & Shah, A. (2021). ("Sci-Hub | Antecedents of Sustainable Performance in Manufacturing ...") "Antecedents of sustainable performance in manufacturing organizations: a structural equation modeling approach." ("Understanding the Impact of Green Human Resource Management Practices ...") *Sustainability*, 13(2), 897.

Amrutha, V. N., & Geetha, S. N. (2020). A systematic review on green human resource management: Implications for social sustainability. *Journal* <https://doi.org/10.1016/j.jclepro.2019.119131>

Azorin, M. J. F., López-Gamero, M. D., Tarí, J. J., Pereira-Moliner, J., & Pertusa-Ortega, E. M. (2021). *Environmental Management, Human Resource Management and Green Human Resource*

Management: A Literature Review. *Administrative Sciences*, 11(2), 48. <https://doi.org/10.3390/admsci11020048>

Chaudhary, R. (2018). Can green human resource management attract young talent? An empirical analysis. *Evidence-Based HRM: A Global Forum for Empirical Scholarship*, 6(3), 305–319. <https://doi.org/10.1108/EBHRM-11-2017-0058>

Green, J. P., Yu, S., Martín-Sánchez, F., Pelegrin, P., Lopez-Castejon, G., Lawrence, C. B., & Brough, D. (2018). Chloride regulates dynamic NLRP3-dependent ASC oligomerization and inflammasome priming. *Proceedings of the National Academy of Sciences*, 115(40). <https://doi.org/10.1073/pnas.1812744115>

Leidner, S., Baden, D., & Ashleigh, M. J. (2019). Green (environmental) HRM: Aligning ideals with right practices. *Personnel Review*, 48(5), 1169–1185. <https://doi.org/10.1108/PR-12-2017-0382>

Mwita, K. (2019). Conceptual Review of Green Human Resource Management Practices. *East African Journal of Social and Applied Sciences*, 1(2), 13-20.

Roscoe, S., Subramanian, N., Charbel, J. C. J., & Chong, T. (2019). Green Human Resource Management and the Enablers of Green Organizational Culture: Enhancing A Firm's Environmental Performance for Sustainable Development. *Business Strategy and The Environment*, pp. 1–13. DOI: <https://doi.org/10.1002/bse.2277>. *Business Strategy and the Environment*, 28(5), 737–749. <https://doi.org/10.1002/bse.2277>

Pinzone, M., Guerci, M., Lettieri, E., & Huisinigh, D. (2019). Effects of 'green' training on pro-environmental behaviors and job satisfaction: Evidence from the Italian healthcare sector. *Journal of Cleaner Production*, 226, 221–232. <https://doi.org/10.1016/j.jclepro.2019.04.048>

. Zaid, A. A., Talib Bon, T., & A.M. Jaaron, A. (2018). ("Analisis Pengungkapan Sustainable Development Goals dan Tata Kelola ...") "Green Human Resource Management Bundle Practices and Manufacturing Organizations for Performance Optimization: A Conceptual Model." ("Green Human Resource Management Bundle Practices and Sustainable ...") *International Journal of Engineering & Technology*, 7(3.20), 87. <https://doi.org/10.14419/ijet.v7i3.20.18986>

Mousa, S.K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organizations: A conceptual framework. *Journal of Cleaner Production*, 243, 118595. <https://doi.org/10.1016/j.jclepro.2019.118595>

Muzammil, S. (2019). Understanding Post-Training Factors and Job Performance Relationship: Review of Literature for Transfer of Training Enthusiasts. *Annals of Contemporary Developments in Management & HR*, 1(3), 33–38. <https://doi.org/10.33166/ACDMHR.2019.03.004>

Xie, X., Zhu, Q., & Qi, G. (2020). How can green training promote employee career growth? *Journal of Cleaner Production*, 259, 120818. <https://doi.org/10.1016/j.jclepro.2020.120818>

Jerónimo, H. M., Henriques, P. L., Lacerda, T. C. D., Da Silva, F. P., & Vieira, P. R. (2020). Going green and sustainable: The influence of green HR practices on the organizational rationale for



sustainability. *Journal of Business Research*, 112, 413–421. <https://doi.org/10.1016/j.jbusres.2019.11.036>

Mashala, Y. L. (2018). Green Human Resource Management and Environmental Sustainability in Tanzania: A Review and Research Agenda. *International Journal of Academic Multidisciplinary Research (IJAMR)*, 2(12), 60–68.

Buil, I., Martínez, E., & Matute, J. (2019). Transformational leadership and employee performance: The role of identification, engagement and proactive personality. *International Journal of Hospitality Management*, 77, 64–75. <https://doi.org/10.1016/j.ijhm.2018.06.014>

Grošelj, M., Černe, M., Penger, S., & Grah, B. (2021). Authentic and transformational leadership and innovative work behaviour: The moderating role of psychological empowerment. *European Journal of Innovation Management*, 24(3), 677–706. <https://doi.org/10.1108/EJIM-10-2019-0294>

Juliyando, D., & Saputra, A. R. P. (2023). The Effect of Green Transformational Leadership on Service Employees in Indonesia. *International Journal of Service Management and Sustainability*, 8(1), Article 1. <https://doi.org/10.24191/ijsms.v8i1.21896>

Mysirlaki, S., & Paraskeva, F. (2020). Emotional intelligence and transformational leadership in virtual teams: Lessons from MMOGs. *Leadership & Organization Development Journal*, 41(4), 551–566. <https://doi.org/10.1108/LODJ-01-2019-0035>

Sun, X., El Askary, A., Meo, M. S., Zafar, N. U. A., & Hussain, B. (2022). Green transformational leadership and environmental performance in small and medium enterprises. *Economic Research-Ekonomska Australiana*, 35(1), 5273–5291. <https://doi.org/10.1080/1331677X.2021.2025127>

Zuraik, A., & Kelly, L. (2019). The role of CEO transformational leadership and innovation climate in exploration and exploitation. *European Journal of Innovation Management*, 22(1), 84–104. <https://doi.org/10.1108/EJIM-10-2017-0142>

Ahmad, S. (2015). Green human resource management: Policies and practices. *Cogent Business & Management*, 2(1), 1030817. <https://doi.org/10.1080/23311975.2015.1030817>

: Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. *Journal of Organizational Behavior*, 34(2), 176-194. <https://doi.org/10.1002/job.1820>

: Sonntag, S., & Frese, M. (2002). Performance concepts and performance theory. In S. Sonnentag (Ed.), *Psychological Management of Individual Performance* (pp. 3-25). Wiley

A. A. Jabbar, M. H., & Abid, M. (2015). A study of green HR practices and their impact on environmental performance: A review. *Management Research Report*, 3(8), 142-154.

Al-Sabi, S. M., Al-Ababneh, M. M., Al Qssem, A. H., Afaneh, J. A. A., & Elshaer, I. A. (2024). Green human resource management practices and environmental performance: the mediating role of job satisfaction and pro-environmental behavior. *Cogent Business & Management*, 11(1), 2328316.

Nasir, A., Ullah, M., & Tariq, H. (2024). *Green recruitment and training: Practical frameworks for environmentally responsible public institutions*. South Asian Journal of Human Resource Management, 11(1), 77-91.

Chen, Y., & Wu, L. (2025). *Transformational leadership and sustainable performance: The mediating role of green motivation*. Journal of Sustainable HRM, 12(1), 45-59.

Zhang, Y., Wang, Z., & Li, H. (2023). *Micro-level green HRM and employee outcomes: A systematic literature review and future research agenda*. Journal of Cleaner Production, 389, 136178.

Farooq, S., Malik, M., & Ahmed, T. (2023). *Bridging green HRM practices and employee outcomes: The role of engagement and organizational citizenship behavior*. Journal of Environmental Management, 338, 117634

Jabeen, F., & Hussain, M. (2025). *Leadership in the green era: Exploring transformational leadership in environmentally sustainable workplaces*. Leadership and Organization Development Journal, 46(2), 223–241.