



Linking Green Human Resource Practices and Environmental Performance: The Role of Green Innovation as Mediator and Environmental Strategy as Moderator

Iftikhar Hussain¹, Mehrab Nazir², Qurrahtulain Khan^{1,*}, Saadullah Shah³

¹Assistant Professor, Department of Public Administration, Faculty of Management Sciences, University of Kotli Azad Jammu and Kashmir, Pakistan

²School of Economics and Management, Jiangsu University of Science and Technology, Zhenjiang, China

³Ph.D Scholar, Institute of Management Studies, University of Peshawar, Peshawar, Pakistan

ABSTRACT

Purpose: This research study aims to investigate the impact of green human resource practices on environmental performance.

Methodology: In this study, data was collected via a structured questionnaire, which consisted of different segments relating to the social-economic factors of respondents and questions relating to the main variables (green human resource practices and environmental performance). One section of the questionnaire is designed to examine the mediating effects of green innovation and the moderating effects of environmental strategy. Moreover, structural equation modelling is used to analyze the statistical relationship between the variables.

Findings: Results of the study reveal that there is no direct relationship between green human resource management and environmental performance. In contrast, green innovation mediates the relationship between green human resource management and environmental performance. Furthermore, it is suggested that environmental strategy also plays a significant role in enhancing the company's environmental performance by moderating the relationship between green innovation and environmental performance.

Implications: Many academics and practitioners, particularly those working in the field of business, will benefit from the findings. Research limitations and future research opportunities are also addressed.

Keywords: Human resource practices, innovation, environmental performance, environmental strategy

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*Address of Correspondence:

Qurrahtulainkhan85@hotmail.com

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1. INTRODUCTION

The increasing global involvement in environmentalism has resulted from particular approaches to protecting the environment (Jabbour *et al.*, 2013; Latan *et al.*, 2018; Yusliza *et al.*, 2019). Recently, stakeholders (such

as clients and employees) have required that companies undertake more significant environmental action (Boiral, Paillé, & Raineri, 2015; Boiral, Raineri, & Talbot, 2018). Consequently, corporate companies are transitioning from conventional to new models by incorporating green strategies into their activities (A. Wagner, 2011), which can have a significant advantage (Jackson, Schuler, & Jiang, 2014). Dumont, Shen, and Deng (2017) pointed out that green initiatives are core strategies in green human resource management (GHRM), which necessitate employee behaviours that assist in achieving organizations' green goals. As a result, GHRM needs to inspire workers to participate in sustainability projects consistent with the organization's corporate mission (Roscoe *et al.*, 2019). As Jackson and Seo (2010) explain, GHRM is a series of strategies used by organizations to enact policies that contribute to environmental sustainability.

The growing global GHRM may be described as adopting HRM practices that positively influence employee pro-environmental practices and, eventually, promote organizations' proper environmental performance (Chaudhary, 2020). It incorporates ecological management into all HRM activities, from recruiting and selecting to preparation and growth and employee success management (Kerdpitak 2020; M. Wagner 2013). Pro-environmental behaviour is a type of occupational behavior that encompasses any activities taken by workers to protect the environment, whether structured or voluntary, such as preserving water and electricity, recycling materials, and printing double-sided (Chaudhary, 2020). These activities are more likely to have a favorable impact on organizational environmental success. According to research, environmental success is often dependent on maintaining employees' skills, capacities, and enthusiasm, which serve as the foundation of the environmental management framework (Jabbour, Santos, & Nagano, 2010; Kim, Kim, Choi, & Phetvaroon, 2019a). Interest in environmentalism is attributed to a variety of factors.

In this sense, businesses have recognised that protecting natural resources or the ecosystem is critical to their long-term viability. Furthermore, it is well known that organizations' contempt for the natural world would ultimately negatively impact their environmental and financial survival (Quazi, 1999; Zhu *et al.*, 2020). As a result, companies have recognised the importance of incorporating ecological sustainability, behavioral, social, and financial aspects into their business strategy and procedures (Ansari, Farrukh, & Raza, 2021; Ren, Tang, & Jackson, 2018). Consequently, there has been a growth in academic interest in "greening" companies worldwide (Chaudhary, 2020). This involves the rise of green human resource management (GHRM), which seeks to incorporate environmental management into HRM functions. As a result, GHRM was crucial in cultivating a sustainability philosophy in organisations (Kim *et al.*, 2019b; Nisar *et al.*, 2021).

Sobaih, Hasanein, and Elshaer (2020) have correlated green human resource management or pro-environmental attitudes among workers and environmental success. However, research on the interrelationships between these factors in businesses is still in its early stages (Kim *et al.*, 2019b). GHRM, green or pro-environmental action, and environmental success literature are often suitable for large enterprises, with few studies having proposed these concerns for small businesses. This is particularly valid for small businesses (Saima Ahmad *et al.*, 2021; Singh *et al.*, 2020). Even though small businesses account for a significant portion of the global tourism industry, research on GHRM, eco-friendly, renewable, pro-environmental action, and environmental performance is scarce. Few studies have discussed these issues in the sense of companies.

GHRM practices have played a significant role in establishing corporate environmental standards in Pakistan (Ababneh 2021; Famiyeh *et al.*, 2018). Though several businesses do not follow these green practices, most firms have decided to engage in green practices such as personnel control to satisfy industry demands (Agyabeng-Mensah *et al.*, 2020). The GHRM is a management strategy that is highly likely to boost the overall business reputation of companies and aid their success in the current climate. GHRMPs have influenced experts' and researchers' human resource management and operations management goals, respectively (Gill

Ahmad & Kazmi, 2021; Jabbour & de Sousa Jabbour, 2016). Renwick, Redman, and Maguire (2013) pointed out that GHRMPs must be studied simultaneously since activity control necessitates extensive human intervention. A recent study attempted to determine the synergistic effects of GHRMPs on success (social, environmental, and economic) (Agyabeng-Mensah *et al.*, 2020; Zaid, Jaaron, & Bon, 2018). However, research has not been conducted to investigate the synergy between GHRMP and environmental performance (EP), green innovation (GI), and environmental strategy (ES). Furthermore, studies such as Mardani *et al.* (2020) argue that Pakistan is underrepresented in the GHRMPS literature. Amrutha and Geetha (2020) suggested that Pakistani industries adopt green training to enhance their environmental performance as they usually lack green knowledge.

Problem Statement

Numerous research studies have been conducted in both developing and developed nations to examine the effect of green human resource practices on environmental performance (Jabbour, Santos, & Nagano, 2010; Kim, Kim, Choi, & Phetvaroon, 2019a). However, a little attention has been paid to Pakistan to the effect of green human resource management practices on environmental performance. The government of Pakistan has also planned to revamp its economy through ecological changes and innovation in business sectors. So, it is necessary to facilitate the transformation of the green concept in the firm. However, green human resource management practices, environmental performance, green innovation, and strategic performance concerning the climate have not been studied together. In general, both green human resource management practices and environmental performance have not been researched in the banking sector. As a result, this research study focuses on addressing this gap based on the literature on green human resource management practices and environmental performance. Based on observations, this research will help incorporate these elements into the enhancement level of business and the economy.

Research Objectives

On the basis of the above discussion, the following major objectives are drawn for this research study:

- To observe the effect of green human resource management practices on environmental performance in Pakistan.
- To examine the mediating effect of green innovation in the relationship between green human resource management and environmental performance.
- To assess the moderating effect of environmental strategy in the relationship of green human resource management and environmental performance.

2. LITERATURE REVIEW

Human resource development is the major concern for organisations in today's age of globalization. Companies are now looking for ways to continuously develop their employees so that they can meet the challenges of the external environment. Moreover, businesses have also recognised that protecting natural resources or the ecosystem is critical to their long-term viability in this era of globalization. Furthermore, it is well known that organizations' contempt for the natural world would ultimately negatively impact their environmental and financial survival (Quazi, 1999; Zhu *et al.*, 2020). As a result, companies have recognised the importance of incorporating ecological sustainability, behavioral, social, and financial aspects into their business strategy and procedures (Ansari, Farrukh, & Raza, 2021; Ren, Tang, & Jackson, 2018).

Consequently, there has been a growth in academic interest in "greening" companies worldwide (Chaudhary, 2020). This involves the rise of green human resource management (GHRM), which seeks to incorporate environmental management into HRM functions. As a result, GHRM was crucial in cultivating a sustainability

philosophy in organisations (Kim *et al.*, 2019b; Nisar *et al.*, 2021). The concept of green human resource management is based on two different theories, i.e., the ability–motivation–opportunity (AMO) theory and the resource-based and dynamic capabilities perspective. The ability–motivation–opportunity (AMO) theory states that HRM practices are related to performance in terms of ability, desire, and opportunity (Pham and Tuckova 2018). HRM practices boost an organization's human capital via enhanced human capabilities, resulting in better performance, such as decreased waste and higher quality. These practices may impact workers' proactive behaviour (Bhatti *et al.*, 2021). However, the resource-based and dynamic capabilities perspective reveals that a firm's strategic advantage arises from integrating human resources knowledge, motivations, and behaviours with the organization's plans, processes, and activities. The RBV efficiently places "human resources" on the policy priority list (Opatha & Arulrajah, 2014b; Yahya Jamil & Farooq 2021). Researchers argued that RBV influenced the development of a macro perspective in human resource management (HRM) research (Edwards & Wright, 2001). RBV has a significant impact on the evident and well-established macro perspective in HRM research (Amjad *et al.*, 2021; Edwards & Wright, 2001). According to HRM behavioural research, a set of HRM practices may affect diverse workers' workplace attitudes and behaviours via various social and psychological processes.

Green Human Resource Management Practices

Human resource management is essential to the effectiveness of business approaches and policies. As a result, the effective development of sustainability awareness into a company's activities and mission necessitates workforce training in environmental policies and programs. GHRM is a new field of study that has attracted a lot of attention since studies (Ali Ababneh, Awwad, & Abu-Haija, 2021) highlighted the importance of human resource practices for effective environmental management and improved firm performance. Some companies are using GHRMPS as a human resources strategy to support pro-green corporate management (Al Jawali *et al.*, 2021; Edyta *et al.*, 2018; Jain & D'lima, 2018). Green human resource management entails incorporating environmental considerations into human resource strategies and procedures to encourage workforce eco-friendliness to help the company meet its sustainability objectives (Rubel *et al.*, 2021; Schaupp 2021). GHRMPS are human resource policies and practices that support firms' environmental policies by preventing pollution, controlling waste, and accomplishing maintainable use of natural resources and energy to improve corporate reputation and performance. Amrutha and Geetha (2020) highlighted that GHRMPS helps firms and their employees achieve ecological balance, economic prosperity, and sustainability requirements for wellness, well-being, social equity, health, and social equity. According to experts, the consent of a company's workers is needed for every environmental protection programme to be implemented.

Essentially, human carelessness at work contributes to environmental destruction (Dilchert & Ones, 2012; Soomro *et al.*, 2021). GHRM activities should promote ethical behaviour by employees to save the environment (Cherian & Jacob, 2012). It has been proposed that GHRM activities are needed to make a green company (Dumont *et al.*, 2017). Numerous researchers argued that GHRM would help build the connection between "green innovation, green creativity, and environmental sustainability" (Hameed *et al.*, 2020; Y. Tang *et al.*, 2020). They discovered that GHRM activities had a significant impact on green innovation. They also say that GHRM activities have a substantial effect on the environment's long-term viability. According to Shoeb Ahmad (2015), GHRM is described as using HRM practices to improve the sustainability of corporate capital, which helps strengthen environmental sustainability and increase employee understanding of environmental performance. According to O'Donohue and Torugsa (2016), higher levels of GHRM activities are closely correlated with increased financial advantages of green practices and the overall financial success of the organization. The GHRM framework is part of a larger corporate social responsibility scheme. Managers are currently expected to raise awareness among the organization's employees (Edyta & Bombiak 2019).

According to Opatha and Arulrajah (2014), representatives are encouraged to take an active part in environmentally sustainable activities when they are offered monetary and non-monetary benefits.

Green Human Resource Management and Environmental Performance

HRM practices have been shown to have a favourable and direct association with both work performance and organisational efficiency in GHRM and environmental improvement studies (Elshaer *et al.*, 2021; Longoni, Luzzini, & Guerci, 2018). According to studies, employees who received proper HRM procedures, such as appropriate training, compensation, and development, are more likely to demonstrate proper job efficiency, thus influencing overall organisational performance (Pham *et al.*, 2020; Yong *et al.*, 2019). Studies in environmental sustainability have shown that GHRM has a favourable and clear impact on environmental efficiency (Rawashdeh, 2018). GHRM has been shown to increase employee eco-awareness and green practices (Ahmed *et al.*, 2020), green creativity, and environmental efficiency (Ojo, Tan, & Alias, 2020). Green training and employee engagement, in particular, have been shown to have a substantial impact on firm environmental efficiency. GHRM also improves an organization's green corporate culture and overall environmental efficiency (Ghouri *et al.*, 2020; Rawashdeh, 2018). According to research, businesses that implement structured environmental management schemes are more likely to achieve high environmental efficiency, according to a study (Singh *et al.*, 2020). GHRM regulations and procedures make up this systematic environmental protection framework. However, due to a lack of funding and HR assistance, small companies, such as small hotels, restaurants, and travel agencies, are less willing to follow structured HRM activities (Guerci, Longoni, & Luzzini, 2016; Hameed *et al.*, 2020).

On the basis of the above discussion, the following hypothesis is drawn for this research study:

H₁: There exists a direct relationship between GHRM practices and environmental performance.

Green Human Resource Management and Green Innovation

Green innovation is based on the development of environmentally friendly manufacturing through the adoption of business practices (Muisyo & Qin, 2021; Parida & Brown, 2021), such as the use of eco-friendly raw materials, the use of fewer materials during product strategy using eco-design values, and the goal of reducing electricity, emissions, and additional raw material consumption (Gunasekaran & Spalanzani, 2012; Nisar *et al.*, 2021). Numerous studies have found that firms with green innovation and creativity are more effective (Parida & Brown, 2021) and perform better than their competitors because they use their green resources and capabilities to rapidly and effectively respond to customer needs (Jain & D'lima, 2018) and add intangible values, assimilate intangible values, and apply knowledge intangibly. According to several studies, HRM seems to have a favourable and significant effect on technological and product innovation (Barba-Aragón & Jiménez-Jiménez, 2020; Shoaib *et al.*, 2021). GHRM rules that encourage a loyal attitude rather than enforcement have a beneficial impact on a company's creative orientation. Ren *et al.* (2018) said that the GHRM approach has a good effect on product innovation in businesses with strong beliefs and a flat organisational structure.

H₂: There exists a direct relationship between GHRM practices and green innovation.

Green Innovation and Environmental Performance

Environmental success is related to corporate programmes designed to fulfil and satisfy social standards for natural environments (Rehman *et al.*, 2021; Singh *et al.*, 2020; Yan & Zhang, 2021). Environmental impacts were considered in the best match of lawful environmental criteria of organisational processes, goods, and resource use (Dumont *et al.*, 2017; Mansoor *et al.*, 2021). Previous surveys showed that the efficiency of environmentally sustainable goods, the green method and product creativity rely on environmental success and integration into the corporate processes and product growth issues of ecological sustainability (Kim *et al.*,

2019a; Mardani *et al.*, 2020). Green innovation is linked to the environmental organisation plan of companies, and green innovation promotes environmental efficiency (Adegbile, Sarpong, & Meissner, 2017; Calza, Parmentola, & Tutore, 2021). In addition, green commodity and process development reduces harmful impacts on the ecosystem and increases the company's financial and social achievement by reducing pollution and costs (Singh *et al.*, 2020). Previous reports indicated that green innovation cannot be observed as proactive managerial intentions and strategies that increase environmental efficiency in order to achieve a competitive edge as the firm's reactive interventions to stakeholder pressures (Ahmed *et al.*, 2019; Marrucci *et al.*, 2021). We use the RBV to anticipate the vital business tools used in the company to improve its environmental efficiency and to achieve goodwill among core stakeholders for green processes and product creativity. We predict that, therefore:

H₃: There exists a direct relationship between green innovation and environmental performance.

Green HRM and Environmental Performance: The Mediating Role of Green Innovation

Renwick *et al.*, 2013; Wang & Yang, 2021) increase workers' environmental consciousness to boost the company's performance (Renwick *et al.*, 2013; Wang & Yang, 2021). Earlier studies indicated that GHRM affects green innovation (Song, Yu, & Xu, 2020), green businesses, and green enterprise performance (O'Donohue & Torugsa, 2016; Wang & Yang, 2021). Existing literature suggests that potential employees can be recruited into a system for recruitment and selection of green hires to ensure that the environmental beliefs and values of the company are appreciated and understood by new hires (Jackson & Seo, 2010; Muisyo & Qin, 2021), based on the beliefs and ecological importance of prospective employees (Bassetti, Blasi, & Sedita, 2021; Renwick *et al.*, 2013). Similarly, green training & growth (Longoni *et al.*, 2018), green benefits & compensation (Vega-Muoz *et al.*, 2021; Yusoff, Nejadi, Kee, & Amran, 2020) stand out as key HRM activities to promote superior environmental performance (Renwick *et al.*, 2013). Such practices include green training and creation. Green training and development programmes for green employee analysis, recycling, waste management, and electricity efficiency (Renwick *et al.*, 2013; Singh *et al.*, 2020), as well as eco-friendly objectives, responsibilities, and evaluation in the performance management system (PMS) (Renwick *et al.*, 2013), are argued in favour of the development of green training and development programs.

H₄: Green innovation moderates the relationship between GHRM and environmental performance.

Green Innovation and Environmental Performance: The Moderating Role of Strategic Performance

According to research, a company's environmental strategy and relevant, proactive policies on creating environmentally sustainable technology may increase their financial results (Channa *et al.*, 2021; Kraus *et al.*, 2020; M. Tang *et al.*, 2018). On the other hand, an ineffective management strategy may render environmental policy reactive rather than constructive. It can damage the ecosystem, increase the likelihood of future disasters, and harm its credibility as an end product (Kraus *et al.*, 2020). Natural resource philosophies in emission control, sustainable development, and long-term viability creation as core environmental strategies propel businesses forward to gain a competitive advantage (Li *et al.*, 2018). Numerous research studies illustrate the influence of environmental strategies on overall environmental efficiency and the critical function of environmental strategies in mediating the effects of CSR on environmental performance efficiency (Guo *et al.*, 2021; Longoni *et al.*, 2018). Studies in environmental sustainability have shown that GHRM has a favourable and clear impact on environmental efficiency (Rawashdeh, 2018). GHRM has been shown to increase employee eco-awareness, green practices (Jabbour & de Sousa Jabbour, 2016), green creativity, and environmental strategy effectiveness.

H₅: Environmental Strategy moderates the relationship between green innovation and environmental performance.

RESEARCH FRAMEWORK

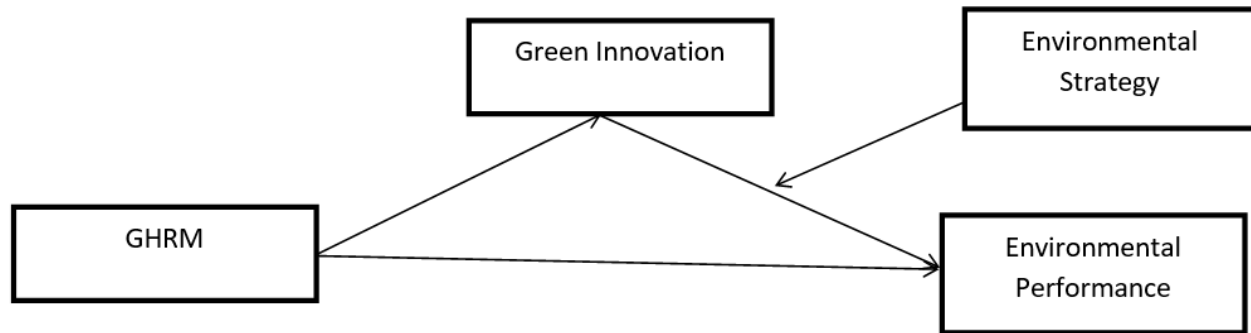


Figure 1. Research Framework.

3. METHODOLOGY

In the present study, the sample comprises 300 employees belonging to the private institute of Kotli AJK, Pakistan. Data was collected through a structured questionnaire which consisted of different segments relating to the social-economic factors of respondents and questions relating to the main variables (green human resource practices and environmental performance). One section of the questionnaire is designed to examine the mediating effects of green innovation and the moderating effects of environmental strategy.

The reliability of the questionnaire is checked through Cronbach's alpha. Cronbach alpha determines a superior degree of inter correlation among the test items (Cronbach & Warrington, 1951; Saunders *et al.*, 2007). Moreover, structural equation modelling is used to analyse the statistical relationship between the variables.

Data Analysis

Descriptive Analysis

Descriptive analysis is done by studying the demographics of the respondents with the help of frequency and percentage. The results of the descriptive analysis are given in the Table 1:

Table 1. Demographics.

Variable	Category	Frequency	Percentage
Gender	Male	196	65.33
	Female	104	34.66
Age (Years)	20-30	240	80.0
	31-40	45	15.0
	41-50	15	5.0
Qualification	Bachelors	195	65.0
	Masters	75	25.0
	Postgraduates	30	10
Income	1-10000	36	12.0
	10000-20000	15	5.0
	20000-30000	75	25.0
	30000-above	174	58.0

According to the findings of Table 1, the demographic characteristics of the company's employees showed that 65.33 percent were male and the remaining 34.66 percent were female. Among the provided respondents, 80 percent were between the ages of 20 and 30, 15 percent were between the ages of 30 and 40, and the remaining 5 percent were between the ages of 40 and 50. About 65 percent of them are at bachelor's level, 25 percent are at master's level, and 10 percent are at postgraduate level. We also examined the income situations of students, and most students had over \$30,000 in earnings each month. This study used the magnitude of research variables from various studies.

Structure Equation Model

Table 2. Multiple Regressions.

	B	S.E.	C.R.	P	Decision
H2	0.672	0.043	15.688	***	Supported
H1	0.040	0.024	1.658	.097	Not Supported
H3	0.215	0.049	4.358	***	Supported
H4	0.381	0.037	10.393	***	Supported
H5	0.301	0.049	6.081	***	Supported

As seen in Table 2, all the factors that are both exogenous and endogenous are linked together. Using structural equation modelling, this study examined the role of green human resource management in influencing environmental performance with the help of green innovation. The hypothesis was estimated statistically using SPSS 20 and AMOS 24 software. As a result, the model's goodness of fit was found to be within the acceptable range (chi-square = 329.471, df = 193, CMIN/DF = 1.707, p = 0.05, AGFI = 0.7768, GFI = 0.836). It was examined using SPSS (AMOS) using a bootstrapping procedure with a resample of 2000 to evaluate the SEM model's standard beta, standard model R², P-value, and t-values. Results in Table 2 show that four hypotheses had positive and significant statistical outcomes, whereas just one hypothesis was insignificant. For accessing H1 with $\beta = 0.301$ and $p < 0.01$, H2 with $\beta = 0.672$ and $p < 0.01$, H3 with $\beta = 0.215$ and $p < 0.01$, H4 with $\beta = 0.381$ and $p < 0.01$ and H5 with $\beta = 0.040$ and $p < 0.01$. There was support for Hypotheses 2, 3, 4, and 5, but not for Hypotheses 1 and 2. A complete mediation exists between green human resource management practices and environmental performance, as hypothesis H4 is positive and substantial in mediation. On the other hand, the moderator sees a strong link between environmental performance and green innovation.

4. DISCUSSION

Recognizing the advancement of the green revolution in Pakistan, the major purpose of this research study is to explore the relationship between four concepts, i.e., green human resource management practices, green innovation, environmental strategy, and environmental performance. Several studies on GHRM reveal that green human resource management plays a major role in moulding employee pro-environmental behaviour and environmental performance (Daily and Huang, 2001; Jackson and Seo, 2010; Renwick *et al.*, 2013). However, some empirical research studies (Dumont *et al.*, 2017; Masri and Jaaron, 2017; Saeed *et al.*, 2019) have not studied this relationship, except for a few exceptions classified as single analysis (Harvey *et al.*, 2013) or general HRM practices (Paille *et al.*, 2014). Although Dumont *et al.* (2017) used a large sample size, they did not look at the impact of green innovation on organisational outcomes. According to Ren *et al.* (2018), there has been a lack of empirical research on employees' perceptions of GHRM practices.

Initial analysis of the study variables focused on establishing an association directly linking the independent variables (GHRMPs) and the dependent variable (environmental performance). As shown by the P-value finding, these two variables have a weak correlation, indicating that green HRM does little to boost the

company's environmental performance. First of all, the mediating variables (green innovation) have a significant positive effect on environmental performance, confirming that green human resource management practices play an important role in improving environmental performance by increasing green innovation in a company's environment. These results are consistent with the previous study (Yan, X., & Zhang, Y., 2021).

Moreover, the findings of the study also showed that GHRMPs significantly and positively affect environmental performance. These results are consistent with the findings of the previous study (Naz *et al.*, 2021). This means that these practices reduce the usage of conserving water, waste reduction, energy usage, reduction in purchasing non-renewable materials, reduction in overall cost, and enhance the reputation and marketplace position of the organization. It also supports environmental strategies and has a direct influence on the environmental performance of large businesses.

Results of the study revealed that green innovation impacted environmental performance both on its own and under the influence of GHRM practices. Consequently, GHRM practices via green recruitment, training, incentives based on performance, empowerment, etc., enable companies to attract, retain, and maintain green workers for sustainable, environmentally-friendly innovation (Jabbour *et al.*, 2013). It is therefore recommended that a company include green human resources in the many social networks that make human capital valuable enough for a particular company and the competitive companies in its marketplaces to utilise unique organisational characteristics (Jackson & Seo, 2010). Results of the study revealed that the company should have practical GHRM techniques and strategies to recruit, develop, and retain green workers for green technology and enhance environmental performance to obtain a competitive improvement over its market competitors (Khurshid & Darzi, 2016).

Finally, if the company's employees become engrossed in the green human resource management speculation, they retain a high level of enthusiasm for squeezing the green theory. Therefore, green innovation has increased the desirability of the environmental performance of a company.

Managerial Implications

The study has many theoretical implications, in particular for employees and firms. Firstly, the study contributes to small companies, particularly SMEs, with limited GHRM studies, environmental pro-environmental behavior, and environmental performance. It improves the knowledge of the connection between GHRM, environmental performance in small businesses, and environmental performance. The study has shown that GHRM positively and substantially affects small companies' environmental performance. Second, the study showed that green innovation in businesses has a function as a mediator in the connection between GHRM and environmental results. Thirdly, the study has not only shown GHRM's direct and substantial impact on the environment but also the indirect effect of green innovation. Therefore, researchers must be careful when generalising findings to a different setting. Fourthly, emphasis should be given to examining and understanding both green innovation and environmental strategic (task-related and pro-active) employee behavior, because it plays an important function between GHRM and environmental performance. Results suggested that GHRM practices are critical in boosting environmental performance in a sustainable production organization. More focused GHRM interventions in recruiting and selection, reward and pay, performance appraisal, and participation and empowerment might help organisations improve their environmental performance. For example, the organisation may combine incentive and compensation practices from GHRM with performance management to ensure that workers are recognised for their contributions to waste reduction and optimise performance in operational tasks. Additionally, environmental performance might be improved by stressing environmental competencies in the recruiting and selection procedures and providing chances for workers to participate in developing environmental initiatives.

For industrial practitioners, particularly in small companies, research has several consequences. First, small companies' owners and/or managers must be more careful in hiring and choosing environmentally friendly workers. A job-specific test must be carried out to validate these behaviours before selecting the appropriate personnel. This technique guarantees that the new applicants conform to the organization's environmental management policy. Secondly, the variety of their temporary workers should be recognised by the companies' owners and/or managers. In today's study, the majority of employees are temporary or casual workers. Third, it is vitally necessary to invest in temporary workers to make them permanent and give proper training about environmental issues to enhance their environmental performance. New workers should also provide environmental training to improve their new environmental behavior.

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