

THE IMPACT OF GREEN TRAINING & DEVELOPMENT, GREEN RECRUITMENT & SELECTION ON EMPLOYEE CREATIVITY IN TELECOM SECTOR IN PAKISTAN: THE MODERATING ROLES OF DEMOCRATIC LEADERSHIP AND TECHNOLOGY

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ABSTRACT

The study examines the relationships between green human resource (HR) practices, notably green training and development, and green recruiting and selection, and employee creativity in Pakistan's fast-paced telecommunications sector. Additionally, it examines how technical advancements and democratic leadership influence these relationships. Data was gathered from permanent workers in the HR, Quality Assurance, and IT departments in Islamabad using a stratified random sampling technique. A comprehensive demographic profile was created, and in order to offer analytical richness, a range of statistical methods were utilized, including descriptive statistics, correlation analysis, reliability metrics, and multiple regression. The findings showed strong positive correlations between green HR practices and employee innovation, with a high level of internal consistency across variables.

Furthermore, the research revealed that technology plays a crucial moderating role in enhancing the capacity of green HR policies to foster innovation. Democratic leadership was also discovered to have a significant impact on the creation of a creative atmosphere. Integrating environmentally friendly HR procedures with enabling technology and supportive leadership can significantly enhance organizational innovation, according to these findings. The study concludes that green HR practices, as strategic practices, encourage employee innovation in addition to fostering environmental sustainability. It suggests that company leaders integrate green HR initiatives into their general strategic plans in order to foster innovative and enduring business cultures.

INTRODUCTION

The telecom industry in Pakistan is growing at an incredible rate! The rivalry is as intense as a UFC bout, technological needs are rising, and networks are growing quickly. An aggressive environment like this necessitates more than everything else: a formidable crew of telecom ninjas who are tech-savvy and prepared to take over this constantly evolving

industry. The time has come to advance, change, and unleash the future telecommunications leaders. (Saini and Shukla, 2016). Activities covered by Green HRM Initiatives include integrating environmental concerns into HR procedures like recruiting, training, and development; promoting environmental awareness; implementing eco-friendly

policies; fostering sustainable practices; reducing waste; and improving energy efficiency in the workplace. It includes policies and strategies for lowering a company's environmental footprint and fostering a socially responsible and sustainable workplace. The novel management strategy known as GHRM uses a "green" concept in the field of HRM. The term GHRM refers to the alignment of the HRM policy and practice with the corporate environmental plan (Liu and Xie 2013). GHRM methods are essential for a productive workforce and a strong company. They improve the company's reputation, draw in top talent, cultivate customer loyalty, and promote employee well-being, all of which increase employee satisfaction and productivity (Gao and Zhang 2015). Firms with green HRM practices attract environmentally conscious talent. Organizations that place a high priority on sustainability have discovered that these procedures are essential for bringing in the best personnel and incorporating green-minded principles into their operations (Jabbour, Jugend et al. 2015; Chen and Chang 2013). By utilizing the environmental knowledge and skills of their workforce, organizations can foster a culture of sustainability and promote "green innovation." This "green human capital" is becoming increasingly recognized as a crucial component of ethical corporate citizenship, particularly in developing nations (Ahmad 2015). The four main elements of green human resource management (GHRM) are selecting environmentally conscious workers (green staffing), providing sustainability training (green training), evaluating performance using an environmental perspective (green performance appraisal), and rewarding environmentally friendly behavior (green reward & recognition), (DuBois and Dubois 2012).

Finding and acquiring the best candidates for a job vacancy inside a firm is the goal of the fundamental HRM practices of recruitment and selection. Using methods like job advertisements and postings, recruitment focuses on luring the best applicants. Following this is the selection procedure, which involves evaluating candidates and choosing the finest fit for each position. In this way, these procedures may work together to ensure that companies are able to successfully attract, evaluate,

and choose candidates who meet the qualifications of the roles they are trying to fill. Green recruitment and selection (GRS) has been regarded as the most essential element of GHRM (Ahmad 2015), and this is because the applicant's awareness of the green revolution is the most important aspect of green recruitment and selection. It has to do with personality traits, and the profile of a new job seeker who is prepared to enter the market is shifting, as they are now not only young, lively, enthusiastic, eager to take advantage of opportunities, confident, and friendly, but also have a high level of understanding of current events in politics, society, and the environment (Tang, Chen et al. 2018). The wide reach to a large pool of possible candidates at a cheap cost is one of the benefits of e-recruiting (Stone and Lukaszewski, 2005). With e-recruiting, you can contact candidates through their mobile devices from anywhere. Green training and development methods are a sustainable and cost-effective approach to increasing green value (Teixeira et al., 2016).

An important component of green human resource management is green training and development procedures. These methods include integrating environmental sustainability goals and objectives into the organization's general agenda and creating employee awareness and training programs (EFEJUKU 2022). Environmental sustainability has gained the attention of many management scholars, especially in the field of human resource management, due to its strategic relevance in the development of sustainable organizations that will help in the achievement of sustainable development goals (Guerci et al. 2016). "Developing green abilities" is a component of the larger category of "green training and development." It refers to how a company invests its resources in fully developing its workforce's behavioral attitudes, traits, knowledge, and skills in order to effectively manage the environment, promote sustainability, and prevent degradation (Amankwah-Amoah, 2018). Activities and programs that seek to improve the employee's skills, knowledge, and abilities are included in training and development. It includes official training sessions, seminars, mentorship, and other initiatives designed to improve both individual and organizational performance. The primary goals of

training and development initiatives are to provide employees with the abilities they need to succeed in their current jobs and to prepare them for the challenges of the future. These programs guarantee that all staff members are on the same page and prepared for any future changes by introducing them to new technologies. (Anderson et al., 2014.). Democratic Leadership, often referred to as participative leadership, involves leaders who foster teamwork, participation, and team members' involvement in decision-making. In a participative leadership style, team members' perspectives are valued, and a sense of shared accountability is established.

White and Lippitt's (1962) conception of democratic leadership highlights the leader's promotion of group involvement, discussion, and decision-making. Participation is the foundation of democratic leadership. The defining features of the autocratic and democratic systems have been control and participation, respectively, for many decades. Involvement is the very root of democratic leadership; it is not one of its constituents (Luthar, 1996). The distribution of responsibility is the first function of democratic leadership. The democratic leader, McConnell, C. R. (2004) explained, "seeks to evoke maximum involvement and the participation of every member in the group activities and in the determination of objectives." The leader "seeks to spread responsibility rather than to concentrate it". Democratic leadership is associated with increased follower productivity, contentment, participation, and commitment (Holmes, Schnurr et al. 2007). Under democratic leadership, member satisfaction and leadership nominations increase (Bass & Stogdill, 1990). Democratic leadership may entail extensive discussions and debates, but involvement has more advantages than disadvantages. When democratic leaders involve everyone in decision-making, they draw from a larger pool of ideas and information, which ultimately results in better outcomes and increased productivity (Holmes, Schnurr, et al. 2007, Denhardt & Denhardt, 2015). For the past ten years, the global telecom sector has been on fire! Because people have become addicted to their mobile phones and amazing technology.

The case of Pakistan is similar, since the collapse of trade barriers, government aid, and increased

competition all contributed significantly to the nation's telecom expansion. (The future of Pakistan's mobile phone industry: bright or bleak? 2014). Technology encompasses the entire spectrum of tools, equipment, and electronic solutions utilized in business operations, including software programs, communication networks, and cutting-edge systems. 1997 The integration of environmentally friendly practices into HR activities, known as "green HRM initiatives," has become more popular as businesses pursue corporate social responsibility. It is essential in defining how Human Resource Management (HRM) is performed nowadays (Venkatesh, Morris, et al., 2003). At the same time, technology, which encompasses a wide range of digital tools and solutions, has become a crucial facilitator in today's workplaces (Renwick, et al., 2013). The intricate tango that must be performed between human capital development and corporate goals is highlighted by two essential HRM processes: recruitment and selection, and training and development. It is really imperative for telecom firms wishing to have a competitive advantage to comprehend the synergies and dynamics at play, as the incidence of innovative technologies is altering these processes, from AI-driven tools changing recruitment strategies to e-learning platforms improving training methods (Marler and Boudreau 2017, Chen, Liu, et al., 2021). "The development of new ideas about green products, green services, green processes, or green practices that are judged to be original, novel, and useful" is the definition of "green creativity" (Chen & Chang, 2013). (Tang, Chen, et al., 2018) Numerous individuals believe that creativity is necessary for innovation and resolving organizational challenges. If employees want to see a change in the company's environmental management, they must come up with creative solutions related to environmental protection and management, put them into practice, carry them out, and make them a reality.

To guarantee sustainable environmental development, firms depend heavily on the environmentally responsible behavior of their personnel (Tang, Chen et al., 2018). The term "employee creativity" describes a worker's capacity to come up with new and useful ideas, solutions, or products that promote innovation inside the

company. The seeds of creativity are planted by innovation. Without a creative spark, there can be no room for creativity to thrive.

Organizations must foster creative individuals in order for an environment of innovation to thrive (Oldham & Cummings, 1996). However, Anderson, Potočnik, et al. (2014) suggest an integrative perspective of them, stating that "innovation and creativity go hand in hand in the workplace. Creativity sparks new ideas, and innovation brings them to life by transforming them into better procedures, methods, or end products. Consider them as complementary aspects of one another: "innovation realizes the aspirations that creativity stokes." Creative thinking thrives in challenging or uncertain circumstances. Although these issues may initially make you feel worried and nervous, coming up with innovative solutions can make you feel better. When creative approaches are used to address conflicting data or overcome difficulties, the workplace can become a more enjoyable place by fostering a sense of joy and success. Using fear as a motivator for an exciting adventure is comparable. According to the logic presented and the preliminary research of (Amabile, Barsade, et al., 2005), a person's creative output at work can directly induce pleasant feelings. To put it another way, the person who came up with novel and helpful ideas for goods, services, or processes that address issues in the workplace may experience a sense of satisfaction. Creativity can elicit positive emotions, which in turn

can lead to even more creative thought. Tavares (2018) describes it as a fulfilling cycle. The capacity to generate novel thoughts and apply knowledge in innovative ways are highly valued talents in today's workforce. Since these abilities foster innovation and growth, they are vital for companies seeking a competitive edge. In conclusion, creative workers are the engine behind commercial growth.

Employees are valued for their ability to identify novel solutions to problems and for their creative application of prior knowledge. Organizations are thought to be able to gain a competitive edge via creative behavior in the workplace (Agars, Kaufman et al. 2008), since it allows them to proactively create new skills (Zhou & Hoever, 2014) in addition to responding to unanticipated challenges. As Forgas & George (2001) stated, "Any feelings we experience at work have a significant impact on our thoughts, choices, and behaviors," it is crucial to investigate affect as a potential outcome of employees' creative work behavior. Increasingly, research is showing that positive emotions have a big impact on crucial organizational components, leading to better results" (Barsade & Gibson, 2007). Our emotional states at work influence both our physical well-being and our job performance. It seems that when one is in a good mood, they perceive events and circumstances inside the organization more favorably. In other words, happy employees have a better perspective, which benefits both them and the business (Weiss & Cropanzano, 1996).

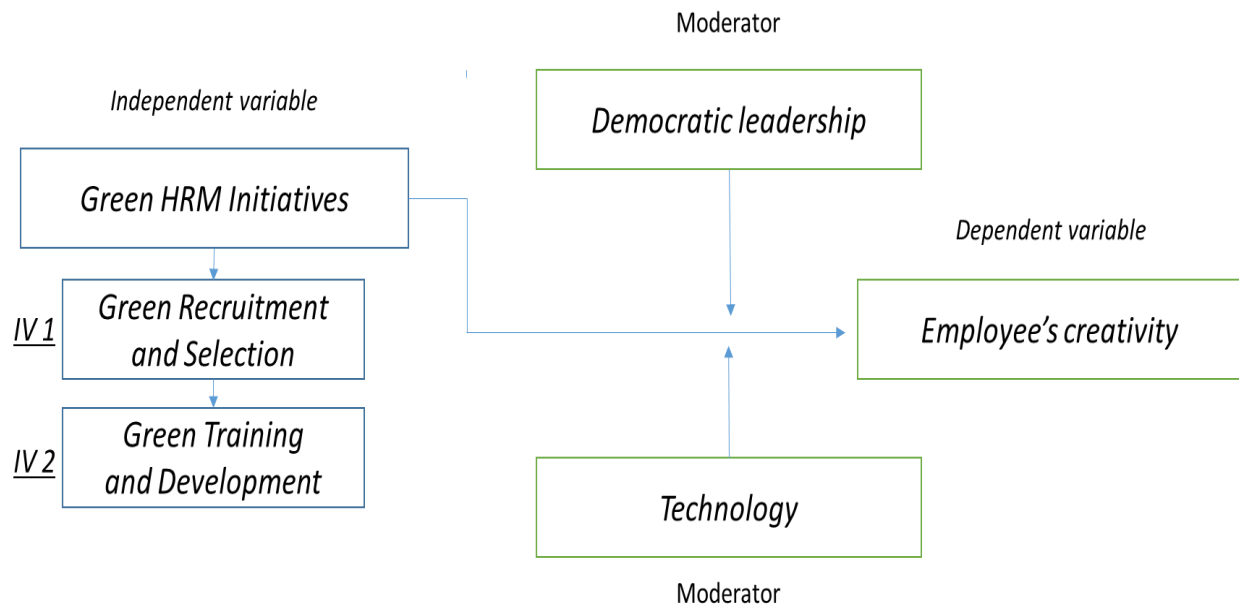


Figure 1: Research Model

LITERATURE REVIEW:

Employee innovation and training & development:

When an employee systematically tries to improve their performance in one or more tasks, this is referred to as training (Ahmad & Bakar, 2003). There must be an interface between the company and its workforce (McConnell, 2004), and the employees must participate in training programs. The prioritization of green principles in businesses not only fosters a sustainable culture but also has a beneficial correlation with higher employee engagement and the growth of a vibrant and innovative workplace (Renwick, Redman, et al., 2013).

According to empirical studies, (Amabile 1988, Anderson, Potočnik, et al., 2014) emphasize the value of skill development and knowledge acquisition in fostering employees' creative thinking. Amabile's study demonstrates the value of training in improving people's creativity, while Anderson et al.'s work demonstrates how targeted development programs may help people become better at creative problem solving.

H1: Training & Development has a significant positive impact on employee creativity

Recruitment & Selection and employee creativity:

According to this study, the implementation of successful environmental sustainability methods in firms is associated with a subsequent increase in creative behaviors among employees (Paillé, Chen, et al., 2014). Research by (Collins & Smith, 2006) emphasizes the importance of strategic hiring in attracting skilled individuals with diverse talents and creative potential, particularly in hiring creative talents to enhance organizational creativity. Furthermore, (Gatewood, Field, et al., 2015) research supports the importance of having a successful selection process for identifying people who are naturally inclined to think creatively.

H2: Recruitment & Selection has a significant positive impact on employee creativity

Technology moderates between Training & Development and employee creativity:

The process of enhancing an employee's performance and changing their conduct is known as training and development (Naris & Ukpere, 2009). Training and development assists organizations in adapting to new technologies by raising the productivity of their workforce (Kennedy, 2009). The crucial role of

technology in influencing HR practices, with a particular emphasis on its impact on the efficiency of sustainability programs, is highlighted by the (Rasmussen & Ulrich ,2015) research. The revolutionary effect of technology-driven developments on improving training methods, interdependently shape and affect the effectiveness of T&D programs. (Lee, Xiao, et al., 2021) the technology plays a multifaceted role particularly in developing innovative thinking of organizational training. The hypothesis makes the assumption that technology, as a dynamic component of T&D, influences how effectively training initiatives foster employee creativity. In order for firms to optimize the efficacy of their T&D programs in fostering innovation among employees, it is essential that they comprehend the complicated dynamics of this interaction in overcoming the difficulties of the modern digital environment.

H3: Technology moderates the relationship between Training & Development and employee creativity

Technology moderates between Recruitment & Selection and employee creativity:

The function of technology in fostering creativity in businesses is examined in the study (Strohmeier & Piazza, 2013). The effectiveness of recruiting and selection methods, according to (Cropanzano, Keplinger, et al., 2023), is largely contingent upon how well technology improves the recruiting process. (Wang, Huang et al., 2022) The most recent studies investigate the particular function that technology plays in fostering creative thought throughout the recruiting and selection process inside organizations.

H4: Technology moderates the relationship between Recruitment & Selection and employee creativity

Democratic leadership moderates between Training & Development and employee creativity:

According to (Kadiresan, Selamat, et al., 2015), development is the process of training and preparing employees for their future roles and difficulties. Human resource managers in the twenty-first century will primarily be concerned with training and development (Stavrou, Brewster, et al., 2004). According to (Lenart-Gansiniec, Sypniewska, et al., 2023), the use of Green HRM methods and participatory leadership approaches might increase

the success of green projects. As discovered by (Arici & Uysal, 2022), democratic leadership is uniquely positioned to encourage creative thought in corporate green initiatives. The term "green training" (GT) refers to a set of procedures that aims to educate workers on environmental concerns and equip them with the skills necessary to protect the environment, both of which are essential for achieving successful environmental goals (Jose, Chiappetta, Jabbour, 2011). Training can help employees increase their environmental understanding, awareness, and competence (Fernández, Junquera, et al., 2003).

H5: Democratic leadership moderates the relationship between Training & Development and employee creativity

Democratic leadership moderates between Recruitment & Selection and employee creativity:

The fundamental element of GRS is green awareness of the candidates, which encompasses personality qualities like conscientiousness, agreeableness, and environmental consciousness that support the attainment of organizational environmental goals. According to Del Brío, Fernandez, et al. (2007), employees who are environmentally important are continually improving their environmental understanding throughout their career, which in turn improves the environmental performance of their companies. Prior research (Renwick, Redman, et al., 2013) has established green recruitment and selection (GRS) as a key component of green human resource management (GHRM) techniques. Companies may target and choose workers who are devoted to environmental concerns by applying green standards in the hiring and assessment process. For instance, hiring firms may highlight environmental concerns in their job postings and staff requirements. Questions about one's own knowledge, beliefs, and opinions about the environment can be asked (Renwick, Redman, et al., 2013).

Green awareness is the central component of GRS, and it includes personality traits like green consciousness, conscientiousness, and agreeableness that help businesses achieve their environmental goals. It has been discovered that employees with environmental values actively improve their

environmental knowledge throughout their work, which improves the environmental performance of their companies (Del Brío, Fernandez, et al., 2007). Businesses may use a variety of methods to choose and recruit people who are environmentally conscious in order to guarantee that all employees have a good attitude toward environmental concerns (Renwick, Redman, et al., 2013). Democratic leadership is linked to higher follower productivity, happiness, engagement, and loyalty (Van Engen, 2012). Democratic leadership leads to an increase in member satisfaction and leadership nominations (Bass & Stogdill, 1990). While prolonged policy discussions and time-consuming tasks are two significant drawbacks of democratic leadership, participation is crucial to improving leadership productivity (Bass & Stogdill, 1990).

H6: Democratic leadership moderates the relationship between Recruitment & Selection and employee creativity

Based on literature review, proposed hypothesis are:

H1 Training & Development has a significant positive impact on employee creativity

H2 Recruitment & Selection has a significant positive impact on employee creativity

H3 Technology moderates the relationship between Training & Development and employee creativity

H4 Technology moderates the relationship between Recruitment & Selection and employee creativity

H5 Democratic leadership moderates the relationship between Training & Development and employee creativity

H6 Democratic leadership moderates the relationship between Recruitment & Selection and employee creativity

Research Methodology:

In Pakistan's telecom industry, this study employs a positivist approach to explore how Green Human Resource Management (GHRM) practices, namely Training & Development and Recruitment & Selection, affect employee innovation. A quantitative, deductive approach was employed, allowing for the testing of theoretical hypotheses

using well-defined statistical techniques. The cross-sectional survey design, which is not experimental, enabled us to gather data effectively from a big sample at one time without changing any variables. Utilizing validated and standardized tools, we assessed technology, democratic leadership, employee creativity, and GHRM methods. The survey was pilot-tested for clarity and contextual relevance.

The target demographic included full-time workers in Islamabad's telecom industry from the HR, IT, and Quality Assurance divisions, covering all levels of management—lower, middle, and top. Proportional representation across organizational hierarchies was ensured by a stratified random sampling approach, backed by convenience sampling to maximize reach. Using Slovin's formula with a 5% margin of error, the sample size was calculated to be 286. Google Forms were used to conduct an online survey, which allowed for a wide distribution, participant anonymity, and cost-effectiveness. The unit of analysis was specific telecom workers. Data analysis, descriptive statistics, and a summary of the sample profile and variable distribution were all included. The relationships between GHRM practices and employee creativity were examined using correlation and regression analyses, while the impact of democratic leadership and technology was studied using moderation analysis.

Because it aligns with the study objective of measuring objective relationships and because it adheres to APA ethical guidelines by ensuring informed consent, data confidentiality, and responsible data management, the methodology is justified. This guarantees validity, reliability, and ethical compliance.

Results and Data Analysis:

Introduction

The full results of the quantitative examination of the survey data are presented in this chapter. Statistical methods were used to investigate the internal consistency, central tendencies, distribution patterns, inter-variable correlations, and causal connections. The link between Green HRM methods, organizational factors that support them, and employee creativity is empirically validated by the analysis.

Demographic Profile of Respondents

Understanding the demographic characteristics of respondents is essential to contextualize the findings.

Table 1: Demographic Characteristics of Respondents

Characteristic	Category	Frequency	Percentage
Gender	Male	109	41.9%
	Female	151	58.1%
Age	20-30 years	82	31.5%
	31-40 years	164	63.1%
	41-50 years	13	5.0%
	Above 50 years	1	0.4%
Job Position	Lower-level Management	13	5.0%
	Middle Management	144	55.4%
	Top Management	103	39.6%
Salary Bracket (PKR)	41,000-60,000	93	35.8%
	81,000-100,000	88	33.8%
	Above 100,000	21	8.1%

The majority of respondents were women (58.1%) between the ages of 31 and 40 (63.1%). The majority of the participants were in middle or upper management positions, indicating a knowledgeable and skilled sample group.



Reliability Analysis

Cronbach’s alpha was calculated to measure the internal consistency of the research constructs.

Table 2: Reliability Coefficients

Construct	Cronbach’s Alpha
Green Recruitment & Selection	0.702
Green Training & Development	0.760
Employee Creativity	0.733
Democratic Leadership	0.721
Technology	0.793
Overall Reliability	0.900

All variables exhibited satisfactory reliability ($\alpha > 0.7$), indicating strong internal coherence among the items.

Descriptive Statistics

Descriptive statistics summarize the central tendencies and dispersion for each variable.

Table 3: Descriptive Statistics

Variable	Mean (M)	Std. Deviation (SD)	Variance	Min	Max
Green Recruitment & Selection	17.53	4.72	22.28	9	25
Green Training & Development	17.68	4.59	21.06	10	25

Employee Creativity	17.61	4.91	24.11	8	25
Democratic Leadership	11.03	6.92	47.89	5	25
Technology	10.98	7.31	53.42	4	25

The average values suggest moderate to high perceptions across constructs, with a particular emphasis on recruiting, training, and creativity. The

variability was moderate, which suggests that participants gave consistent answers.

Skewness and Kurtosis

Skewness and kurtosis were used to assess normality of the data.

Table 4: Skewness and Kurtosis

Variable	Skewness	Kurtosis
Green Recruitment & Selection	-0.178	-1.417
Green Training & Development	-0.152	-1.459
Employee Creativity	-0.106	-1.480
Democratic Leadership	-0.166	-1.423
Technology	-0.160	-1.470

All values fall within ±2, indicating an approximately normal distribution suitable for parametric tests.

Correlation Analysis

Pearson’s correlation was conducted to explore relationships between variables.

Table 5: Pearson Correlation Matrix

Variables	GRS	TD	EC	DL	Tech
Green Recruitment (GRS)	1.000	0.760**	0.633**	0.621**	0.599**
Training & Development (TD)		1.000	0.643**	0.627**	0.582**
Employee Creativity (EC)			1.000	0.649**	0.867**
Democratic Leadership (DL)				1.000	0.601**
Technology (Tech)					1.000

Note: **p < .01

All relationships were statistically significant at the 0.01 level. Particularly strong correlations were seen between Technology and Employee Creativity (r = 0.867) and between Recruitment and Training (r = 0.760), indicating a consistent interaction between green HRM components and creative results.

Hypothesis Testing: Multiple Regression

To evaluate the influence of GRS and TD on Employee Creativity (EC), multiple regression analysis was conducted.

Table 6: Multiple Regression Analysis

PREDICTOR	B	T	SIG. (P)
GREEN RECRUITMENT & SELECTION	0.396	5.878	< .001
GREEN TRAINING & DEVELOPMENT	0.326	4.842	< .001
MODEL R ²	0.573		

With an R2 value of 0.573, the model was considered significant, indicating that GRS and TD account for 57.3% of the variation in employee innovation. Both variables had a positive and statistically significant impact on creativity, lending

credence to Hypotheses 1 and 2. GRS had a somewhat greater impact than TD.

Summary of Findings

According to the study, Green Recruitment and Training are essential for fostering employee innovation. The impact of GRS and TD in influencing creative conduct is highlighted by their strong correlations and predictive power. Leadership had a moderate impact on all major HRM practices, while technology became a crucial facilitator and was firmly linked to creativity. The data distribution satisfied parametric assumptions, and the strong internal reliability guaranteed the robustness of the findings.

Discussion:

The data analysis yields useful information about the connections between different elements in the telecom industry in Pakistan, as seen through the lens of sustainable HR strategies and employee creativity. The main results, their ramifications, and their consistency with the current body of knowledge were all explored in this discussion section.

The study showed that green recruiting and selection (GRS) and green training and development (TD) both have a substantial and beneficial effect on employee creativity (EC). This suggests that a more innovative workforce is likely to result from organizations that place a high priority on environmentally friendly HR practices in their hiring and training procedures. These results align with earlier research by Tan and Nasurdin (2011), Lau and Ngo (2004), Caloghirou et al. (2018), and others, which have emphasized the beneficial impact of green HR programs on employee results.

The Role of Technology and Democratic Leadership: Additionally, the findings show that democratic leadership (DLS) and technology (IT) act as moderating factors in the link between green HR practices and employee innovation. Democratic leadership was seen to enhance the favorable effects of both green recruitment and selection and green training and development on employee creativity. The fact that participatory leadership methods boost the efficacy of green HR initiatives is highlighted by this. Similarly, in this research, technology was found to moderate the link between green HR practices and employee creativity, even though the effect was not statistically significant. However, further study is warranted on the possibility that technology may

increase the effectiveness of environmentally friendly HR strategies.

Implications for Practice: These results have important implications for businesses looking to use green HR practices to boost employee creativity and, ultimately, organizational innovation. By implementing green recruiting and selection procedures and investing in green training and development initiatives, companies can develop a workforce that is both environmentally aware and more creative. Additionally, the beneficial effects of these green HR initiatives can be enhanced by promoting a democratic leadership style and making judicious use of technology.

Practical Implications

The proposed study has practical applications that could transform Pakistan's telecom industry. Combining green HRM practices, training and development, and innovative recruitment and selection methods can help foster CSR and promote an innovative culture.

By bringing telecom enterprises into compliance with global sustainability trends, as advocated by Paillé, et al., (2014), implementing green HRM practices improves their reputation for corporate social responsibility. This improves stakeholder and customer perception and promotes the organization's long-term viability. Placing a high emphasis on training and development, as noted by Imtiaz, Khan, & Shakir (2015), ensures a highly skilled workforce that is able to adapt to technological advancements. Jabbour's (2011) emphasis on organizational learning and collaboration, which emphasizes the value of continuous improvement in green HRM practices, supports this.

As the problem description implies, new strategies for hiring and selecting workers may help developing nations realize their full potential. When utilized wisely, diverse skill sets can aid organizational innovation, as Van Engen (2012) suggests.

The issue description states that, in line with Yang et al., (2010), who emphasized the importance of leadership styles in influencing creativity, the study seeks to explore the moderating effects of democratic leadership style and technology on the relationship between green HRM practices and employee innovation.

In conclusion, the study provides telecom companies with practical strategies for successfully managing environmental obligations, fostering innovation, and achieving long-term growth. By implementing these strategies, businesses can stay ahead of market developments and support Pakistan's socioeconomic progress.

Theoretical Implications

In Pakistan's telecom industry, the research exposes a number of theoretical ramifications that help us better comprehend the complex interactions between technology, leadership, employee innovation, and environmentally friendly HR methods. By examining the impact of green training, development, and hiring on creativity, the study combines theories in green human resource management and creativity. This offers ideas for future research. It advances the literature on leadership and builds upon established leadership theories by exploring the moderating role of democratic leadership in the interaction between green HR policies and employee innovation.

Additionally, by analyzing how technology mediates the link between green HR strategies and staff innovation, the study builds upon earlier theories on technology in organizational settings. This offers a novel perspective on the subject. The study advances theories about the use of green HR practices in rapidly changing industries by focusing on the Pakistani context, which adds to the corpus of information on environmental sustainability in developing nations.

The study recognizes the interdependence between green training, leadership, recruitment, and technology and helps to create a holistic approach for sustainable HR practices. An analysis of the elements influencing employee innovation in the telecommunications industry, with a focus on sustainability, helps to advance theoretical understanding of creativity theories. The study ultimately supports the theoretical underpinnings of organizational innovation by emphasizing the positive link between green HR methods and increased employee creativity, which is an essential conclusion for developing sustainable strategies as catalysts for organizational innovation. To summarize, these theoretical advances broaden scholarly knowledge and guide future research in

green HR management, leadership, technology, and organizational innovation, particularly in the context of Pakistan's telecom industry.

Limitations and Future Research

Even though this study offers helpful insights into the effects of green training and development, green recruitment and selection on employee innovation in the telecom industry in Pakistan, it's important to recognize some constraints that might direct future research projects.

First, this study mainly examines the moderating effects of democratic leadership and technology in the link between green HR policies and employee innovation. But the suggested relationships might be impacted by other contextual variables or leadership styles. In order to gain a more complete picture of the complex interactions at work, future study should look at other potential moderating factors, such as organizational culture, employee motivation, or external regulatory impacts. Second, the data for this study is collected only from a certain geographical area (Pakistan) and industry (telecom sector). Although this focus improves the study's applicability in a specific environment, it could restrict the generalizability of its conclusions to other sectors and organizational structures. Future studies may broaden the scope by including various industries and areas in order to support and build upon the existing research findings. Thirdly, the suggested model presumes a one-way impact of environmentally friendly HR policies on staff innovation. But there may be reciprocity in the relationship, with employee innovation impacting how well green HR procedures are implemented and effective. To gain a more nuanced understanding of the interaction between green HR policies and employee creativity, future studies should investigate the reciprocal nature of this relationship.

1) Restricted geographic scope: Due to the size of Pakistan and the unique character of this study, it was impossible to include the whole telecom industry nationwide. As a result, the scope of this research is limited to businesses functioning in Islamabad. Although the results may provide helpful information about the environment of Islamabad, they may not be applicable to the whole telecommunications industry in Pakistan.

2) Explanatory Power: Although the selected variables (Green HRM activities, Democratic Leadership, Technology, and Employee Creativity) are deemed pertinent, they may not completely represent every aspect that affects employee creativity. Other potential contributing factors may include organizational culture, individual traits, and job independence. The restrictions of the variables used in this study are recognized, and future research is urged to examine a wider variety.

3) Sample Bias: The study only used information from telecom workers in Islamabad. Since the results may not be a true reflection of the whole telecom workforce in Pakistan, this could result in sample bias. The sample might also be biased toward particular demographic groups, which would have a further impact on how well the findings may be applied to the wider population.

4) Data from self-reporting: Self-reported measures were the main way that employee creativity was evaluated. Although this method reveals important information about employee perceptions, it is prone to biases and drawbacks associated with self-reporting. Objective assessments of employee creativity might be included in future studies to increase the validity of the results.

5) Cross-Sectional Design: In order to collect data at a single moment in time, this study made use of a cross-sectional design. This design restricts the potential for identifying causal links between the variables. Longitudinal studies that monitor changes over time would offer a more comprehensive picture of how Green HRM programs affect employee innovation.

Furthermore, the present study is mostly based on self-reported measures, which are prone to bias and subjectivity in methodology. To triangulate findings and increase the validity of the conclusions, future research might use mixed-methods techniques like qualitative interviews or observational studies. In conclusion, despite the fact that this study makes a valuable contribution to the comprehension of green HR practices and their effects on employee innovation, researchers should address these limitations in order to advance the field. The literature on the intersection of green HR practices, leadership, technology, and employee creativity was enriched by investigating alternative moderators,

broadening the study's scope, taking bidirectional relationships into account, and using a variety of research methods.

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