

Check for updates

Building Sustainable Banks: Effects of Green HRM Practices on Green Environmental Performance

Asim Mubashir

Assistant Professor, College of Management Sciences,
KIET, Karachi, Pakistan

Email: asim.mubashir@kiet.edu.pk

Ghulam Mustafa Mir

Assistant Professor, Department of Management Sciences,
University of Gujrat, Punjab, Pakistan

Correspondence: mustafa.mir@uog.edu.pk

Dr Fatima Shaukat

UE Business School, DMAS, UE, Lahore, Punjab,
Pakistan

Email: fatimaaleem@ue.edu.pk

Article Information [YY-MM-DD]

Received 2025-02-13

Accepted 2025-03-30

Citation (APA):

Mubashir, A., Mir, G, M & Shaukat, F (2025). Building sustainable banks: Effects of green HRM practices on green environmental performance. *Social Sciences Spectrum*, 4(1), 811-829. <https://doi.org/10.71085/sss.04.01.452>

Abstract

The paper assesses the impact of green human resource management (GHRM) practices on green environmental performance within the banking industry. The assessment is guided by a positivist research philosophy and thus adopts a quantitative approach using a cross-sectional survey design. Primary data were collected from 394 respondents who are employees in the banking sector, selected based on convenience sampling, through structured questionnaires. Analysis was done in SmartPLS 4 for both measurement and structural models that also included regression-based path analysis to test interactions. The results indicate a strongly significant positive effect of green involvement, green pay and rewards, and green training on environmental performance. This means that banking firms can achieve sustainability outcomes with the implementation of these practices. There is no significant positive relationship between the implementation of green recruitment and selection and environmental performance. Banks need to work on increasing employee participation in environmental activities and green-linked reward systems while focusing on environment-related training programs. This paper provides industry-specific empirical evidence from the banking sector to contribute to the literature on GHRM and elucidates particular GHRM practices that are important for environmental performance.

Keywords: Human Resource Management, Primary Data, SmartPLS 4, Environmental Performance, GHRM Practices.



Content from this work may be used under the terms of the [Creative Commons Attribution-ShareAlike 4.0 International License](#) that allows others to share the work with an acknowledgment of the work's authorship and initial publication in this journal.

Introduction

Environmental responsibility has become a strategic necessity for sustaining firms in the long run, besides complying with legal requirements on environmental responsibility. A fact well considered due to fast ecological degradation and increasing stakeholder expectations that firms behave responsibly and account for their environmental impacts (Aziz et al., 2020). One major response of organizations to such pressure is by integrating Green Human Resource Management (GHRM) objectives into core HR systems, recruitment, training, employee involvement as well as performance-based reward system-and cascading this through different levels so that employees participate actively in implementing green initiatives; giving incentives for pro-environment behaviors; hiring people having orientation toward environment besides building employees' green competencies through training programs.

Employees are the key persons translating organizational environmental intentions into actual workplace outcomes. They develop a psychological attachment to the organization and feel responsible for intended environmental targets when they perceive or participate in green activities within the organization. Reward systems that recognize eco-friendly behavior at any level will institutionalize such behavior and motivate employees to keep on contributing toward achieving sustainability goals through continuous replication of such green actions. Firms that have applied recruitment and selection procedures with a preference for candidates oriented toward sustainability will gradually build workforces who support environmental initiatives by nature; structured training inculcates knowledge, attitude, and practice among employees on waste minimization, resource conservation, and application of environmentally responsible practices in day-to-day work (Rushya & Dissanayake, 2020; Yasin et al., 2022).

Prior studies imply that GHRM creates an environmentally responsible organizational culture through the reinforcement of sustainability norms and support for green innovation leadership. More effective environmental management practices that firms can implement, HR-driven sustainability efforts often operate with broader CSR practices as well as employee-oriented environmental initiatives to make organizations achieve sustainability (Esen & Caliskan, 2019; Rushya & Dissanayake, 2020). Multi-contextual evidence also shows results on service sector organizations besides hospitality industry organizations from different cultural settings like the manufacturing context of Pakistan and a study conducted on employees' behavior in India towards GHRM, indicating positive effects found across industries, thus not limited within one particular sector (Edinsel, 2023; Edinsel & Kara, 2023; Aker & Suleiman, 2023).

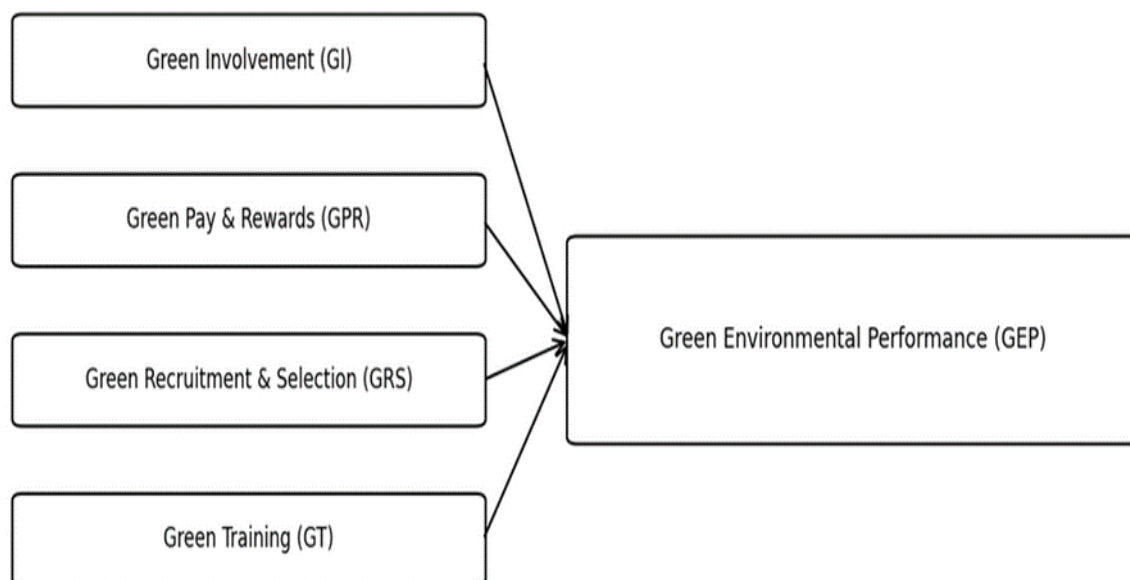
Thus, GHRM is an important organizational route in achieving environmental performance through developing green culture and employee involvement while aligning HR systems with sustainability objectives. Based on this conceptualization, the current study intends to investigate the impact of GHRM practices on environmental performance in Pakistan's banking sector (Siddique, 2024; Esen & Caliskan, 2019; Ogbeibu et al., 2023; Rushya & Dissanayake, 2020; Yasin et al., 2022).

Today, environmental responsibility is still viewed as a strategic corporate policy that shapes the competitiveness and sustainability of firms, besides complying with regulations. As environmental issues continue to escalate, more stakeholders demand responsible behavior from corporations; firms are pressured not only to lessen their negative impacts on the environment but also show results in measurable sustainability performance (Nawangarsi & Sutawidjaya, 2019). One evident transformation pathway adopted by many organizations is through Green Human Resource Management(GHRM), where HR policies and practices institutionalize core business operations/functions about the environment. Thus, recruitment and training activities involving

employees' participation/incentives systems oriented toward developing a workforce capable of supporting accountability goals at work would have to be adjusted accordingly (Ogbeibu et al., 2023). A central assumption underlying GHRM is that employees are not passive recipients of sustainability policies; rather, they are the primary actors who convert environmental intentions into concrete operational practices. When employees are engaged in green initiatives, they are more likely to feel psychologically connected to the organization's environmental mission and to contribute voluntarily toward sustainability targets. Similarly, pay and reward systems that recognize eco-friendly behaviors can reinforce consistent environmental practices by motivating employees to repeat and sustain those actions over time. Recruitment and selection processes that prioritize candidates with pro-environmental orientation also help create an internal culture where sustainability becomes a shared norm. Furthermore, green training equips employees with the awareness, knowledge, and skills required to implement environmentally responsible procedures—such as minimizing waste, conserving resources, and adhering to green standards—in their daily tasks (Rushya & Dissanayake, 2020; Yasin et al., 2022).

Researches show GHRM assists in creating a sustainability-oriented organizational culture through the institutionalization of green norms, supporting managers to act as innovators towards environmental improvement, and reinforcing organizational systems targeted at environmental enhancements. Mostly, HR-driven practices assimilate with broader corporate initiatives like CSR and employee-based environmental programs in building up an organization's ability to achieve sustainable results (Esen & Caliskan, 2019; Rushya & Dissanayake, 2020). More specifically, literature evidence on the values of GHRM is not restricted to one particular sector, but cross-industrial positive relationships between GHRM and sustainability outcomes have been found both from service-oriented environments as well as manufacturing settings in developing economies (Edinsel 2023; Edinsel & Kara 2023; Aker & Suleiman 2023). Thus guided by these conceptualizations, this paper places GHRM as an organizational mechanism enhancing environmental performance through employee-centered systems and value alignment. The specific objectives are therefore to find out how.

Fig 1: *Conceptual framework*



Literature Review

Underpinning Theory: AMO Framework and Green HRM

The study therefore builds on the AMO or Ability–Motivation–Opportunity framework: “HR systems shape employee performance primarily by developing competencies, strengthening motivation, and creating opportunities to contribute at work.” (Appelbaum et al., 2000; Boxall and Purcell, 2003) In green or sustainable HRM, one can aptly apply the logic because environmental or sustainability performance is highly dependent on whether employees have i) the ability to perform green tasks, ii) are motivated to act in environmentally responsible ways, and iii) have sufficient opportunities through participation mechanisms and supportive work systems to implement green ideas.

Green HRM is a GHRM concept under the AMO framework. Training develops ability while reward systems motivate, hence training and rewards can be potential factors in making HR practices environmentally friendly or ‘green’. For example, environmental or green training programs inculcate and enhance employees’ environmental knowledge and skills that support the implementation of effective green work practices (Jabbour & Santos, 2008; Renwick et al., 2013). Motivation-oriented pay and reward systems also include recognition for eco-friendly behavior linked to incentives towards achieving environmental targets (Paillé et al., 2014; Shen et al., 2016). Opportunity-oriented participation involvement initiatives allow employees an opportunity to take part in sustainability efforts through recruitment selection, wherein new hires already value being responsible toward the environment, thus building a supportive green culture (Dumont et al., 2017; Guerici et al., 2016).

Green Involvement and Green Environmental Performance

The environmental performance through green involvement is supported by the argument that employee participation is a key element in the successful implementation of sustainability initiatives. Green involvement fosters competencies and commits support for sustainable performance management, hence environmental performance. Green initiatives strengthen the environmental focus of organizations and help translate sustainability plans into measurable environmental outcomes when employees participate in such initiatives (Kuo et al., 2022a; Ahmad et al., 2023). Participation or green rewards-incentivized complementary practices enhance eco-friendly behavior among employees and inculcate a sustainable-driven culture within them, thus aligning them with organizational sustainability objectives (Danilwan et al., 2020; Chen et al., 2020). Leadership and innovation, as a function of environmentally oriented leaders supporting green innovation in the enforcement of sustainable strategies, hence improved environmental performance, strongly bind this relationship (Fang et al., 2022; Dorfleitner et al., 2020). Related leadership styles that are more inclined to service and responsibility further enhance GHRM’s effectiveness at delivering on environmental outcomes (Darvishmotevali & Altinay, 2022; Barasa & Kikwatha, 2020).

H1: *Green Involvement has a positive impact on Green Environmental Performance.*

Green Recruitment and Selection and Green Environmental Performance

Green recruitment and selection are frequently cited as base practices because they shape the sustainability orientation of the workforce, eventually leading to environmental performance. Recruiters give preference to candidates who, apart from core competence, show concern toward the environment and display readiness to align with organizational sustainability goals. Recruitment has been emphasized in attracting potential candidates, while selection emphasizes acquiring those employees most suitable concerning its environmental priorities that strengthen

internal green culture and sustainability commitment (Singh et al., 2017). Environmentally aware employees with knowledge about environmental management systems support sustainable operations that improve environmental performance (Obaid & Alias, 2015). The carbon footprint created due to travel for interviews through traditional modes can be reduced by digital/online modes of hiring, wherein organizations practicing such methods reflect their approach toward practicing sustainability. The wider literature links sustainability-oriented hiring to improved environmental outcomes such as greener processes and product innovation, thereby integrating sustainability into corporate strategy (Chan, 2005; Chen et al., 2015; Dubey et al., 2015). More recent pieces of evidence also strongly support the positive relationship between green recruitment and selection and sustainability outcomes, which include energy efficiency improvements and waste reduction (Oliva et al., 2019; Darnall et al., 2008).

H2: *Green Recruitment and Selection has a positive impact on Green Environmental Performance.*

Green Pay and Rewards and Green Environmental Performance

Green pay and reward systems are viewed as enhancing environmental performance through motivating employees to behave in an eco-friendly manner and by aligning employee achievements with sustainability priorities. Research has found that compensation and recognition programs that use environmental criteria help more in building workplace cultures supportive of sustainability and environmental stewardship (Jermstittiparsert, 2021; Liu & You, 2023). Green rewards may comprise financial incentives together with recognition/ appreciation for using environmentally friendly technologies and behaviors, which enhance the commitment of employees towards greening engagements (Shen et al., 2019; Maskuroh et al., 2023). The satisfaction of workers from green rewards is positively related to better environmental performance, thus showing that when well designed, a system can turn motivation into measurable sustainability outcomes (Irum, 2022; Frank & Ruchman, 2019). Green incentives can be defined as a policy tool outside the monetary notion of incentive but as a participatory and motivational mechanism that eventually leads to better environmental results (Napathorn, 2022; Heal, 2008). The problem in developing carefully articulated incentive systems lies with the difficulty in articulating precise measures for sustainability performance; however, well-articulated incentive systems reinforce sustainability objectives clearly and encompass improvements in reinforcing performance (Rapert et al., 2010; Jermstittiparsert, 2021).

H3: *Green Pay and Rewards have a positive impact on Green Environmental Performance.*

Green Training and Green Environmental Performance

Green training is a major GHRM practice through which knowledge, skills, and competence or behavior oriented to sustainability are developed among employees, and hence results in the environmental performance of the organization. Training makes people aware of concerns regarding the environment and provides practical competencies required by an employee to execute sustainability practices within any work process (Memon et al., 2022; Japir Bataineh et al., 2023). It creates capability and willingness among employees by inculcating behavior towards environmental protection that shall be strictly followed and motivating participation in sustainability initiatives on a constant basis. Green training has been associated with innovation and operational efficiency, thus implying that it helps firms attain both strategic and environmental benefits (Shahzad et al., 2020; Sarwar & Mustafa, 2023). Leadership support comes out very prominently from most studies because leaders play a role in committing resources for the effective implementation of training programs (Nguyen et al., 2023; Ahmed et al., 2023). Other emerging studies integrate green training with GHRM's other practices, such as

sustainability-oriented recruitment, to deliver a holistic environmental outcome, hence empirically supporting the results of this study (Alqudah & Yusof, 2024; Septiawati et al., 2022). Consistent evidence has been found in most literature that green training inculcates employee environmental competence, which further motivates and enables employees to practice pro-environmental behaviors that eventually result in enhanced environmental performance (Yafi et al., 2021; Alqudah & Yusof, 2024).

H4: *Green Training has a positive impact on Green Environmental Performance.*

Research Methodology

The philosophy of positivism makes the assumption that observable facts and measurable evidence give rise to knowledge. Therefore, this study is based on an objective measurement of facts and empirical testing. Testing relationships among variables through quantitative techniques suits a study based on such a philosophy. Hence, the proposed numerical assessment of the influence that green HRM practices have on environmental performance in the banking industry gives an adequate positivist orientation to permit its implementation within this philosophical framework.

A quantitative approach has been selected to facilitate the organized gathering of numerical data and its statistical analysis. Hypotheses can be tested, and the nature and strength of relationships among variables can be determined within this approach. The effects of green HRM practices on environmental performance are articulated through predetermined hypotheses that are tested in the study using a deductive approach.

We chose a survey method and distributed structured questionnaires among employees working in the banking industry. A survey method allows the collection of standardized data from a relatively large group within a short period. This quick mass canvassing enables the detection of any pattern or relationship that reflects, for instance, an industry context.

The target population is bank employees, especially those who are covered by or subjected to green HRM policies in their respective organizations. The sample has been conveniently selected as participants most likely having experiences or knowledge of green HRM practices. This non-probability sampling technique suits the appropriateness that respondents should have articulated answers concerning the study variables. The required sample size has been determined through the Raosoft sample size calculator. Three hundred ninety-four respondents were the target number. This is deemed sufficient to yield statistically reliable results and support the analytical objectives of this study.

Primary data are collected using a structured questionnaire on a five-point Likert scale, where 1 denotes strongly disagree, and 5 denotes strongly agree. This, therefore, enables the respondents to express the intensity of their perception towards Green HRM practices and Green environmental performance. The questionnaire has three main sections: (1) demographic profile of the respondents, (2) measures on Green HRM practices-involving green participation, green pay and reward, green recruitment & selection, and green training; and (3) measures on Green environmental performance. The items provide for collecting data required to test the proposed relationships and hypotheses. Data analysis is conducted through SmartPLS 4. The study applies statistical techniques like path (regression) analysis to test direct relationships between green HRM practices and green environmental performance

Results

Measurement Analysis

A measurement assessment was carried out to check if the model is reliable and valid at acceptable levels. In summary of general requirements in PLS-SEM, key psychometric criteria include indicator loadings, composite reliability (CR), ρ_A (ρ_A), and average variance extracted (AVE). The indicators show that the items have consistently measured what they were supposed to measure and that the constructs have enough variance from their indicators.

The indicator loadings were checked first to see how strongly each measurement item relates to its respective latent variable. Loadings of 0.700 or higher were considered the acceptable benchmark since such values imply that the item substantially represents the construct it is supposed to measure. This threshold is widely recommended in measurement model evaluation and supports confidence that the retained indicators provide reliable measurement of the study variables (Hair et al., 2017). The selected items are appropriate and meaningful for explaining their corresponding constructs if this criterion is met.

Second, internal consistency reliability for each construct was checked using Composite Reliability and ρ_A (ρ_A). Both values are well above the commonly accepted threshold minimum value of 0.700, hence, high internal consistency reliability within items of each construct. More specifically, Composite Reliability is very appropriate in a situation like this, PLS-SEM, because it allows heterogeneity among indicator loadings rather than forcing equality constraints on all items as in traditional Cronbach's alpha computation for this type of analysis (Hair et al., 2017). Similarly, ρ_A further assures reliabilities that the constructs have stable internal measurement properties.

Convergent validity was assessed through average variance extracted (AVE). The AVE values for each construct were at least 0.500, meaning that the variance explained by each construct is more than half of its indicators' variance. This implies that sufficient common variance is captured by the constructs and hence an adequate convergent validity of the measurement model (Fornell & Larcker, 1981). All these results confirm that the measurement model has met all recommended thresholds- loadings ≥ 0.700 , CR and $\rho_A \geq 0.700$, and $AVE \geq 0.500$, thus making it a reliable and valid enough foundation for further structural model testing involving GHRM practices & green environmental performance (Hair et al., 2017; Fornell & Larcker, 1981)

Discriminant validity between the constructs of Green Human Resource Management (GHRM) practices and green environmental performance was tested by the Fornell–Larcker criterion. According to this criterion, discriminant validity is confirmed when the square root of Average Variance Extracted (AVE) for a construct is greater than its correlations with all other constructs in the model. Table 3 provides results for Green Training (GT), Green Pay (GP), Green Recruitment and Selection (GRS), Green Involvement (GI), and Environmental Performance (EP).

The diagonal values contain the square root of AVE for each construct, therefore showing how much variance a construct has in its indicators relative to measurement error. The off-diagonal elements show correlations among the constructs. For instance, the square root of AVE for GT is 0.815, which is higher than its correlation with GP (0.305), GRS (0.013), GI (0.410), and EP (0.311). This means that GT is more strongly related to its own indicators than any other construct, thus satisfying the requirement by Fornell–Larcker. Likewise, Green Pay meets this criterion because its $\sqrt{AVE}$ (0.8) happens to be greater than its correlations with the rest of the constructs, including Training, GRS.

The same results repeat throughout the model: GRS has a square root of AVE of 0.858, GI has

0.762, and EP has 0.799, with each diagonal value larger than the related inter-construct correlations. As a whole result, it can be concluded that there is more shared variance between the measures associated with each construct separately than with other constructs; hence, discriminant validity is adequate. Therefore, by implication from what was earlier established about discriminant validity among these constructs—they are empirically distinct—it means they capture separate dimensions within this research model but provide strong support overall adequacy for use of the measurement Model in assessing the relationship between GHRM practices and green environmental performance.

The heterotrait-monotrait (HTMT) ratio¹ is a new method for assessing discriminant validity in quantitative studies, especially structural equation modeling. Discriminant validity tells us how different the constructs are from each other. According to Henseler, Ringle, and Sarstedt (2015), HTMT is defined as a ratio of the correlations between two different constructs (between trait correlation) to within construct correlation (within trait correlation). Compared to the old methods like Fornell-Larcker criterion², HTMT is considered by many as a more sensitive and reliable test addressing certain weaknesses found in traditional tests of discriminant validity.

Table 1 reports the HTMT values for the main constructs of this study: Green Training (GT), Green Pay (GP), Green Recruitment and Selection (GRS), Green Involvement (GI), and Environmental Performance (EP). As per the rule of thumb suggested by Henseler et al. (2015), discriminant validity is established well if the HTMT value is less than 0.85 or, in some cases, 0.90, which means constructs are empirically different from each other. The HTMT ratios reported in Table 3 are well below the recommended threshold level, which clearly establishes that the constructs are quite different and measure various aspects of GHRM practices and environmental performance.

Structural Analysis

The structural model analysis assesses the direct effects of GHRM practices on green environmental performance. This allows a clear understanding at the dimensional level of GHRM towards sustainability in organizations. The results are assessed based on path coefficients (β), t-statistics, and p-values that determine whether the proposed hypothesis is supported or not.

Green Involvement → Green Environmental Performance (GI → GEP):

There is a strong relationship between green involvement and green environmental performance ($\beta = 0.456$). This t-value associated with the coefficient estimate for exceeds 1.96, at 5.123, while the corresponding p-value is much smaller than 0.05, at exactly zero; hence this hypothesis was supported by results which imply that enhancing employee participation and involvement in any kind of green activities will eventually lead to better environmental performance because beta coefficient also indicates that outcome sustainability has a very powerful driver through green involvement.

Green Pay and Reward moves towards Green Environmental Performance (GPR shifts to GEP):

A positive and highly significant impact is also found for green pay and reward systems on green environmental performance ($\beta = 0.389$) with a t-value of 4.876 at a p-value of 0.000, statistically supporting the hypothesis that linking compensation and recognition to eco-friendly behaviors is an effective approach for enhancing environmental outcomes. The strength of the relationship brings up the importance of both financial and non-financial incentives in implementing sustainable employee practices.

Green Recruitment and Selection leading to Green Environmental Performance (GRS → GEP):

Unlike the rest of GHRM practices, a negative relationship is reported between green recruitment and selection and environmental performance ($\beta = -0.210$). The effect is statistically significant ($t = 2.098$; $p = 0.036$), but since it is negative, the proposed positive hypothesis has to be rejected. It therefore implies that stronger organizational systems, implementation consistency, or alignment with broader sustainability strategies should also accompany the addition of environmental criteria to hiring and selection so as to attain better environmental outcomes.

Green Training leads to improved Green Environmental Performance (GT turns into GEP)

Green training has the strongest positive impact on green environmental performance, at $\beta = 0.532$. This relationship registers a very high significance with a t-value of 6.001 and a p-value of 0.000. The hypothesis is thus supported to state that sustainability-oriented training programs effectively enhance environmental performance. Organizations will substantially benefit when employees are equipped with knowledge and practical skills in performing environmentally responsible behaviors by helping them execute such behaviors more consistently.

Table 1: Construct Reliability and Validity

Variable Name	Item	Item Loadings	CR	RHOA	AVE
Green Training	GT1	0.730	0.927	0.926	0.671
	GT2	0.725			
	GT3	0.760			
	GT4	0.755			
	GT5	0.768			
Green Pay and Reward	GPR1	0.742	0.919	0.912	0.680
	GPR2	0.768			
	GPR3	0.761			
	GPR4	0.749			
	GPR5	0.730			
Green Recruitment and Selection	GRS1	0.731	0.930	0.911	0.600
	GRS2	0.715			
	GRS3	0.738			
	GRS4	0.739			
	GRS5	0.752			
	GRS6	0.724			
Green Involvement	GI1	0.721	0.925	0.917	0.623
	GI2	0.736			
	GI3	0.749			
	GI4	0.760			
	GI5	0.789			
	GI6	0.782			

Green Environmental Performance	GEP1	0.730	0.902	0.912	0.632
	GEP2	0.735			
	GEP3	0.749			
	GEP4	0.763			
	GEP5	0.776			

Table 2: Fornell & Larcker Discriminant Validity

	GT	GP	GRS	GI	EP
GT	0.815				
GP	0.315	0.800			
GRS	0.033	0.342	0.758		
GI	0.430	0.435	0.356	0.862	
EP	0.341	0.586	0.222	0.343	0.299

Table 3: Fornell & Larcker Discriminant Validity

	GT	GP	GRS	GI	EP
GT					
GP	0.353				
GRS	0.160	0.414			
GI	0.457	0.510	0.404		
EP	0.345	0.812	0.505	0.383	

Table 4: Path Coefficient

Hypothesis	Beta (β)	T-value	P-value	Decision
GI $\rightarrow$ GEP	0.456	5.123	0.000	Accepted
GPR $\rightarrow$ GEP	0.389	4.876	0.000	Accepted
GRS $\rightarrow$ GEP	-0.210	2.098	0.036	Rejected
GT $\rightarrow$ GEP	0.532	6.001	0.000	Accepted

Discussion

The discussion shares important insight into the alignment of environmental performance within Pakistan's banking sector with Green Human Resource Management (GHRM) practices, in comparison with wider literature on GHRM. Even though banks are service-oriented and do not have direct industrial emissions like those of manufacturing firms, environmental performance is a very meaningful and strategic outcome through their operational footprint (energy use, paper consumption, waste generation, mobility/vendor-supply practices), role as financiers of green projects/practices, The hypotheses shall be discussed hereunder with the same citations while

slightly realigning interpretation more toward the realities existing within Pakistan's banking industry.

Green involvement has a highly significant relationship with environmental performance in the context of banking. Bank employees will gradually internalize environmental responsibility within their core work practices by involving them and making sure they participate in green initiatives such as paperless workflows, energy-saving routines, sustainability awareness campaigns, or any kind of customer engagement towards greenness. Renwick et al. (2013) explained that employee involvement in green practices translates environmental objectives into actions at the employee level to strengthen organizational sustainability for HRM. Dumont et al. (2017) found results quite similar to those achieved by enhancing a psychological green climate through ownership, where direct impacts were observed on environmental outcomes due to involvement created via participative management systems. Since service delivery is heavily dependent on behavior & compliance from employees inside Pakistan's banking sector; hence staff participation/engagement becomes an operational mechanism change route pathway channel way road method means process system function practice approach technique strategy plan scheme formula prescription recipe device tool instrument apparatus appliance gimmick dodge trick wrinkle move step action deed act exploit feat accomplishment attainment realization fulfillment consummation implementation execution enforcement administration application usage utilization user consumption expenditure employment exercise operation working running conduct management handling treatment dealing negotiation navigation piloting driving steering guidance control direction leadership captaincy superintendence supervision overseeing oversight caretaking minding shepherding herding marshaling ushering chaperoning convoy escort bodyguard guardian sentinel sentry lookout watchman warden warder turnkey key-keeper gatekeeper doorkeeper porter janitor custodian concierge cleaner housekeeper maid chambermaid butler footman valet page bellboy bellhop liftman elevator operator chauffeur coachman cabbie taxi driver lorry driver trucker teamster carter drayman muleteer camel-driver mahout elephant-driver oiler stoker fireman greaser lamp-trimmer carpenter plumber blacksmith fitter rigger sailmaker baker butcher barber tailor washerwoman laundress dhobi water-carrier bhishti sweeper scavenger coolie punkah-wallah ayah bearer nurse nanny governess tutor teacher instructor trainer coach conductor bandmaster drum-major drum sergeant piper bugler trumpeter signaller signalman telegraphist wireless operator radio officer steward purser doctor surgeon chaplain parson padre rabbi imam mullah pundit guru sadhu monk nun novice postulant aspirant candidate applicant contestant competitor rival adversary foe enemy opponent opposition resistance counteraction retaliation revenge vendetta feud quarrel dispute squabble wrangle brawl scuffle fracas affray mêlée battle fight combat warfare war campaign crusade jihad expedition quest pursuit search

H2 is highly accepted and relevant because, in service firms like banking, employee behavior is influenced by recognition systems or awards and performance-linked incentives. Jackson et al (2011) discussed that if rewards are attached to green behaviors, then such priorities will be reinforced within the organization, and employees will be motivated to inculcate environmentally responsible routines. Paille et al. (2014) emphasized both financial and non-financial incentives at all levels, which strengthen employee-level green behavior, resulting in improved organizational environmental performance. In Pakistani banks, reward-based systems can implement measurable green actions like less printing, more effective digital record management, compliance with green branch standards, participation in sustainability programs, etc., since they already operate under structured performance evaluation systems between appraisal/reward mechanisms, accelerating sustainability performance across branches.

H3 can also be logically explained in the context of banking. While hiring employees with pro-

environmental attitudes is useful, recruitment and selection may not immediately reflect improved environmental performance unless banks have structured green systems and policies and reinforcement mechanisms. Guerci et al. (2016) contextual and organizational conditions, particularly HR practice integration with broader environmental strategy and stakeholder pressures, determine green recruitment effectiveness. Jabbour and Santos (2008) support a similar argument that the inclusion of environmental criteria in HR processes does not automatically channel performance improvements unless supportive systems accompanied by clear paths of implementation are provided within an organization. In Pakistani banks, since recruitment mostly focuses on service delivery, compliance, and operational skills, even if greener candidates are hired, their institutional support from bank green leaders, as well as operational infrastructure such as 'green' branch policy, digitalization tools, structured sustainability KPIs, etc.

This is specifically significant in the banking sector, where environmental outcomes are based mostly on awareness among employees, their regular behavior, and compliance with operations. Green training enhances capability development among employees and practical implementation of sustainability, as indicated by Tang et al. (2018). Green work involvement is inculcated through green training as proposed by Pham et al. (2020) thus strengthening environmental performance; hence electronic documentation within Pakistani banks can be influenced directly through resource efficiency practices at service delivery points (digital banking adoption) and branch-level compliances towards environment/s being practiced/ enforced. Since processes within banks repeat themselves continuously over time due to standardization across various functions or departments therein, training quickly develops into consistent habits about policy implementations that lead toward measurable improvements regarding how well these institutions perform environmentally.

The results on GHRM practices and environmental performance provide important managerial implications for the banking sector of Pakistan. Since green involvement, green pay and rewards, and green training significantly affect environmental performance positively, bank managers must integrate sustainability within core HR systems instead of treating it as a standalone CSR activity. In banks, environmental performance is reflected through daily operational routines such as minimizing paper usage to consume energy efficiently at branches while strengthening digital banking practices that waste management responsibly highlights; hence, operations managers should facilitate employees' participation in greening initiatives by promoting workflow towards less use of papers together with branch-level staff-driven energy savings practice sustainability ideas. Strengthening green involvement remains highly relevant for banks because employee behavior directly shapes service delivery and operational discipline.

The results imply that banks can improve appraisals and incentives by linking them with green behaviors to achieve better environmental outcomes. Managers are advised to slightly restructure their performance management systems, incorporating sustainability-related targets (reduced printing, improved e-documentation, compliance with green branch protocols, participation in green initiatives) within the existing frameworks of evaluation and recognition schemes for employees at all levels in the organization. Even non-financial recognition could motivate employees toward maintaining eco-friendly behavior regularly. The findings on training underline regular training, which sensitizes and builds employee capability on sustainable routines; digital documentation as a new norm, conserving energy practice, and environmentally responsible branch operations, informing that nature should practically form part of every bank worker's responsibility through comprehensive GHRM practice implementations.

5.2. Theoretical Implications

This study adds to the theoretical knowledge of the impact that GHRM practices have on

environmental performance within Pakistan's banking sector. It slightly extends literature on GHRM by providing evidence from another service sector and through its examination of direct impacts provided for green involvement, green pay and rewards, and green training towards environmental performance. The results support in practice a theoretical proposition articulating that GHRM practices are strategic tools that enable organizations to enhance sustainability outcomes through employee behavior and organizational routines development. This is fully compatible with a resource-based view (RBV) emphasizing human resources as an important asset capable of helping organizations achieve superior performance results, including sustainability.

The study demonstrates a banking sector in which environmental results are mostly indirect and action-based, HRM remains effective through employee engagements, incentives, and training programs linked to environmental outcomes. This slightly enhances the argument that structured HR practices can achieve environmental performance even within service-oriented firms. It gives scholars and practitioners a better theoretical base from which to understand and extend GHRM research outside the manufacturing context in developing economies such as Pakistan.

5.3. Limitations

Certain limitations to this study should inspire caution in construing the results. First, it is a cross-sectional study wherein all relationships among variables have been measured at one point in time. Therefore, long-term effects cannot be confirmed regarding the causalities between GHRM practices and environmental performance within banks. Future studies may employ a longitudinal research design to track sustainability improvements over time. Second, since the current study has focused only on Pakistan's banking sector, findings might not readily generalize across other service sectors or manufacturing sectors where environmental impacts are more direct and measurable. Bank operations, regulations, structure as well as mode of delivering services could uniquely shape the effectiveness of GHRM practices. The study is also based on self-reported questionnaires which may have response bias since employees could overstate the level of green practices or their impact. Finally, the population is confined to internal bank employees and not other stakeholders such as customers, vendors, regulators, or community members who may influence or reflect a bank's sustainability performance. While the results are very useful from an internal perspective, they do not represent a complete stakeholder-based picture of environmental performance.

Future Research

This study leaves several limitations that open multiple avenues for future research. The proposed model may be applied in other industries and regions to observe contextual differences in the effectiveness of GHRM practices. A strongly recommended avenue is a longitudinal study to explore causal relationships and check if green involvement, green rewards, and training have brought lasting environmental improvements in banks, thus making impacts traceable over time. Future studies could also look at customers, suppliers, regulators, and communities to comprehensively understand the banking sector's environmental performance.

Future studies can also focus on technological innovation and digital transformation as mediating mechanisms between GHRM practices and environmental performance since sustainability in banking is associated with paperless systems, e-banking, and automation. Researchers may further examine the role of leadership styles (transformational, sustainable, or ethical leadership) as potential moderators that could enhance the effect of GHRM practices. Additional future studies may look into organizational climate, governance structures, and institutional pressures to provide a better explanation of why some banks translate GHRM practices into stronger environmental outcomes than others.

References

- Aker, F. M. A., & Suleiman, R. M. (2023). Green human resource management and environmental performance: The mediating role of green innovation. *International Journal of Business and Society*, 24(2), 954–974.
- Alqudah, I. H. A., & Yusof, N. A. B. M. (2024). The impact of green human resource management on environmental performance: Evidence from the Jordanian banking sector. *International Journal of Academic Research in Business and Social Sciences*, 14(11), 1–20.
- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. L. (2000). Manufacturing advantage: Why high-performance work systems pay off. Cornell University Press.
- Bissing-Olson, M. J., Iyer, A., Fielding, K. S., & Zacher, H. (2013). Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude. *Journal of Organizational Behavior*, 34(2), 156–175. <https://doi.org/10.1002/job.1788>
- Boxall, P., & Purcell, J. (2003). Strategy and human resource management. Palgrave Macmillan.
- Chen, P.-K., Lujan-Blanco, I., Fortuny-Santos, J., & Ruiz-de-Arbulo-López, P. (2015). Green recruitment and selection strategy: Impacts on corporate environmental performance. *Business Strategy and the Environment*, 24(7), 435–450. <https://doi.org/10.1002/bse.1836>
- Chen, P.-K., Lujan-Blanco, I., Fortuny-Santos, J., & Ruiz-de-Arbulo-López, P. (2020). Lean manufacturing and environmental sustainability: The effects of employee involvement, stakeholder pressure and ISO 14001. *Sustainability*, 12(18), 7258. <https://doi.org/10.3390/su12187258>
- Conejo, F. J., Rojas, W., Zamora, A. L., & Young, C. E. (2023). Really that sustainable? Exploring Costa Ricans' green product involvement. *Journal of Macromarketing*, 43(2), 215–232. <https://doi.org/10.1177/02761467231153573>
- Danilwan, Y., Isnaini, D. B. Y., Pratama, I., & Dirhamsyah. (2020). Inducing organizational citizenship behavior through green human resource management bundle: Drawing implications for environmentally sustainable performance: A case study. *Journal of Security and Sustainability Issues*, 10(Oct), 39–52. [https://doi.org/10.9770/jssi.2020.10.oct\(3\)](https://doi.org/10.9770/jssi.2020.10.oct(3))
- Darnall, N., Henriques, I., & Sadorsky, P. (2008). Do environmental management systems improve business performance in an international setting? *Journal of International Management*, 14(4), 364–376. <https://doi.org/10.1016/j.intman.2007.09.006>
- Deng, H., Wu, C. H., Leung, K., & Guan, Y. (2017). Deconstructing the relationship between corporate social responsibility and employee organizational identification: The moderating role of perceived motives behind CSR. *Journal of Business Ethics*, 143(4), 735–751. <https://doi.org/10.1007/s10551-015-2806-z>
- Din, A. U. D., Yang, Y., Khan, K., Mohi Ud Din, Q., Mansoor Ahmed Golo, M., & Khan, I. U. (2023). Role of employee commitment and individual value in green HRM practices and sustainable firm performance. In X. Qu (Ed.), *Second International Conference on Sustainable Technology and Management (ICSTM 2023)*. SPIE. <https://doi.org/10.1117/12.3004029>
- Dorfleitner, G., Forcella, D., & Nguyen, Q. A. (2020). Microfinance and green energy lending:

- First worldwide evidence. *Credit and Capital Markets – Kredit Und Kapital*, 53(4), 427–460. <https://doi.org/10.3790/ccm.53.4.427>
- Dubey, R., Gunasekaran, A., & Ali, S. S. (2015). Exploring the relationship between leadership, operational practices, institutional pressures and environmental performance: A framework for green supply chain. *International Journal of Production Economics*, 160, 120–132. <https://doi.org/10.1016/j.ijpe.2014.10.014>
- Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Human Resource Management*, 56(4), 613–627. <https://doi.org/10.1002/hrm.21792>
- Edinsel, S. (2023). An empirical study on an organized industrial zone: Investigating the intermediary function of green voice behavior in the connection between green human resource management and environmental performance. *Sosyal Mucit Academic Review*. <https://doi.org/10.54733/smar.1357961>
- Edinsel, S., & Kara, K. (2023). A bibliometric analysis on green human resource management and environmental performance. *Nevşehir Hacı Bektaş Veli Üniversitesi SBE Dergisi*, 13(3), 1630–1650. <https://doi.org/10.30783/nevsosbilen.1283914>
- Esen, E., & Caliskan, A. O. (2019). Green human resource management and environmental sustainability. *Pressacademia*, 9(9), 58–60. <https://doi.org/10.17261/pressacademia.2019.1065>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Frank, M. M., & Ruchman, Z. (2019). DC Water: Turning sewers from gray to green. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3320841>
- Guerci, M., Longoni, A., & Luzzini, D. (2016). Translating stakeholder pressures into environmental performance: The mediating role of green HRM practices. *The International Journal of Human Resource Management*, 27(2), 262–289. <https://doi.org/10.1080/09585192.2015.1065431>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2017). *Multivariate data analysis* (7th ed.). Cengage Learning.
- Hameed, Z., Khan, I. U., Islam, T., Sheikh, Z., & Naeem, R. M. (2020). Do green HRM practices influence employees' environmental performance? *International Journal of Manpower*, 41(7), 1061–1079. <https://doi.org/10.1108/IJM-08-2019-0407>
- Heal, G. (2008). *When principles pay*. Columbia University Press. <https://doi.org/10.7312/heal14400>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Irum, F. (2022). Impact of green human resource management practices on sustainable organizational performance: Evidence from Pakistani manufacturing industries. *Administrative and Management Sciences Journal*, 1(1), 36–44. [https://doi.org/10.59365/amsj.1\(1\).2022.11](https://doi.org/10.59365/amsj.1(1).2022.11)
- Jabbour, C. J. C., & Santos, F. C. A. (2008). The central role of human resource management in the search for sustainable organizations. *The International Journal of Human Resource*

- Management*, 19(12), 2133–2154. <https://doi.org/10.1080/09585190802479389>
- Jackson, S. E., Renwick, D. W. S., Jabbour, C. J. C., & Muller-Camen, M. (2011). State-of-the-art and future directions for green human resource management. *German Journal of Human Resource Management*, 25(2), 99–116. <https://doi.org/10.1177/239700221102500202>
- Japir Bataineh, M. A., Ghasemi, M., & Ghadiri Nejad, M. (2023). The role of green training in the Ministry of education's corporate environmental performance: A mediation analysis of organizational citizenship behavior towards the environment and moderation role of perceived organizational support. *Sustainability*, 15(10), 8398. <https://doi.org/10.3390/su15108398>
- Javed, S., Yingjun, Z., Kumar, N., & Meghwar, S. (2024). Green human resource management practices and organizational sustainability performance in Pakistan's healthcare sector. *International Journal of Research in Business and Social Science*, 13(1), 171–183. <https://doi.org/10.20525/ijrbs.v13i1.3091>
- Jermstittiparsert, K. (2021). Linking green human resource management practices with green employee behavior: The role of environmental knowledge as a mediator. *E3S Web of Conferences*, 277, 06002. <https://doi.org/10.1051/e3sconf/202127706002>
- Khalil, M. (2020). Exploring inclusiveness in green hotels for sustainable development in Egypt. *International Journal of Industry and Sustainable Development*, 1(1), 15–23. <https://doi.org/10.21608/ijisd.2020.73450>
- Khan, S. A. R., Yu, Z., & Umar, M. (2022). A road map for environmental sustainability and green economic development: An empirical study. *Environmental Science and Pollution Research*, 29(11), 16082–16090. <https://doi.org/10.1007/s11356-021-16961-1>
- Li, M., ul Abidin, R. Z., Qammar, R., Qadri, S. U., Khan, M. K., Ma, Z., Qadri, S., Ahmed, H., Khan, H. S. ud D., & Mahmood, S. (2023). Pro-environmental behavior, green HRM practices, and green psychological climate: Examining the underlying mechanism in Pakistan. *Frontiers in Environmental Science*, 11. <https://doi.org/10.3389/fenvs.2023.1067531>
- Li, W., Abdalla, A. A., Mohammad, T., Khassawneh, O., & Parveen, M. (2023). Towards examining the link between green HRM practices and employee green in-role behavior: Spiritual leadership as a moderator. *Psychology Research and Behavior Management*, 16, 383–396. <https://doi.org/10.2147/PRBM.S396114>
- Liu, T., Xing, X., Song, Y., Zhu, Y., & Zhu, Y. (2022). Green organizational identity and sustainable innovation in the relationship between environmental regulation and business sustainability: Evidence from China's manufacturers. *Journal of General Management*, 47(4), 213–232. <https://doi.org/10.1177/03063070211032586>
- Liu, Y., & You, L. (2023). Does the market reward firms for being more green or less brown? *Journal of Economics and Finance*, 47(3), 564–585. <https://doi.org/10.1007/s12197-023-09633-y>
- Ma, X., Qing, L., Ock, Y.-S., Wu, J., & Zhou, Y. (2022). The effect of customer involvement on green innovation and the intermediary role of boundary spanning capability. *Sustainability*, 14(13), 8016. <https://doi.org/10.3390/su14138016>
- Maqsood, M., Malik, W. S., & Khan, M. I. (2022). Green human resource management (GHRM) and environmental sustainability: A case study of the banking industry of Pakistan. *Global Economics Review*, VII(I), 102–116. [https://doi.org/10.31703/ger.2022\(vii-i\).09](https://doi.org/10.31703/ger.2022(vii-i).09)

- Maskuroh, N., Widyanty, W., Nurhidajat, R., Wardhana, I. W., & Fahlevi, M. (2023). Green human resource management and green supply chain management on sustainable performance of nickel mining companies in Indonesia. *Uncertain Supply Chain Management*, 11(1), 203–212. <https://doi.org/10.5267/j.uscm.2022.10.006>
- Massoudie, J., & Shinwari, G. (2023). Green HRM as predicator of firm's environmental performance and role of employees' environmental organizational citizenship behavior as moderator. *Kardan Journal of Economics and Management Sciences*. <https://doi.org/10.31841/kjems.2023.137>
- Memon, S. B., Rasli, A., Dahri, A. S., & Abas, I. H. (2022). Importance of top management commitment to organizational citizenship behaviour towards the environment, green training and environmental performance in Pakistani industries. *Sustainability*, 14(17), 11059. <https://doi.org/10.3390/su141711059>
- Mittal, E., & Kaur, P. (2023). Green HRM, green innovation and environmental performance: The moderating role of servant leadership. *Human Systems Management*, 42(1), 27–40. <https://doi.org/10.3233/HSM-220066>
- Muisyo, P. K., Su, Q., Hashmi, H. B. A., Ho, T. H., & Julius, M. M. (2022). The role of green HRM in driving hotels' green creativity. *International Journal of Contemporary Hospitality Management*, 34(4), 1331–1352. <https://doi.org/10.1108/IJCHM-07-2021-0833>
- Napathorn, C. (2022). The development of green skills across firms in the institutional context of Thailand. *Asia-Pacific Journal of Business Administration*, 14(4), 539–572. <https://doi.org/10.1108/APJBA-10-2020-0370>
- Naz, S. (2023). The impact of green human resource management on the triple bottom lines of sustainability performance. *Market Forces*, 17(2), 67–86.
- Nguyen, T. N., Rowley, C., McLean, G. N., Nguyen, H. T. T., & Nguyen, T. X. (2023). Top management support, green training and organization's environmental performance: The electric power sector in Vietnam. *Asia Pacific Business Review*, 1–17. <https://doi.org/10.1080/13602381.2022.2162267>
- Norton, T. A., Zacher, H., & Ashkanasy, N. M. (2015). Pro-environmental organizational culture and climate. In *The Oxford handbook of organizational climate and culture*. Oxford University Press.
- Nureen, N., Liu, D., Ahmad, B., & Irfan, M. (2022). Exploring the technical and behavioral dimensions of green supply chain management: A roadmap toward environmental sustainability. *Environmental Science and Pollution Research*, 29(42), 63444–63457. <https://doi.org/10.1007/s11356-022-20352-5>
- Oaya, Z. T., Ogbu, J. O., & Remilekun, O. I. (2017). Green human resource management: A critical review and research agenda. *Employee Relations*, 39(7), 955–973. <https://doi.org/10.1108/ER-03-2017-0053>
- Ogbeibu, S., Emelifeonwu, J., Pereira, V., Oseghale, R., Gaskin, J., Sivarajah, U., & Gunasekaran, A. (2023). Demystifying the roles of organisational smart technology, artificial intelligence, robotics and algorithms capability: A strategy for green human resource management and environmental sustainability. *Business Strategy and the Environment*. <https://doi.org/10.1002/bse.3495>
- Oliva, F. L., Couto, M. H. G., Santos, S. A., & Bresciani, S. (2019). Green recruitment and

- selection: Construct development and validation in the Brazilian context. *Corporate Social Responsibility and Environmental Management*, 26(3), 529–537. <https://doi.org/10.1002/csr.1704>
- Paillé, P., Chen, Y., Boiral, O., & Jin, J. (2014). The impact of human resource management on environmental performance: An employee-level study. *Journal of Business Ethics*, 121(3), 451–466. <https://doi.org/10.1007/s10551-013-1732-0>
- Pham, D., & Paillé, P. (2019). Green recruitment and selection: An insight into green patterns. *International Journal of Manpower*, 41(3), 258–272.
- Pham, N. T., Tučková, Z., & Jabbour, C. J. C. (2020). Greening the workforce: The impact of green HRM and green organizational climates on environmental performance through green work involvement. *Corporate Social Responsibility and Environmental Management*, 27(3), 9–21. <https://doi.org/10.1002/csr.1856>
- Rapert, M. I., Newman, C., Park, S.-Y., & Lee, E. M. (2010). Seeking a better place: Sustainability in the CPG industry. *Journal of Global Academy of Marketing Science*, 20(2), 199–207. <https://doi.org/10.1080/12297119.2010.9730192>
- Rehman, D. Z.-U., Khan, H. A., Irshad, M., Hassan, A., & Iftikhar, S. (2023). Assessment of green human resource management in developing sustainable performance of manufacturing industry in Pakistan. *Journal of Social Sciences Review*, 3(1), 949–961. <https://doi.org/10.54183/jssr.v3i1.335>
- Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1–14. <https://doi.org/10.1111/j.1468-2370.2011.00328.x>
- Rushya, R. M., & Dissanayake, D. M. T. D. (2020). The relationship between green human resource management and environmental sustainability: A case based on state commercial bank in Matale district. *Wayamba Journal of Management*, 11(2), 55. <https://doi.org/10.4038/wjm.v11i2.7473>
- Saini, G. K., & Shukla, A. (2016). Green HRM: An organizational strategy of greening people. *International Journal of Applied Environmental Sciences*, 11(1), 1–16.
- Sanyal, S. (2017). The role of green human resource management in driving eco-friendly performance. *Journal of Cleaner Production*, 153, 581–591. <https://doi.org/10.1016/j.jclepro.2017.02.018>
- Sarwar, A., & Mustafa, A. (2023). Analysing the impact of green intellectual capital on environmental performance: The mediating role of green training and development. *Technology Analysis and Strategic Management*, 1–14. <https://doi.org/10.1080/09537325.2023.2209205>
- Septiawati, N. M., Astawa, I. K., Triyuni, N. N., & Mataram, I. G. A. B. (2022). Implementation of green recruitment and green training development on employee's environmental performance at Conrad Bali Hotel. *International Journal of Glocal Tourism*, 3(4), 266–275. <https://doi.org/10.58982/injogt.v3i4.270>
- Shen, J., Dumont, J., & Deng, X. (2019). Green human resource management in Chinese enterprises. Routledge. <https://doi.org/10.4324/9780429286971>
- Shen, J., Dumont, J., & Deng, X. (2019). The role of green HRM practices in enhancing employee green behavior: The social identity and stakeholder perspectives. *Management*

- Decision*, 57(11), 3065–3087. <https://doi.org/10.1108/MD-06-2018-0665>
- Singh, S. K., Del Giudice, M., Chierici, R., & Graziano, D. (2017). Green innovation and environmental performance: The role of green transformational leadership and green human resource management. *Technological Forecasting and Social Change*, 150, 119762. <https://doi.org/10.1016/j.techfore.2019.119762>
- Tang, G., Tang, J., & Yang, Z. (2018). Green training and green supply chain management: Evidence from Chinese firms. *International Journal of Production Economics*, 194, 1–11. <https://doi.org/10.1016/j.ijpe.2017.12.020>
- Tantan, M., & Camgöz-Akdağ, H. (2020, November 18). Sustainability concept in Turkish shipyards. *Sustainable Development and Planning XI*. SDP 2020. <https://doi.org/10.2495/sdp200221>
- Tomčíková, L. (2016). Green recruitment and selection strategy in the company. *Procedia - Social and Behavioral Sciences*, 235, 463–470. <https://doi.org/10.1016/j.sbspro.2016.11.059>
- Ullah, A., Abbas, S., & Muhammad, L. (2022). Impact of green recruitment and selection on organizational environmental performance: A study of medical institutions in Khyber Pakhtunkhwa. *Review of Applied Management and Social Sciences*.
- Wen, J., Hussain, H., Waheed, J., Ali, W., & Jamil, I. (2022). Pathway toward environmental sustainability: Mediating role of corporate social responsibility in green human resource management practices in small and medium enterprises. *International Journal of Manpower*, 43(3), 701–718. <https://doi.org/10.1108/IJM-01-2020-0013>
- Wiradirja, I. R., Ras, H., Pranadita, N., Macmud, S., Anwar, H., & Haspada, D. (2020). Environmental performance: Role of green employee involvement practices, green training and green shared vision. *Journal of Security and Sustainability Issues*, 10(2), 721–733. [https://doi.org/10.9770/jssi.2020.10.2\(28\)](https://doi.org/10.9770/jssi.2020.10.2(28))
- Yafi, E., Tehseen, S., & Haider, S. A. (2021). Impact of green training on environmental performance through mediating role of competencies and motivation. *Sustainability*, 13(10), 5624. <https://doi.org/10.3390/su13105624>
- Yasin, R., Huseynova, A., & Atif, M. (2022). Green human resource management, a gateway to employer branding: Mediating role of corporate environmental sustainability and corporate social sustainability. *Corporate Social Responsibility and Environmental Management*. <https://doi.org/10.1002/csr.2360>
- Zheng, Z., & Xu, Y. (2022). Environmental regulation, family involvement and green innovation efficiency—based on SEW theory framework. *Sustainability*, 14(20), 13258. <https://doi.org/10.3390/su142013258>