

PROMOTING ENVIRONMENTAL PERFORMANCE THROUGH GREEN HRM: MEDIATING ROLE OF EMPLOYEE GREEN INVOLVEMENT

Muhammad Shoaib, Tomas Bata University
Roman Zámečník, Tomas Bata University
Zuhair Abbas, Tomas Bata University
Ayesha Nawal, Universiti Sultan Zainal Abidin

ABSTRACT

This study aims to investigate the influence of green human resource management practices on environmental performance under the lenses of AMO theory with the mediation role of employee green involvement. Nowadays, every industry is concentrating on sustainable growth as environmental issues such as global warming, water shortages, emissions, and so on are becoming more prominent. Green Human Resource Management practices (GHRM) play an influential role in bringing green initiatives to its employees. The questionnaire was distributed among Pakistani manufacturing companies and gathered data from 140 employees working in it. The data analysis and assessment of the study's hypothesis and the mediated impact between green human resources and environmental performance were done using PLS-SEM. According to the findings, three sets of Green HRM practices focused on the Ability-Motivation Opportunity framework significantly affected employee green involvement. Furthermore, work involvement in green initiatives was linked to improved environmental performance. This paper makes a meaningful contribution because it is the first empirical proof in Pakistan's context, and it would assist managers in revisiting HRM practices to create a pollution-free environment.

Keywords: Green Human Resource Management, Employee Green Involvement, AMO Theory, Pakistan

INTRODUCTION

Due to the rise of environmental concerns, the idea of sustainable performance was adopted, focusing on the need for a firm's environmental performance to be identified above its economic output (Bombiak & Marciniuk-Kluska, 2018; Hyršlová & Böhmová, 2004). As a consequence of growing environmental issues, an increasing number of firms implement international environmental sustainability practices to succeed in business while still preserving the environment (Delmas & Pekovic, 2013; Gunasekaran & Spalanzani, 2012). Subsequently, Jabbour & Santos (2008) conclude that to achieve this green goal, they must adequately support human resource policies. According to (Renwick et al., 2013), this assumption is based on the Ability Motivation Opportunity (AMO) theory, which states that job success is determined by an employee's ability, motivation, and opportunities to contribute to the company's objectives (Campos & Vazquez-Brust, 2016).

Any organization's most assets are its committed employees. Employees who remain for a prolonged period of time add to the company's overall success (San Park & Kim, 2009). Employees are the organization's most visible stakeholders, to which companies owe everything. This is why employee's beliefs have a strong influence on the business (San Park & Kim, 2009). The manufacturing sector has been noted as the leading source of emissions and environmental issues, Dal Mas (2019). Pakistan contributes 0.4 percent of global carbon emissions, a steadily rising figure

(Shahzad et al., 2017). However, the manufacturing industry is regarded as a source of multiple forms of environmental emissions in both developed and developing nations, requiring a critical assessment, monitoring, and correcting of its management tasks (Rehman et al., 2016). Green HRM is commonly assumed to provide businesses with various advantages: employee recruitment and retention of staff (Muster & Schrader, 2011), cost savings and comparative edge (Carmona-Moreno, 2012), environmental improvement (Kim, 2019; Masri & Jaaron, 2017; Mazziet, 2016), and efficacy improvement (Gholami et al., 2016).

This study attempts to bridge the research gap in several ways. First, it has been suggested by Shoaib, et al., (2020) to further explore the green HRM phenomenon with the environmental performance to address the environmental challenges in developing countries such as Pakistan, which is still the leg behind to mitigate the climate issues at the macro-level and micro level. Second, in the past, several attempts have been carried out on green HRM, but they overlooked the role of mediation mechanism of employee green involvement (Jabbar & Abid, 2014; Mishra et al., 2014; Bhutto & Auranzeb, 2016). Third, Umrani, et al., (2020) suggested that future research may consider across different sectors. In this way, this study responds to this call to get a better understanding of green HRM practices for environmental performance in the leather industry. Finally, this leather industry of Pakistan to investigate GHRM is highly significant because Pakistan is closely linked to other advanced European trading partners who play a key role in pressuring environmental performance improvement. Identifying the key determinants of successful green HRM adoption decisions by businesses is a must before launching effective green strategies for businesses. The present study is crucial in aiding Pakistan's development of a deeper understanding of Green HRM adoption in a developing country.

Main environmental concerns in Pakistan have been the focus of attention, including carbon dioxide emissions, water waste, and the use and excretion of toxic substances that cause health problems both outside and within various organizations (Alam, Fatima & Butt, 2007; Mehwish & Mustafa, 2016). Pakistan, as a developing country, faces environmental pollution problems. With the country's industrialization, the issues associated with environmental threats seem to be more serious and dangerous. The main aim of environmental-related policies is to mitigate the detrimental impact of industrial practices by reducing toxic products and waste usage. Sustainable practices enhance the company's reputation and increase profits and business (Akhtar, 2019). The Environmental and Urban Affairs Division (EUAD) was renamed the Federal Ministry of Environment, and the Pakistan Environmental Protection Ordinance (PEPO, 1983) was replaced by the Environmental Protection Act (1997). The other Environmental Protection agencies are working effectively to set up environmental laboratories and national environmental-based quality standards, according to a milestone. Environmental protection authorities are working to raise awareness through workshops and training at both the academic and industrial levels. This study aims to include a context that would benefit both researchers and businesses who wish to implement green human resource management strategies that will result in the implementation of green processes. It also introduces the green process and product innovation in various industrial sectors in Pakistan, which would help fix all of Pakistan's environmental problems and turn it into an environmentally friendly country (Protection, 1997).

LITERATURE REVIEW

There have been too many environmental incidents in the last century, including pollution, environmental instability, and global warming due to the unsustainable use of raw materials and gases. For the production of deleterious greenhouse gases, it is a must in today's economy to use green HRM. Over the last decade, green HRM has exploded in popularity in the corporate and academic worlds. Growing environmental consciousness has encouraged HR to follow Green HR practices, emphasizing a paperless approach to reduce carbon pollution and waste management

(Ahmad, 2015). Green HRM has described it as "the organized, scheduled alignment of typical human resource management practices with the organization's environmental priorities" (Jabbour, 2013). Wehrmeyer, who published his book *Greening People: Human Resource and Environment Management* in 1996, pioneered the concept of greening organizations by the integration of human resources and environmental management. He characterized GHRM as the application of HRMP to promote the efficient use of resources within organizations and, more broadly, to promote environmental sustainability causes. Carpooling, work sharing, internet procurement, recycling, telecommuting, video conferencing, virtual interviews, and the most effective use of energy-efficient office space indicate green HRM. Using an HRM helps employees understand the environmental challenges, thereby fostering more significant levels of environmental consciousness and involvement in the workplace (Mishra et al., 2014). "Managing Capital with Human-Capital Activities" authors Sharma and Gupta (2015) describe Human-Resource Management practices to create a better understanding of resource efficiency while also reinforcing the cause of environmental sustainability by raising employee awareness and enhancing employee commitment. The rise of GHRM covers the level of strengthening social (*i.e.*, work-life balance) and economic well-being (*i.e.*, benefit sustainability) as well as environmental awareness (*i.e.*, reduced waste). The idea of 'paradigmatic' practice of 'triple bottom line' GHRM underpins the premise that it aligns itself with three key pillars — the organization principles of the environment, social, and financial balance — over the period (Wagner, 2013). Several research, such as Jabbour, Santos & Nagano (2008), have also showed that appropriate human resource management strategies contribute to increased corporate environmental performance. They looked at organisations with ISO 14001 qualifications and discovered that the company's strongly inspired employees have more excellent environmental performance.

"A person's perceived relevance to an object based on inherent needs, values, and interest" is how involvement is defined (Zaichkowsky, 1985). Optimal employee participation is based on employee emotions or mood, according to (Zaichkowsky, 1985). In comparison, (Buckley et al., 2001) discovered that when managers contribute important insights and assist in corporate decision-making, this is referred to as employee involvement. (Buckley et al., 2001) believes that to achieve organizational goals, top management must interact and educate workers in their decisions. Employee high involvement work practices are closely linked to organizational dedication, according to a positive relationship. At the same time, (Cooper, Hoel & Faragher, 2004) considered commitment to be the most important component of employee involvement. The more committed and active workers in environmental conservation programs, the more oriented and focused they would be on environmental obligations (Matthes et al., 2014). When workers get more active, they can gain experience writing newsletters, coping with issues, and building problem-solving green teams and task groups.

More interested employees have a more excellent knowledge of operational concerns (Leana & Van Buren, 1999). Employee involvement in trust development, on the other hand, is required. Employee involvement expands when companies implement green initiatives in their green practices. Green involvement seeks to provide a consistent development-based vision of environmental management as well as a collaborative learning atmosphere for environmentally conscious action. It also allows for the creation of organized and unstructured (informal) networking channels to foster a corporate culture that is environmentally friendly.

Environmental performance is a metric that measures how committed an organization is to environmental protection. The adoption of green practices combined with HRM will boost environmental performance (Del Bro et al., 2007). For the achievement of environmental performance, several scholars show how GHRM and environmental management will cross-fertilize. For example, Jabbour, et al., (2013) found that the highest environmental performance was achieved when workers participated actively in green HRM processes, emphasizing the relevance of employee green practices in the workplace (Kitazawa & Sarkis, 2000; Jabbour & Santos, 2008).

This kind of green HRM practice in the industry has a positive impact on the environment. Employees are also a driving force behind adopting environmentally-friendly policies (Florida & Davison, 2001; Roy et al., 2013).

Furthermore, during the last decade, environmental performance has become profoundly relevant in practice and market analysis due to developing countries' accelerated loss of natural resources and the value of Corporate Social Responsibility (CSR) for companies to gain competitive advantage (Dao, Langella & Carbo, 2011). Green human resource management model has arisen as a company response to the environment's deterioration. Renwick, et al., (2013) also demonstrated the importance of integrating environmental management with HRM to review the literature on the subject. They also discovered a set of HRM policies evolving as an organization's response to environmental degradation. Companies concerned with environmental management, for example, often use green standards to choose work applicants, and they seek employees who are environmentally aware. Green performance indices are not included in the performance assessment system. According to the research, green HRM practices that will improve ability and motivation while still improving environmental performance are often effective.

The greening of HRM and the effects of environmental performance can be better interpreted in light of the Ability Motivation Opportunities (AMO) theory. This theory is most frequently used to explain human resource management practices' impact on organizational performance in empirical studies (Appelbaum, 2000; Boselie et al., 2005). High-Performance Work Practices (HPWS) are a group of distinct yet interconnected HR practices categorized based on three key factors: ability, motivation, and opportunity, according to AMO theory (Appelbaum, 2000). Abilities are focused on recruiting and selection practices and training and development programs to ensure that employee awareness and skills are needed to carry out specific tasks. Motivation is similarly focused on performance evaluation and financial and nonfinancial incentives, encouraging employee efforts to achieve performance objectives. Finally, opportunity refers to a collection of strategies that include involvement, autonomy-enhancing, and knowledge-sharing practices that promote employee interest in green practices (Marin-Garcia & Tomas, 2016). GHRM literature, such as a large number of studies, focuses on establishing a relationship between employee levels. At the same time, scholars neglected the organizational level at the workplace. Green HRM practices are crucial in the context of the leather manufacturing sector by drawing upon the Ability Motivation Opportunity (AMO) theory.

RESEARCH METHODOLOGY

This research focused on collecting and analyzing quantitative data. It used a formal instrument to evaluate the framework and hypotheses. Green human resource management practices, such as green recruitment and selection, green training and development, employee green involvement, and environmental performance, were measured using the scales in this study. Manufacturing leather companies in Pakistan are included in the sample population. Manufacturers of leather are chosen because they are more concerned with environmental concerns (Guerci et al., 2016). A purposive sampling method was used, and 140 questionnaires were found to be completed for data analysis. This analysis's emphasis is on environmental performance; those who have expertise and experience in green human resource management practices, employees' green involvement, and environmental performance have been identified. Until the data was gathered, ethical consent was sought, and data protection was ensured. This study's analysis model was analysed using smart PLS 3.0 and Partial Least Squares (PLS).

Males made up 75.7% of the sample, and females made up 24.3%. It's important to note that 35% of the research participants were between the ages of 30 and 40, and 13.6% were under the age of 30. Furthermore, 34.3% of the attendees were between the ages of 40 and 50. In terms of departments, 25.3 % of respondents worked in HRM and were worried about environmental

sustainability. This says a lot about the importance of GHRM. Furthermore, 32.9 % of respondents had more than ten years of experience (see Table 1).

Demographic Variable	Characteristic	Frequency	Percentage (%)
Gender	Male	106	75.7
	Female	34	24.3
	Total	140	100
Age	Under 30	19	13.6
	30-40	49	35
	40-50	48	34.3
	Above 50	24	17.1
	Total	140	100
Department	Finance	19	13.6
	Health safety & Environment	18	12.9
	HRM	35	25
	Marketing	19	13.6
	QEC	19	13.6
	Other	30	21.4
	Total	140	100
Work Experience	Less than 1	8	5.7
	3-Jan	17	12.7
	6-Apr	35	25
	10-Jul	34	24.3
	above 10	46	32.9
	Total	140	100
n=140 Source: Authors' own			

This study used a measuring scale previously used in the literature. It measured all things on a 5-point Likert scale (1=completely disagree and 5=completely agree) for clarification. Besides, positively define all measuring elements. The green recruitment and selection scale was adapted from Jabbour, Santos & Nagano (2010); Yong & Mohd-Yusoff (2016); three green training and development items were adapted (Jabbour et al., 2010). Employee green involvement (5 items) from Tang et al., 2018; and environmental performance (8 items) from Kim, et al., (2019); Longoni, et al., (2018).

The present research was done using "Smart-PL 3.0," which has several corresponding constructs in this study. Regarding the latent constructs' indicator loadings, the factor loadings are defined in Table II, loading all items (indicator variables) meaningfully with their corresponding constructs. Minimum loading (coefficient) of about 0.5 and a maximum loading of about 0.9 were used in the measured indicators. The optimal calculation for a latent variable analyzed according to (Bagozzi & Yi, 1988) was the load over a 0.6 threshold, thus a loading the component that was greater than 0.6 (see Table 2). These variables have a minimum load value of 0.707 and a maximum load of 0.837, which implies that they should measure this. The Variance Inflation Factor (VIF) for all variables was less than 3.3 (Diamantopoulos & Sigauw, 2006), indicating that multicollinearity was not an issue in the study model. Here is summarized. Therefore, all analysis structures, including their measurement scale elements, can be found in Table II, along with their loadings in the column heading of the table (coefficients).

Table 2					
CONSTRUCT MODEL					
Constructs	Indicator	Factor Loadings	Mean	SD	VIF
Environmental Performance (EP) R²=0.73					
	EP1	0.81	3.414	1.234	2.327
	EP2	0.766	3.451	1.177	2.199
	EP3	0.784	3.485	1.172	2.136
	EP4	0.757	3.498	1.146	1.972
	EP5	0.784	3.264	1.261	2.173
	EP6	0.811	3.328	1.134	2.236
	EP7	0.771	3.557	1.195	2.112
	EP8	0.787	3.681	1.167	2.257
Employee Green Involvement (EGI) R²=0.57					
	EGI1	0.737	3.151	1.193	2.431
	EGI2	0.837	3.242	1.111	2.145
	EGI3	0.735	3.289	1.094	1.564
	EGI4	0.717	3.214	1.136	1.436
	EGI5	0.751	3.319	1.206	1.672
Green Human Resource Management (GHRM)					
	GRS1	0.739	3.171	1.092	1.742
	GRS2	0.814	3.085	1.202	2.085
	GRS3	0.772	3.185	1.226	1.845
	GRS4	0.719	3.259	1.126	1.636
	GTD1	0.708	3.264	1.122	1.592
	GTD2	0.707	3.207	1.134	1.69
	GTD3	0.745	3.342	1.155	1.661
Note: SD= Standard Deviation, VIF= Variance Inflation Factors Source: Authors' own					

EMPIRICAL RESULTS

Used the SmartPLS 3.0 statistical package to perform Partial Least Squares and Structural Equation Modeling (PLS-SEM) tests. Since the data had to be distributed, normally Used the PLS-SEM approach instead of the covariance-based structural modeling (CB-SEM). The PLS-SEM technique, on the other side, requires no assumptions about data distribution. Consequently, irregular evidence does not confound the overall findings (Goodhue et al., 2012), which is why the PLS-SEM technique was used.

In view of the PLS-SEM literature (Hair et al., 2017), it is important to evaluate the under-study constructs' reliability using Dijkstra-rho Henseler's & Cronbach's Alpha coefficients. Table 3 shows that all values exceeded the 0.50 minimum thresholds, suggesting high construct reliability (Bagozzi & Yi, 1988; Hair et al., 2019). The Composite Reliability (CR) of the under-study constructs is represented with a minimum reliability value of 0.865 and a maximum reliability value of 0.927 using the Dijkstra-rho Henseler's (A) threshold of 0.808 as a composite determinant of reliability (Hussain, Nguyen, Nguyen & Nguyen, 2021).

Construct	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Employee Green Involvement	0.804	0.808	0.865	0.563
GHRM	0.855	0.855	0.889	0.535
Environmental Performance	0.91	0.91	0.927	0.614

Authors' processing from SmartPLS 3.0 Source: Authors' own

Furthermore, Fornell Lacker's (1981) method was used to determine discriminant validity. The results indicated that the understudied constructs met both the fundamental and strict assumptions, implying discriminant validity. It is necessary to remember that the diagonal values (in bold) of Fornell Lacker's table (see table 4) reflect the constructs' AVEs, which must be greater than 0.50. To certify the existence of discriminant validity, the AVEs of each construct should be greater than the AVEs of other constructs at both the row and column places (Fornell & Lacker, 1981).

Constructs	EGI	GHRM	EP
Employee Green Involvement (EGI)	0.75		
Green Human Resource Management (GHRM)	0.847	0.732	
Environmental Performance (EP)	0.876	0.814	0.784

Square roots of average variance extracted (AVE's) shown on the diagonal source: Authors' estimations from SmartPLS 3.0 Source: Authors' own

The proposed model's coefficients, standard error, t-quality, and significance values (p) were determined using a 5000-re-test bootstrapping system (Ramayah et al., 2018). Following a detailed examination of the model's fitness, path research is necessary. The causal relationships among the understudied structures are investigated and established at this stage of the analysis. The findings demonstrate the clear and indirect impact of GHRM practices on the leather industry's environmental performance in Pakistan.

The findings suggest that GHRM practices have a significant relationship with Employee Green Involvement (EGI). GHRM has a positive relationship with environmental performance as well. $GHRM=0.876$, $t=29.153$, $GHRM=0.408$, $t=23.665$, and $EGI=0.514$, $t=7.646$ are the regression coefficients and t-values (see Table 5) (Hussain, Hassan, Rafi & Quddus, 2019).

The structural model also accounts for the understudied constructs' indirect impact on environmental performance. According to the findings, GHRM practices significantly impact environmental performance, as seen by ($\beta=0.450$, $t=7.594$) with the mediated role VB Gayed Employee Green Involvement (EGI).

The coefficient of determination (R^2) of the proposed model was analyzed to assess the under-study constructs' predictive power. The coefficient tells regarding the degree of variation in the dependent variable caused by the independent variable. Moreover, the adjusted R^2 demonstrates the degree of variance in the endogenous construct caused by the exogenous construct. As seen from table 5, the calculated R^2 of EGI is 0.768, which indicates a 76% variation in EGI caused by the combined effect of the GHRM. The R^2 for environmental performance is 0.799, suggesting a 79% variation in environmental performance due to EGI. This can be observed in Table 5 and Figure 1.

Table 5 PATH COEFFICIENT: DIRECT AND INDIRECT RELATIONSHIP						
Relationship	Coefficient (β)	Sample Mean	Standard Error	t-value	p-values	Empirical remarks
Direct Effect						
Green HRM --> EGI	0.876	0.848	0.087	29.153	0	Supported
Green HRM --> EP	0.408	0.816	0.029	23.665	0	Supported
EGI --> EP	0.514	0.66	0.093	7.646	0	Supported
Indirect Effect						
Green HRM-->EGI -->EP	0.45	0.559	0.074	7.594	0	Supported
Construct	Coefficient of Determination (R^2)					
Employee Green Involvement (EGI)	0.768					
Environmental Performance	0.799					
Goodness of Fit	Value					
SRMR	0.07					
Source: Authors' own						

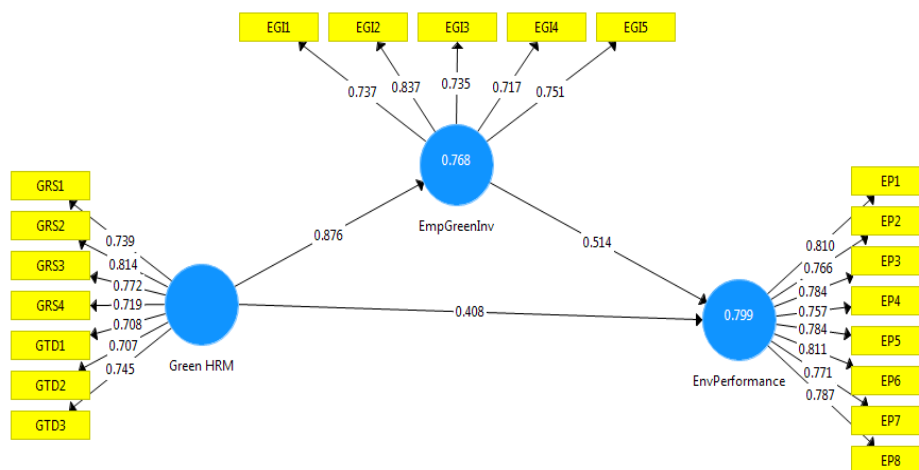


FIGURE 1
PATH ANALYSIS MODEL (EXTRACTED FROM SMARTPLS 3.0) SOURCE: AUTHORS' OWN

DISCUSSION

According to our results, GHRM has a significant impact on employee Green Involvement (EGI) (B=0.876 and P=0.000). This result is consistent with the theory, and it is claimed that green human resource management is a strong predictor of employee green involvement (Chaudhry, 2019; Tang et al., 2018). Employee green involvement is critical in enhancing the efficiency of environmental management systems, such as reducing waste and emissions in the workplace and allowing full use of resources, according to previous research (Florida & Davison 2001).

This research also showed Green Human Resource Management (GHRM) to have a significant relationship with environmental performance (B=0.408 and P=0.000). This finding is similar to research (Ren et al., 2020; Kim et al., 2019).

Another important result is that employee green involvement improves environmental performance ($B=0.514$ and $P=0.000$). This finding is in line with previous studies (Pham et al., 2019). Employee green involvement allows staff to engage in and initiate new eco-practice innovations (Daily et al., 2012; Masri & Jaaron, 2017) and develop green knowledge, skills, abilities, and behaviour (Daily et al., 2012; Masri & Jaaron, 2017; Paille, Boiral & Chen, 2013).

The researchers would also like to investigate the importance of employee green involvement as a mediator between green human resource management and environmental performance (Verde et al., 2014). Employee green involvement had a mediation influence in the partnership between green human resource management and environmental performance, according to the results of this study's mediation review. Consequently, it is recommended that organizations that use green human resource management practices can assist workers in enhancing their environmental expertise and knowledge. A person develops positive environmental performance as he or she gains skills and knowledge due to an organization's adoption of green human resource practices (Hussain, Hassan, Rafiq Abdullah & Quddus, 2020).

Theoretically, this research makes several significant contributions. To begin, this study looked at green HRM practices and their effect on environmental performance. This approach refers to GHRM Scholars' recent demands for further studies (Shoaib et al., 2020; Umrani et al., 2020). (2020). Second, this research looked at the possible mediation of employee green involvement, which had previously been neglected by academics (Gilal et al., 2019; Pham et al., 2019). As a result, this is a unique addition to the body of knowledge in the field of GHRM. Third, this research adds to the body of knowledge by discussing environmental phenomena in Asian economies, such as Pakistan, which is currently in the early stages of addressing environmental challenges in relation to the Paris Climate Agreement and the UN Framework Convention on Climate Change (UNFCCC) (Hussain, Golam, Quddus, Rafiq & Chien, 2021).

Our research determined best practices that can function as models for policymakers in the leather industry and helped direct them in developing sustainable employee initiatives. Green recruiting policies will focus on a company's environmental policy to promote applicants with a green mindset. Furthermore, environmental awareness and knowledge training initiatives are critical since employees with environmental skills are more likely to engage in pro-environmental behaviour. On the other hand, another finding shows that employee green involvement is crucial in adopting policies to promote green practices. GHRM practices may help leaders use employees' skills and expertise to provide alternatives to workplace environmental issues.

CONCLUSION

According to the research, environmentally aware business practices are increasingly regarded as essential for gaining a competitive advantage and preserving society's moral standards. Through environmental-related employee training and development, evaluations of employees' environmental task-related performance and a green reward system encourage employers to embrace green innovation. GHRM with employee green involvement incorporation is a viable approach for the manufacturing sector for environmental performance. More research is required, however, to accommodate GHRM and employee green involvement in the industry. It found green HRM practices and employee green involvement to affect environmental performance in the study significantly. This study viewed the employee level by examining green HRM practices. Future research may consider the impact of organizational level. Secondly, this study conducted only quantitative methods. Our study suggests employing mix methods better to understand the real-life experience of employees within the organization. Finally, this study applied only one mediator employee green involvement. The future researcher must explore other important mediators such as employee voice, green intellectual capital, and ethical leadership.

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