

GREEN GOALS, GROUNDED GAINS: GREEN HUMAN RESOURCE PRACTICES ON TOURISM INDUSTRIES ENVIRONMENTAL PERFORMANCE: THE MODERATING EFFECT OF GREEN ORGANIZATIONAL PERFORMAMANCE

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Abstract

The tourism and hospitality industry in Pakistan has experienced rapid growth, but this expansion has intensified environmental challenges such as excessive resource consumption, waste generation, and carbon emissions. The solution to these problems involves consideration of sustainability in organizational operations and especially in the management of its human resources. This study investigate the effect of Green Human Resource Practices (GHRP) on Environmental Performance (EP) where Eco-Friendly Behavior (EFB) is used as mediator, and Green Organizational Culture (GOC) is moderator in tourism organizations, in Khyber Pakhtunkhwa. The study depend on on the Social Identity Theory (SIT) and the Ability-Motivation-Opportunity (AMO) model to create a full-fledged model to understand how sustainability efforts put in place by the HR contribute to a better environmental performance. A structured questionnaire was used to gather data on 342 employees in hotels, resorts, and guest service structures and the data were analyzed using SPSS and PROCESS Macro to examine direct, indirect, and conditional effects. Findings show that GHRP is significantly influenced EP, and EFB mediates relationship between stated link. Further, green organizational culture moderates the relationship between GHRP-EP. The results have both theoretical and practical implications as they expand the sphere of HRM and sustainability research on tourism and provide practical recommendations on how managers and policymakers can incorporate the concept of green HR strategies and cultural support into tourism business. This paper highlights that a sustainable tourism development in emerging economies is possible where the HR practices of the organization, employee behaviors, and organizational culture are cohesive towards encouraging environmental responsibility.

INTRODUCTION

The hospitality and tourism industry plays a critical role in economic development, employment generation, and cultural exchange across the globe. In Pakistan, this sector has witnessed rapid expansion due to increased domestic tourism, foreign investment, and urbanization. The growth of the hotel and resort industry together with guest service establishments creates a major economic impact which drives substantial national GDP growth according to the Pakistan Hotels Association report from (2020). The growth has resulted in environmental damage which serves as its main environmental impact. Hospitality operations require high material consumption because they need to produce energy and water while creating waste and generating carbon emissions through their regular operations which include laundry and food preparation and air conditioning use (Ahmad et al., 2022; Ahmed et al., 2021a; Pham et al., 2020). The developing country especially Pakistan faces these problems because its hotels do not have proper regulatory systems and staff members lack basic knowledge about environmental performance.

The tourism industry has changed its focus because its operations lead to environmental damage. The tourism industry progressively implements environmental practices to decrease its environmental effect and meet international sustainability requirements. Organizations use Green Human Resource Management GHRM as their operational method for implementing sustainable practices. GHRM integrates environmental goals into human resource management operations which include recruitment and training and performance evaluation and salary management (Ghani et al., 2022; Renwick et al. 2013). The implementation of GHRM practices in tourism industries creates employee results which develop environmental awareness and improve their commitment to sustainable practices. Green recruitment shows that new employees should have environmental values while green training helps employees learn how to execute environmental conservation measures (Zada et al., 2024; Kim et al. 2019).

These HR interventions are particularly impactful in hospitality environments which require their frontline staff members to manage both resource usage and guest interactions.

The literature on GHRM research shows multiple gaps despite its increasing popularity. The existing research concentrates on manufacturing industries and general business settings while ignoring the particular operational characteristics that is tourism enterprises (Ma et al., 2023; Jerónimo et al., 2020; Yusoff et al., 2020). This previous researchers conducted limited studies about GHRM practices in Khyber Pakhtunkhwa tourism industries because they have not sufficiently examined how organizational culture influences environmental performance. Green Organizational Culture (GOC) describes the collective environmental responsibility values and environmental protection practices which organizations create through their specific environmental protection practices. Organizations that establish strong green cultures benefit from improved HR outcomes because employees develop stronger dedication to sustainability and complete environmental protection objectives (Khan et al., 2022; Roscoe et al., 2019; Dumont et al., 2017). The past studies has not conducted enough studies to investigate this moderating effect available evidence which applies specifically to Pakistan's developing tourism industry.

This paper has four important contributions. First, it concentrates on an crucial issue of sustainable tourism by exploring how Green HR Practices can optimize the Environmental Performance of the tourism industry of Khyber Pakhtunkhwa. The proposed study provides a viable model that tourism organizations can use to minimize their environmental footprint and enhance efficiency in their operations by emphasizing on HR-based sustainability. Second, this research proposed the Eco-Friendly Behavior (EFB) as a mediating factor and forms of actions like resource conservation, waste management, and sustainable service delivery are the behavioural processes through which GHRM is transformed into performance results. This

behavioral prism is critical to the comprehension of how the HR practices affect environmental outcomes in a tourism environment (Manzoor et al., 2024; Afsar et al., 2020; Arici and Uysal, 2022). Third, the research also uses the Green Organizational Culture (GOC) as a moderator, which provides an insight on how organizational values and norms of shared environmental values can enhance the effect of GHRM on EFB and EP. The green culture is strongly associated with psychological safety, shared responsibility, and commitment to sustainability, and this aspect enhances the impact of HR interventions (Manzoor et al., 2023; Roscoe et al., 2019; Dumont et al., 2017). Fourth, the study is based on the Social Identity Theory (SIT), where the theoretical background is explained by the impact of how employees identification with the environmentally responsible organizations affects their behavior and commitment. SIT assists in understanding how workers of tourism institutions can implement eco-friendly behaviors in the situations when they feel that their working environment supports the principles of the sustainability movement (Ali et al., 2021). Lastly, the research will utilize the integrated GHRM scale by Kim et al. (2019) that summarizes several dimensions of green HR into a unified measurement instrument. The use of this scale is new in the Pakistani tourism industry and therefore contextually valid and applicable. The research will give empirical evidence on how sustainable tourism development in the Khyber Pakhtunkhwa region should be guided by policy training and strategic planning by testing this framework in the region. The results should provide practical implications to hotel and resort managers, human resources, and policymakers interested in integrating sustainability into the work and culture of tourism organizations.

2. Literature Review

2.1. Green HR Practices

Green Human Resource Management (GHRM) has become an important organizational approach which enables businesses to implement sustainable practices throughout their human resource operations. The system connects

environmental targets with human resource functions that include employee hiring and development and employee performance evaluation and salary management (Renwick et al., 2013). GHRM serves as an necessary tool for hospitality companies because their staff members directly determine how resources get used and how visitors experience their services. New employees need to share environmental values which green recruitment establishes while green training teaches workers how to apply environmentally sustainable methods for energy saving and waste management (Kim et al., 2019). GHRM implementation helps employees develop strong emotional ties to work and practice environmentally friendly habits which result in sustainable business performance (Ansari et al., 2021; Saeed et al., 2019). GHRM acts as a fundamental element that supports hotels in achieving their environmental objectives through its established system which connects staff performance to environmental targets.

2.2. Environmental Performance

Environmental Performance (EP) is an organization's capacity to fulfill its environmental objectives which include emission reduction, resource protection, and sustainability standard adherence (Judge & Douglas, 1998). The hospitality industry uses energy efficiency, water conservation, waste management, and eco-certification compliance as its performance indicators for environmental sustainability assessment (Elshaer et al., 2025). Hotels that implement green initiatives experience both lower operational expenses and better market reputation among consumers who prioritize environmentally friendly practices (Shin, 2026). The research establishes that organizational practices together with employee behaviors determine EP, which requires organizations to implement human resource practices that support their sustainability goals (Arsawan et al., 2025). Pakistan's tourism industries need strong environmental performance to stay competitive in the face of urbanization and tourism growth, which threatens the environment, and to achieve Sustainable Development Goals. The study uses

EP as its main outcome measure to evaluate how GHRM practices achieve sustainability results.

2.3. Green Organizational Culture

Organizational culture represents the shared values, norms, and practices that shape employee behavior and organizational identity. A green organizational culture (GOC) operates as an organizational framework which demands all employees to practice sustainable development and environmentally responsible actions in their business activities (Dumont et al., 2017). The hospitality industry uses GOC as a framework which supports the execution and effectiveness of environmentally sustainable human resource management methods (Roscoe et al., 2019). Scholars argue that when sustainability is embedded into the cultural fabric of an organization, employees will develop environmental goals because they will start to follow sustainable practices that match the organization's environmental targets (Chaudhary, 2020). The research shows that hotels which develop a strong environmental commitment achieve better results because their staff members participate more in activities that protect the environment through energy saving and waste disposal reduction and sustainable resource management (Kim et al., 2019). The relationship between human resource practices and organizational performance becomes better understood through management studies which identify organizational culture as a variable that determines how effective human resource practices will be (Naz et al., 2021). Green organizational culture functions as an active system which increases the success of GHRM policies to produce environmental results because it serves as a core organizational element.

2.4. Hypotheses development and theory

2.4.1. Green HR Practices and environmental performance

Organizations use Green Human Resource Management (GHRM) as a strategic resource which helps them achieve their environmental goals through their operational processes. The environmental objectives which tourism

organizations establish for their recruitment processes and training programs and performance appraisal systems and employee compensation systems will enable them to create an eco-friendly organizational culture which helps employees achieve sustainability objectives (Renwick et al., 2013; Kim et al., 2019). GHRM provides essential support to hospitality and tourism operations which depend on their staff members to manage their energy consumption and waste production and create positive experiences for their guests. Green recruitment ensures that organizations hire employees with environmental values while green training enables employees to learn about water conservation and waste reduction techniques. Research demonstrates that GHRM programs will improve environmental outcomes for organizations because they create employee dedication and environmental stewardship among staff members (Ansari et al., 2021; Saeed et al., 2019).

However, most of these studies have focused on manufacturing or general business sectors, with limited attention to tourism organizations in developing regions. Khyber Pakhtunkhwa needs to study how HR systems affect the ecological impact of its growing tourism sector which develops throughout the province. The research investigates GHRM implementation to measure its impact on environmental performance within Pakistan's tourism sector.

H1: Green HR Practices is positively related to tourism performance.

2.4.2. Mediating role of Eco-friendly behavior

Eco-Friendly Behavior (EFB) describes voluntary employee actions which aim to decrease environmental damage through energy conservation and waste reduction and sustainable operational practices (Afsar et al., 2020). Eco-Friendly Behavior enables tourism organizations to track their environmental results because employees need to interact with guests while operating resource-demanding services. The componential theory of creativity together with Social Identity Theory (SIT) demonstrates that employees who experience psychological safety

and organizational green mission identification will participate more in responsible environmental practices (Chen & Chang, 2013; Ali et al., 2021). The success of GHRM as a sustainability program depends on how employees behave because the system provides both structural and motivational support. Previous research shows that employees who practice eco-friendly behavior use HR practices as a bridge that leads to improved performance (Arici & Uysal, 2022; Sürücü, 2024). Existing research studies have not validated this mediating process through empirical testing in tourism environments especially in Pakistan. The study investigates Eco-Friendly behavior as a mediator of the connection between GHRM and environmental performance in tourism industries throughout Khyber Pakhtunkhwa.

H2: Eco-Friendly Behavior mediates the association between green HR practices and environmental performance.

2.4.3. Moderating role of green organizational culture

Green Organizational Culture (GOC) is a set of values, norms and practices in an organization that promotes environmental responsibility and sustainability. GOC within tourism organizations especially in the hotel and resorts sector gives the social and psychological basis that the employees internalize and do in regard to the green HR practices. When companies develop an effective green culture, their staff members do not view sustainability as an imposed set of rules but as a part of them and their daily work processes. This cultural support will make sure that HR-led programs, including green recruitment, training, and performance appraisal, are always converted into environmental friendly practices, thus improving environmental performance (Roscoe et al., 2019). In theory, organizational culture is a condition of limit that determines the effectiveness of HR practices. According to Dumont et al. (2017), culture defines the extent to which employees perceive HR interventions as authentic and in tandem with the organizational priorities. The green culture can enhance the effect of the HR practices in the tourism sector

since the frontline employees directly affect the consumption of resources and experiences of the guests as they are encouraged to practice behaviors like recycling, energy conservation, and waste minimization in a supportive green culture. On the other hand, without a robust green culture, the HR practices can end up being ineffective because employees would see them as a form of symbolism or lack of relation to the organization values. This leads to the need to address culture not as a background factor but as a strategic moderator that enhances the HR-performance association.

The GOC has been ignored in empirical research in tourism studies despite its theoretical applicability especially at the level of developing nations. The majority of the research has been conducted on the manufacturing or business in general fields, creating a knowledge gap as to how culture intersects with the HR practices of service-based industries such as tourism. This moderating effect is especially important to test in Khyber Pakhtunkhwa where the tourism industry is experiencing a fast growth, and there is an increasing environmental pressure on it. This research can advance the theory and practice of the relationship between Green HR Practices and Environmental Performance by investigating the impact of GOC on the relationship under consideration, which can help to understand how alignment with a particular culture can make the HR-led sustainability practices more effective to mitigate the ecological footprint of tourism organizations.

H3: Green organizational culture moderates the association between green HR practices and environmental performance, such that the association is stronger when green organizational culture is high.

2.5. Theoretical framework

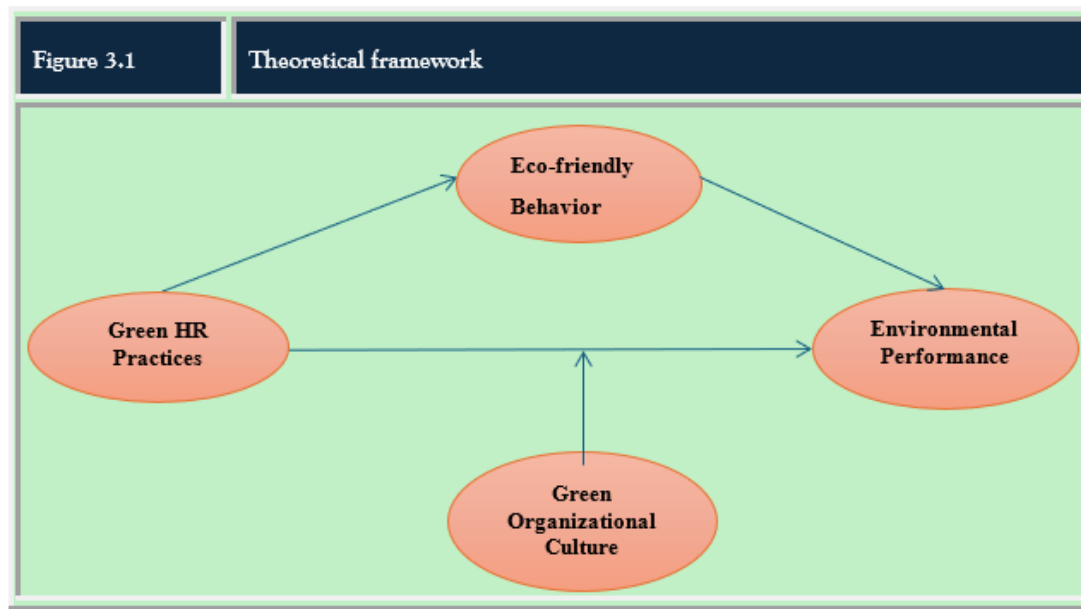
The present study is based on the combination of Social Identity Theory (SIT) and Ability-Motivation-Opportunity (AMO) concept, which allows developing an overall perspective on the influence of Green HR Practices (GHRM) on Environmental Performance (EP) and the

strengthening effect of Green Organizational Culture (GOC). These are commonly supporting theories that elaborate on the psychological processes that motivate employee behavior and the circumstances that exist in the organization that allow sustainable performance.

The Social Identity Theory (SIT) is a theory that was first developed by Tajfel and Turner (1979) that highlights the idea that individuals base their concept on the fact that they belong to social groups. By making employees feel that their organization is environmentally responsible, they will tend to become strongly associated with it, which leads to commitment and eco-friendly behavior (Ali et al., 2021). This identification is serious in the tourism sector where employees face direct contact with the guests and handle services that are resource-consuming. Workers who perceive their organization to be in union with sustainability are more willing to save resources, limit waste and encourage environmental friendly activities. SIT then explains how GHRM programs like green recruitment and training can improve on environmental performance by improving the level of psychological attachment that workers have towards the green cause of the organization.

The Ability-Motivation-Opportunity (AMO) model gives an equally valid view as it addresses the circumstances that help employees perform effectively. AMO states that the results of performance are determined by three variables, namely ability of employees (skills and knowledge), motivation (incentives and values) and opportunity (organizational support and resources). GHRM provides a way to be motivated and get opportunity because this approach introduces sustainability to HR activities, including providing training to eco-friendly practices and rewarding employees who make green efforts (Renwick et al., 2013; Kim et al., 2019). In the meantime, the ability can be promoted through Green Organizational Culture (GOC), which incorporates sustainability in

organizational values and norms and preconditions establishing the atmosphere in which employees are encouraged to follow their knowledge and skills. They also combine to offer the structural and cultural conditions that can enable employees to undertake environmentally friendly conduct, which eventually leads to the environmental performance. The combination of SIT and AMO provides a sound theoretical background of the research. SIT describes the psychological process, which connects HR practices with green behavior, as in identification of employees with environmentally friendly organizations. AMO describes the organizational process, which is the delivery of ability, motivation, and opportunity, that helps employees to transform HR practices to performance results. These insights put together bring out the individual and organizational aspects sustainability in the study. The given dual lens is especially applicable to tourism sector in Khyber Pakhtunkhwa, where the issues of environment are extremely sharp, and the organizational culture is critical in defining the behavior of the employees. To conclude, this theoretical model is that Green HR Practices have a direct impact on the Environmental Performance where Eco-Friendly Behavior is a mediator and Green Organizational Culture is a moderator. SIT offers the psychological explanation of the motivation behind the reasons why employees become eco-friendly as they associate themselves with the sustainability mission of their organization, and AMO illustrates how HR practices and organizational culture result in the conditions that these behaviors will be transformed into better environmental performance. These theories combined provide an all-encompassing basis of analyzing how organizational culture, increased HR practices, and employee behavior interact with each other to drive sustainability achievements in the tourism sector.



3. Methodology

3.1. Population, sample, and technique

The study includes employees who work at various hotels and resorts and guest service establishments all over Khyber Pakhtunkhwa's tourism sector. The researchers selected this area because it represents one of Pakistan's most rapidly expanding tourist locations which brings in both local and foreign visitors who drive up environmental damage from tourism activities. The researchers used simple random sampling to select participants from the study population because this method gave all employees the same chance to be chosen for the research. The research team selected 342 employees to participate in the study because this sample size provides enough statistical strength to test the research hypotheses. Anderson and Gerbing (1984) and Churchill and Iacobucci (2010) demonstrated that social science studies need at least 150 participants to achieve convergence and obtain accurate statistical estimates. This study shows that the sample size of 342 respondents provides strong evidence for conducting empirical research.

3.2. Respondents and Collection

This research participants were drawn from white-collar employees in hotels and tourism organizations across Khyber Pakhtunkhwa. The researchers selected white-collar employees because these workers tend to understand environmental management methods. The research team collected data through a structured questionnaire which they distributed electronically to employees through HR departments and professional networks of the organization. The management provided formal approval to share the survey link which ensured that participants could choose to take part while their personal information remained protected. Researchers received 342 valid responses from distributed questionnaires which they used to create the final dataset after they completed screening for completeness and accuracy. This response rate is consistent with prior research studies conducted in developing countries about tourism which found that organizational access and employee participation challenges still produced reliable samples as per Naz et al. (2023).

3.3. Demographic test

Table 1: Summary of Demographic profile

Category	Sub-category	Frequency	Percentage (%)
Gender	Male	211	61.7
	Female	131	38.3
Age	20-30 years	117	34.2
	31-40	142	41.5
	41-50	56	16.4
	> 50	27	7.9
Experience	< 5 years	98	28.7
	6-10	143	41.8
	11-15	67	19.6
	>15	34	9.9
Qualification	< Bachelor's degree	18	5.3
	Bachelor's degree	247	72.2
	Master's degree	61	17.8
	> Master's degree	16	4.7

The descriptive analysis gives the demographic information of the respondents in their gender, age, experience, and qualifications. Among the 342 respondents, 211 (61.7) respondents were males, and the rest 131 (38.3) were females, thus this was the gender ratio of the tourism employees in Khyber Pakhtunkhwa. Regarding age, most of the respondents i.e. 142 employees (41.5%), were in the 31-40 years range. In the meantime, the age groups of 20-30 and 41-50 years included 117 and 56 employees (34.2 and 16.4 respectively). The percentage of the employees older than 50 was only 27 (7.9), which suggests that the employees are relatively young, and they are active. As far as the work experience is concerned, the majority of the respondents i.e. 143 employees (41.8) indicated that they had 6-10 years of work experience in the tourism industry. Another 98 employees (28.7%) were less experienced (less than 5 years old), and 67 employees (19.6) were between 11-15 years. Lastly, 34 employees (9.9%) reported over 15 years

experience, which suggests a moderate number of new employees and experienced professionals. Regarding educational level, most of the respondents; that is, 247 employees (72.2) had a Bachelor of degree. Moreover, 61 employees (17.8%) were holders of the Master degree, and 16 employees (4.7) had a higher qualification (MPhil/PhD). The number of employees that do not have a Bachelor's degree was low (18, 5.3%), which indicates that the tourism employees in Khyber Pakhtunkhwa are well-educated and have the capability to understand sustainability-related practices.

3.4. Survey measurement

This study used a structured questionnaire which is established from previous studies to measure responses through a five-point Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree).

Table 2: Survery questionnaire used in this research

Types	Names	Survey questions	Adopted from
Independent Variable	Green HR Practices (GHRP)	10	Yu et al. (2020)
Dependent Variable	Environmental Performance (EP)	05	Sobiah et al. (2020)
Mediating Variable	Eco-Friendly Behavior (EFB)	06	Kim et al. (2019a)
Moderating Variable	Green Organizational Culture (GOC)	06	Wang (2019)

This study examined green HR practices, a ten items scale was used that created by Yu et al. (2020). Similarly, we used 5-items scale to evaluate environmental performance. This scale was adopted from the past study of Sobiah et al. (2020). Further, this study was used 6 items scale, to measure eco-friendly behavior developed by Kim et al. (2019a). Additionally, present study investigate green organizational culture, 6-items survey scale was used that developed by Wang, (2019).

4. Data analysis and results

The analysis tool SPSS was used to test this hypothetical model and is known most reliable program in conducting social science research. In particular, we used the PROCESS Macro of Hayes, (2018) to analyze the mediation and moderation effects in our hypothesis. It is believed that the PROCESS Macro is a powerful analytical instrument since it enables scholars to test direct, indirect, and conditional impacts at the same time and employs bootstrapping techniques to give a more precise confidence interval than the conventional ones (Hayes, 2018). This is especially reliable to our research

which tries to identify the mediating effect of eco-friendly behavior (EFB) and the moderating effect of green organizational culture (GOC) between Green HR Practices (GHRP) and environmental performance (EP). The analysis was taken place in two steps. The direct impact of Green HR Practices on environmental performance, (simple regression analysis) and mediating influence of eco-friendly behavior were tested using Model 4. This analysis is covered by the PROCESS Macro which gives bootstrapped confidence intervals which is more trustworthy compared to other Sobel tests that are used to test mediation (Preacher and Hayes, 2008). Further, this study used Model 1 to examine green organizational Culture moderates the relationship between Green HR Practices and environmental performance. The moderation analysis tests whether GHRP shows different relationship strength with EP based on GOC. The PROCESS Macro permits researchers to add interaction terms while it generates conditional effects at three different levels of the moderator which are low and medium and high. The organizational behavior research approach uses culture as a boundary condition which defines how HR practices will function in organizations (Dumont et al., 2017; Roscoe et al., 2019).

4.1. Reliability

5. Table 3: Summary of reliability statistics

Variables	No. of Items	Alpha	Decision
Green HR Practices (GHRP)	10	0.7841	Reliable
Environmental Performance (EP)	5	0.846	Reliable
Eco-Friendly Behavior (EFB)	6	0.913	Reliable
Green Organizational Culture (GOC)	6	0.866	Reliable

In the above table 3: the researchers conducted reliability analysis to assess the internal consistency of their measurement scales. The Cronbach's Alpha values for all constructs

exceeded the recommended threshold of 0.70 as per to Nunnally, (1978) which demonstrated strong reliability. Thus, based on the findings, the values of alpha is greater than .70 clearly shows all items used in the study is reliable.

4.2. Sample adequacy

Table 4: Summary of KMO and BTS test

Study variables	KMO Value	χ^2 and Sig.	Decision
Green HR Practices (GHRP)	0.861	725.43, < .05	Adequate sample
Environmental Performance (EP)	0.842	496.27, < .05	Adequate sample
Eco-Friendly Behavior (EFB)	0.853	612.19, < .05	Adequate sample
Green Organizational Culture (GOC)	0.835	578.64, < .05	Adequate sample

The findings of the KMO and BTS Test indicate that the data can be analyzed using factor analysis on all four variables of the study. All the KMO values of the Green HR Practices (0.861), the Environmental Performance (0.842), the Eco-Friendly Behavior (0.853) and the Green Organizational Culture (0.835) are above the proposed meritorious sampling adequacy of 0.80. Likewise, BTS test of each construct had extremely significant chi-square values ($p < .05$),

indicating that the correlation matrices are not identity matrices and the items in each scale are correlated enough to warrant the factor analysis. Combined, these results are good indications that sampling size and data format are suitable to perform a reliability and validity test, as this will provide a strong analysis of the theorized correlation in the tourism sector of Khyber Pakhtunkhwa.

4.3. Hypotheses testing

Table 5: Summary of hypotheses testing

Tests	Paths	β	t-value	Sig.	Decision
Simple Regression	GHRP $\rightarrow$ EP	0.412	7.86	.0001	Supported (H1)
Mediation (Model 4)	GHRP $\rightarrow$ EFB	0.478	9.21	.000	Supported
	EFB $\rightarrow$ EP	0.365	6.74	.000	Supported
	(GHRP $\rightarrow$ EFB $\rightarrow$ EP)	0.175	Bootstrapped CI [0.112, 0.246]	.000	Supported (H2)
Moderation (Model 1)	GHRP $\times$ GOC $\rightarrow$ EP	0.198	3.94	.000	Supported (H3)
	Conditional Effect Low	0.291	5.12	.000	Positive but weaker
	Conditional Effect Medium	0.412	7.86	.000	Stronger effect
	Conditional Effect High	0.523	9.34	.000	Strongest effect

Based on above findings, there is a strong significant and positive effect of green HR practices (GHRP) on environmental performance (EP). Thus, we identified supports for H1. Similarly, in mediation (Model 4): Eco-friendly behavior (EFB) partially mediates the relationship between variable between GHRP and EP. The indirect effect was important and the bootstrapped confidence intervals did not contain zero. Thus, hypotheis H2 was accepted. Furthermore, in Moderation (Model 1): Green organizational culture (GOC) significantly moderates the relationship between GHRP and EP. Hence, this study supported H3.

5. Conclusion

This study examined green HR practices (GHRP) influence environmental performance (EP) in the tourism sector in Khyber Pakhtunkhwa. Also, Eco-friendly behavior (EFB) was used as mediator between green HR practices (GHRP) and environmental performance (EP). Additionally, organizational culture (GOC) used as moderator between green HR practices and environmental performance. The results showed that GHRP has a strong positive direct and indirect impact on EP by promoting environmentally friendly practices of staff. By introducing sustainability in HR processes, including and such hiring, training and development, performance appraisal and payment, the employees tend to be more inclined to environmental friendliness practices, which will eventually produce better waste reduction efforts, resource conservation and organizational sustainability. In addition, the moderating effect of GOC points out that in case the organizational culture reflects the values related to the environment, the effect of HR practices on the performance will be more significant, and the interactions between HR systems and cultural values will be synergistic. These outcomes highlight the relevance of HR-initiated sustainability approaches in overcoming the environmental issues of the fast-growing tourist market. In line with previous studies, the present study supports the existing relationship between HR practices and the environmental outcomes. As an example, Renwick et al. (2013) and Kim et

al. (2019) also highlighted that green recruitment and training helps employees be committed to sustainability, which confirms to our observation that GHRP has a positive effect on EP. On the same note, Afsar et al. (2020) and Arici and Uysal (2022) proved that eco-friendly behavior is a mediator between HR interventions and organization performance, which is why we have already seen that EFB is an important mediator. Furthermore, the moderating impact of GOC identified in this study can be compared to the research by Roscoe et al. (2019) and Dumont et al. (2017) who claimed that the organizational culture reinforces the power of HR-driven sustainability programs. In confirming these relations within the context of the Khyber Pakhtunkhwa tourism sector, this study will not only confirm the previous research but will also project its application to labour based services industries in the developing countries and it will contribute to the development of sustainable tourism both theoretically and practically.

5.1. Implications

5.1.1. Theoretical Implications

The current research makes a key theoretical contribution by applying Social Identity Theory (SIT) and the Ability-Motivation-Opportunity (AMO) framework to the tourism sector of a developing nation. The empirical validation of the mediating effect of eco-friendly behavior (EFB) and the moderating effect of Green organizational culture (GOC) makes the research a dual-lensed study on the psychological and organizational perspectives of the HR practices, which are transformed into environmental results. SIT describes how commitment and environment-friendly behavior of employees are driven by their identification with organizations that are environmentally responsible, whereas AMO indicates that structural and motivational circumstances can help employees to convert HR practices into performance outcomes. Collectively, these frameworks show that sustainability in tourism does not exist as a mere organizational policy issue but also of the identity of employees and opportunity structures. This extension of the applicability of SIT and AMO to

other areas other than manufacturing and general business sectors where the largest part of the previous research has been focused and places them in the context of the unusual service-based dynamics of the hospitality and tourism industry in Pakistan. In this way, the research contributes to the field of theoretical discussion, demonstrating that the sustainability that is driven by HR can be perceived both at an individual and a cultural level.

5.1.2. Practical Implications

Practically, the findings have significant implications to managers, practitioners and policymakers in the tourism sector of Khyber Pakhtunkhwa. The argument is that it is necessary to incorporate sustainability in HR activities in order to attain significant environmental performance. Green recruitment will make the new employees join the workforce with good environmental concern and green training will provide them with skills to adopt conservation habits like saving on energy, minimizing wastes and offering guests services sustainably. These practices are further supported by performance appraisal and compensation systems which compensate eco-friendly behavior which results in a motivational and accountable cycle. In addition to this, the moderating position of Green Organizational Culture emphasizes the fact that HR practices cannot be effective unless they are underpinned with a solid cultural base. With the inclusion of sustainability into the organizational norms and values, the employees will view HR interventions as genuine and in line with the mission of the organization and the greater the employees will be willing to adopt environment-friendly behaviors. To the policymakers, these findings are a guide in formulating sustainability policies at sector-level, job training and compensation systems that can be aligned to the Sustainable Development Goals (SDGs). Through green HR practices institutionalization and a supportive culture, tourism organizations are able to minimize their ecological footprint, enhance competitiveness and help in the development of the tourism industry in Pakistan, which is developing.

5.2. Limitations

Despite the fact that this research is insightful in terms of how green HR practices (GHRP) can contribute to a positive environmental performance (EP) by means of eco-friendly behavior (EFB) and Green Organizational Culture (GOC), a number of limitations must be presented. First, the study was carried out at one province, Khyber Pakhtunkhwa, which limits the relevance of the results to the other provinces of Pakistan or the international tourism settings. Various provinces might possess different degrees of tourism development, cultural actions, and environmental policies which might affect the functionality of GHRP. Second, the research was based on self-reported surveyed information, which can be influenced by social desirability bias, because employees can exaggerate their environmentally friendly practices or organizational dedication to sustainability. Third, the cross-sectional design does not provide the possibility of establishing the causality between HR practices, employee behavior, and environmental performance. Longitudinal information would provide more evidence of the time transformation of these relationships. Lastly, the research was conducted mainly on white-collar workers, not frontline, seasonal workers that are very important in the running of tourism and whose actions would greatly affect the environmental performance.

5.3. Future study

These limitations can be resolved in future studies in a number of ways. First, it would be beneficial to broaden the scope of the study to various provinces or even countries to make the results more generalizable and also make comparisons of the effect of GHRP, EFB, and GOC in other tourism settings across the various cultures. Second, the longitudinal design would allow the researchers to observe how the employee behavior and organizational performance changes with time, which is more convincing with regard to causality. Third, the presence of qualitative techniques, including interviews, focus groups, or case-studies might provide more insights into how the

organizational culture impacts the sustainability practices and how the employees view the HR-based green initiatives. Fourth, more moderators and mediators, including the style of leadership, the size of the organization, regulatory frameworks or employee motivation could be examined in future studies to gain a better insight into the boundary conditions that could affect the effectiveness of GHRP. Lastly, consideration of frontline and seasonal staff in future samples would give a more detailed image of sustainability in tourism organisations since such employees usually come into direct contact with the guests and handle services that tend to require a lot of resources. By improving on these areas, future research can expound on the present study to enhance both the theoretical framework and practical uses of sustainable HRM in tourism as an industry.

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